

Alaska State-Wide Title V Needs Assessment

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II. Needs Assessment

Section B.

1. Process for Conducting Needs Assessment

Overall Needs Assessment Methodology and Process:

The prioritization process of the Needs Assessment consisted of four phases and took approximately five months to complete, beginning January 2005 and ending May 2005. During this period of time, several Women's, Children's, and Family Health (WCFH) Fact Sheets were developed and distributed to focus group participants, an on-line survey was developed to rank order issues, four half-day focus group Meetings occurred, and several additional half-day and full-day meetings with State staff and the contractor took place. State priorities were identified and ten State Performance Measures were developed as a result of the collaboration between dedicated stakeholders and WCFH State staff. Refer to Appendix X for membership makeup of the focus groups. Once the prioritization process was complete, the WCFH committee focused on target setting and outlining a system to keep the progress of the Needs Assessment moving forward.

Phase I of the prioritization process consisted of topic selection, data gathering and analyses, and development and technical writing of the WCFH Fact Sheets. We utilized a modified Hanlon-Pickett method for ranking the issues (described in detail under Phase II) which required that the fact sheets be fully integrated with the survey design. For this reason Phase I was done in tandem with the design of the survey.

Topics were selected by a committee of State staff from the Women's, Children's, and Family Health Section and an independent consultant contracted by the WCFH Section. There were two MCH Epidemiologists from the MCH Epidemiology Unit, one of which is also the State Pediatric Specialist; one representative from the Women's Health Unit; the WCFH Section Chief, and a statistician with data expertise in Alaska MCH issues.

There were four focus areas that issues were drawn from: Pregnant Women and Infants, Children and Adolescents, Children with Special Health Care Needs, and Women's

Health. Time constraints did not allow all selected topics to be addressed and presented through the process. Topics were narrowed down by identifying those that were most critical, those that were aligned with National and current State Performance Measures, Healthy People Objectives, and those that were the propriety of WCFH.

Fact sheets were developed for each topic that was identified by the WCFH committee. The fact sheet format was designed to provide the focus group stakeholders with information necessary to enable group discussions to determine a list of possible State priorities and State Performance Measures. Following our modified Hanlon-Pickett method, the fact sheets were comprised of three sections: **Seriousness**, **Interventions and Recommendations**, and **Capacity**. Information presented in these sections would later be used in the survey to rank issues and assist in selecting priorities.

Phase II of the prioritization process consisted of design, development, and analysis of the survey.

We utilized a modified Hanlon-Pickett method to rank issues and integrated this into the survey design. Focus group participants were asked to read the fact sheets and answer a corresponding survey for each issue, so designing both the survey and the fact sheets simultaneously created a cohesive model that was easy for the focus groups to use and understand.

For efficiency with data collection and analysis, an on-line survey was used. Using a likert-like scale, participants were asked to rate the issues based on the separate components, or sections, outlined in the section, 'Description of Quantitative and Qualitative Methods Used to Assess Needs'.

The following sections and subsections were used in the ranking algorithm: From **Seriousness** we used scores from *Severity*, *Urgency*, and *Disparities*. We felt these subsections together would give an overall picture of how serious the participants viewed a particular issue. We decided not to use the subsections *Healthy People 2010 Targets*

and National Data and *Economic Loss* in the weighting scheme since there was not consistent availability of data for comparability. For example, some issues did not have a HP2010 Objective and other objectives were in a developmental stage with no HP2010 target set. In some cases there was no national data for a direct comparison to State data. When issues received scores for ‘Not enough information to rate’ the ‘Seriousness’ score was inflated. ‘Seriousness’ comprised 60% of the total score, with equal weights to each of the subsections within this section.

This **Interventions and Recommendations** section consisted of only one subsection. Participants were asked to rate the following question, ‘Based on the available research and your professional experience and/or expertise, what is your opinion on how effective the intervention(s) might be in Alaska’. This section comprised 25% of the overall score. This question helped to focus on realistic priorities and goals.

This **Capacity** section consisted of the subsections *Propriety*, *Acceptability*, and *Resources*. These were asked as opinions of the participants, based on their knowledge and the information presented to them in the fact sheets. **Capacity** comprised 15% of the total score, with equal weights to each subsection.

The outcome of the surveys was not intended to serve as the decision of the focus group attendees for selecting State priorities and State Performance Measures, but as a starting point for the group discussion to help organize, group, and rank issues.

Phase III of the prioritization process were the four half-day focus group meetings. The desired outcome of these focus groups were to identify potential State Performance Measures for each of their respective MCH populations that WCFH staff would review in order to develop ten State Performance Measures and identify State Priorities. Participants received packets 1-2 weeks in advance of the focus group which contained the first edition of the Alaska MCH Data Book, providing them with a reference of the health status of Alaska’s MCH population. They also received copies of WCFH Fact Sheets for their specific MCH population, and copies of the most recent performance

measures, health status, and capacity indicators that are followed for the Title V Block Grant.

The State contracted a facilitator to lead and focus discussions during the meetings. The same facilitator was used for all meetings and an identical format was used to present information and guide discussion for all four focus group meetings. Survey results were presented to the groups at this time.

Phase IV of the prioritization process involved several meetings with the WCFH Section Chief and State staff from the MCH Epidemiology Unit. The MCH Epidemiology Unit plays a critical role in the data coordination efforts for the Title V Block Grant Application, as well as being the entity at the State level that monitors and analyzes MCH data and emerging issues. Several of the data sources that are necessary for the State Performance Measures are directly from programs in the MCH Epidemiology Unit (i.e., PRAMS, FASSP, MIMR, etc) and participation of those program managers were critical in defining the final version of the State Priority needs and State Performance Measures. Also, this is the only unit within Public Health that has the capacity, expertise and ability to understand and critically evaluate and analyze MCH data, data sources, and potential data source issues.

Once the prioritization process was completed and State Performance Measures had been developed, meetings with key State MCH staff occurred in order to set targets for the new State-negotiated Performance Measures as well as discussing and revising existing targets.

The State intends for the Needs Assessment process to be on-going throughout the five-year cycle. The structure is in place to produce yearly updates to the WCFH Fact Sheets that will be shared with the stakeholders from this process, State staff, and made widely available to the public/private health community. The MCH Epidemiology Unit produces an annual Alaska MCH Data Book that is widely distributed throughout the State. The current edition, focusing on Alaska PRAMS data, is in the final publication

process and will be available summer 2005. The subsequent edition is also well underway, focusing on data from the Alaska Birth Defects Registry. Meetings with stakeholders will be on-going throughout the five-year cycle, with at least one meeting per year to distribute fact sheets, discuss progress on the State priorities and activities, and any new developments that may impact the State's capacity to address identified issues.

Formal and Informal Collaboration (refer to Section C for complete discussion):

Attendees were selected for focus groups and asked to participate by the WCFH Section Chief. Selection was based on appropriateness of their background and expertise to the focus group population being addressed. Representation at the focus groups was broad, with a balance of professionals from the public health community; non-profit organizations including a local women's shelter, women's substance abuse treatment center, March of Dimes, and the Alaska Chapter of the Asthma and Allergy Foundation; private, tribal, public health care community; school district personnel; and parents and consumers. (Refer to Appendix X for list of attendees).

Describe Quantitative and Qualitative Methods Used to Assess Needs:

Nearly all of the existing performance measures, health status, and capacity indicators that are part of the Block Grant application were incorporated into the topic specific fact sheets. Approximately 40, 2-4 page fact sheets were developed for the Needs Assessment process using the format outlined below. An original design was used for the fact sheets to identify them as a special series of fact sheets for the MCH Title V Needs Assessment. The fact sheets have received a lot of interest from the professional public health community as well as State program managers. Several have been distributed at meetings by State program managers as a means of circulating their program data and were utilized during the past legislative session to educate legislatures. The model of the WCFH Fact Sheet was intended to be a medium to distribute data in an easily accessible and understandable format to a wide audience interested in MCH issues, to be useful in the public health community in addition to aiding stake-holders in prioritizing needs and performance measures.

Seriousness

The section **Seriousness** was comprised of five subsections: Healthy People 2010 and National Comparisons; Severity; Urgency; Disparities; and Economic Loss.

1. *Healthy People 2010 and National Data* provided comparisons for Alaska's most current data for the issue, national data, and Healthy People 2010 targets. The purpose of this section was to provide the focus group with the information to determine if the current status of the issue was serious compared to the Nation and the HP2010 goals and to give the focus group a baseline to determine status for Alaska.
2. *Severity* provided the focus group with the information to determine clinical severity of the issue. Information related to outcomes or outcomes associated with the issue was presented in this section, such as mortality rate, years of potential life lost, long term effects due to disease or chronic condition, etc.
3. *Urgency* consisted of Alaska specific data that described the current status of the issue. Where possible, trend analyses were provided to show increasing or decreasing trends, yearly percent changes. This section provided the information necessary for the focus group to determine if the issue was improving or worsening and if Alaska was moving toward the HP2010 target.
4. *Disparities* provided summarized analyses on subpopulations. Where possible and appropriate data, were analyzed and presented by race, sex, age, Medicaid status, and region. Alaska specific data was used primarily, with comparisons to national data when available. For those issues where Alaska data was not analyzed by subgroups, national data were presented.
5. *Economic Loss* contained information from literature reviews on the estimated cost of the issue at the community, State, or National level. Cost was usually the annual direct (such as medical expenses) and indirect (such as loss of work) estimates. Because of the inconsistent methodologies for health care cost estimates, this section attempted to provide the focus group with a sense of serious related to public dollars, however, it was not used to compare issues

because of the nonstandard methodology for estimating cost from study to study.

Interventions and Recommendations

This section provided a summary of current interventions and recommendations made through policy statements and reviews by professional organizations such as the American Academy of Pediatrics, American College of Obstetricians and Gynecologists, Centers for Disease Control and Prevention, and the United States Preventative Task Force Committee.

1. *Intervention Effectiveness* was a subsection that summarized the effectiveness of the current interventions from literature reviews.

Capacity

The **Capacity** section provided information on the State's ability to address the issue. This section is discussed in more detail under the description of methods used to assess State's capacity.

Comments from stakeholders were solicited at the end of each survey for all issues. These were used to help guide discussion during the focus group, but also were used to identify issues and aspects of issues that were not addressed in the WCFH Fact Sheets. (Refer to Appendix X for comments).

Describe methods used to assess the State's capacity to provide direct health care, enabling, population based and infrastructure building services:

In order to assess the State's capacity to provide direct health care, enabling, population-based and infrastructure building services, we incorporated a section called **Capacity** into the fact sheets, Needs Assessment survey, and included it in the overall discussions at the focus groups. Information for this section was provided through collaboration with the State Pediatric Specialist, State program managers and program staff that are responsible for program planning and evaluation, including oversight of program activities and funding.

The **Capacity** section provided information on the State's ability to address the issue through five areas: Propriety, Economic Feasibility, Acceptability, Resources, and Legality.

1. *Propriety* addressed whether the issue was within the scope of the overall mission of the Women's, Children's, and Family Health Section.
2. *Economic Feasibility* addressed the economic practicality of addressing the issue through associated costs and savings of program implementation and continued monitoring and analysis using programs that are already in place. We specifically tried to answer the questions: Does it make economic sense to address the problem/issue? Are there economic consequences if the problem is not addressed?
3. *Acceptability* addressed the likelihood of the target population and/or the community accepting addressing the issue, and whether the community views the issue as one needing to be addressed.
4. *Resources* presented information addressing the following questions: Are resources available to address the problem/issue? What existing State programs and services address the problem/issue?
5. *Legality* addressed whether current laws allow the problem/issue to be addressed and whether there statutory requirements, such as mandatory reporting of birth defects.

Describe all sources used:

An extensive data gathering process was undertaken in order to provide the information for the fact sheets. For every issue, the most current data available was obtained through data requests to State programs, National data systems were reviewed and queried, State and National surveys were analyzed, and extensive literature reviews of national reports and surveillance summaries, State annual reports and publications, and current peer-reviewed articles. Primary data sources included the Alaska Bureau of Vital Statistics, Alaska Pregnancy Risk Assessment Monitoring System, Alaska Trauma Registry, Alaska

Maternal and Infant Mortality Review, Alaska Youth Risk Behavior Survey, Alaska Behavioral Risk Factor Surveillance System, and the National CSHCN Survey. Other data sources included the Office of Children's Services, Medicaid Claims Database, several State registries such as Alaska Birth Defects Registry, and Alaska Cancer Registry.

An epidemiologist from the Maternal and Child Health Epidemiology Unit was present at the meetings to assist the participants in defining performance measures by providing information on available data sources and limitations of data.

Describe Strengths/Weaknesses of Current Methods and Procedures:

For this Needs Assessment, Alaska was committed to extensively involving the community, public and private health professionals, and other State and local organizations in order to identify and develop State priorities and State Performance Measures at a level that was not done in the past. The process that Alaska was dedicated to utilizing was very time consuming – limited staff and funds offered unique challenges. Limited time and funds did not allow for more than one half-day focus group meeting for each MCH population. Although the majority of the members represented statewide populations and issues, participants were from the Anchorage area where half the State's population resides. Funding constraints limited more statewide representation. An additional meeting that included stakeholders from all groups to participate in narrowing the final list of suggested priorities was the most desirable scenario, but could not happen this year due to time constraints. Including stakeholders at the level required in order for the process to be successful and useful created several opportunities for State staff to familiarize with the issues and concerns that were outside of the WCFH Section. The process created collaboration that was extremely successful in the opportunities it provided to the State. The MCH Epidemiology staff was able to gain insight on several issues that affect Alaska's MCH population, and as a result of this collaboration, there are several research and analysis projects that are now developing. The process allowed stakeholders to discuss with MCH Epidemiology staff issues surrounding data, such as

small numbers limitations, limited data resources for what they felt were critical health issues, and lack of data reporting on some populations.

The survey design allowed the flexibility to determine which subsections would be used in the analysis and the ability to determine a customized weighting scheme. Other strengths of this method and survey design were that it allowed the participants to rank the issues in a more objective way that was based on the data, as well as their professional experience and expertise.

The work that has been established this year will make future Needs Assessments easier. The process we've used puts in place a system that will be maintained on a yearly basis: the WCFH Needs Assessment Fact Sheets are planned to be updated every year, the focus groups will be convening at least once a year to discuss data updates and progress on the new State priorities and Performance Measures that they assisted in developing, and Alaska has a much better idea of the time frame needed in order to complete a Needs Assessment using this process. This approach enables stakeholders and WCFH staff to be well prepared for the next Needs Assessment, as it facilitates more efficient planning and more productive collaboration.

II. Needs Assessment

Section B.

2. Needs Assessment Partnership Building and Collaboration

The Women's, Children's, and Family Health (WCFH) Section has well-established relationships with many partners, enabling a collaborative approach that allows us to work toward meeting priority needs, assessing needs and aiding in decision/policy making. Some of our partners with whom we have collaborative working relationships include: other Sections within the Division of Public Health such as Epidemiology, Chronic Disease, Nursing, Community Health and Emergency Medical Services, Vital Statistics, and the Division Health Care Services; other Divisions within the Department of Health and Social Services such as Juvenile Justice, Behavioral Health and the Division of Senior and Disability Services; the Department of Education and Early Development; private physicians and health care providers; local health departments; private non-profits; private and federally funded hospitals; and health-related organizations such as the March of Dimes, the YWCA and American Cancer Society.

Methods of Collaboration:

Information and guidance for identifying and prioritizing the needs of the MCH population is obtained through collaboration with these partners and occurs with varying methods. This includes serving on committees such as the Prematurity campaign with the March of Dimes, and providing a leadership role in the All Alaska Pediatric Partnership. WCFH program staff also facilitates and participates in advisory groups aimed at specific MCH issues such as obesity, injury disparities, children's behavioral health, early comprehensive care systems and chronic disease. Several WCFH programs sponsor and/or participate in annual conferences that bring together specialists to address critical issues in the MCH population. Many programs, such as the Newborn Hearing-Screening and Newborn Metabolic Screening Programs, have established a program-specific steering committee where input from specialists and stakeholders is obtained. In a few of the WCFH programs, such as the Maternal and Infant Mortality Review, committees with collaborating partners are an integral part of program business.

In addition, MCH staff work closely with the Medicaid staff assist in writing regulations, policies, monitoring case management and program activities to Medicaid eligible women and children. With the reorganization of the State of Alaska DHSS, close to half of the former MCH staff and programs were transferred to the Division of Health Care Services. Although the dismantling of the MCH Section was a very difficult transition, MCH staff forged meaningful and productive relationships which enabled the MCH staff to positively influence policy decisions regarding services for Medicaid eligible women and children.

With the assistance and support of the new Division Director of Public Health, another reorganization was supported by the Commissioner of DHSS enabling some of the previous MCH programs and staff to be reorganized into the Section of Women's, Children's, and Family Health and transfer back to the Division of Public Health effective July 1, 2005. Several of these programs will continue to reside in the Medicaid offices in an effort to continue their collaborative work.

Results of Collaboration:

The results of these collaborative partnerships are a wide-variety of indicators that are useful in our needs assessment procedures. In addition, through these collaborative efforts, WCFH is well thought of and welcomed as a partner in many of the State health systems and public health activities. A few specific examples include the following:

Through the work of the State's obesity advisory group, which is made up of representatives from WCFH, Section of Epidemiology, the Alaska Native Tribal Health Consortium, and private health and nutrition providers, indicators are being developed and the need for more complete data sources has been identified. The group is working with its partners to add to current data systems, such as WIC.

The Maternal and Infant Mortality Review program sponsors an annual meeting for recommendations from committee members, which include specialists in infant/child

health, perinatologists, medical examiners, public health epidemiologists, and others specializing in children and women's health. One of the recommendations from this committee is to continue to explore for reasons in the disparities between racial groups in Alaska.

A new group has been formed within the Division of Public Health, with representatives from each of the Sections within the Division. This group's purpose is to develop policies regarding the collection, interpretation, and reporting of data. The meeting of this group provides a forum where data-related issues can be discussed and standards can be developed. An example of an issue that was discussed and successfully addressed through this group was the difference in how race is being reported from the 2000 Census and vital statistics. These differences required that a bridge be developed between the two systems.

Strengths/Weaknesses of Collaboration:

There are several positive outcomes from our collaborative efforts with other entities. Bringing together people from multiple agencies with different specializations, backgrounds and experiences gives a much more diverse and global understanding of critical MCH issues that we share common goals in addressing. These collaborations allow agencies that usually have different funding sources to keep abreast of data collection, studies, etc. of other groups so that duplication of efforts is minimized. They also allow access to databases that we would not have, or not easily have, or possibly not know they existed.

As with any advisory group or committee there are downsides to achieving objectives when working with several people. Although data sharing is definitely considered a major strength, it can become problematic when ownership issues arise. Different methodology of processing toward priority objectives and inconsistency of members participating in advisory groups or committees contributes greatly to meet objectives in timely fashions.

II. Needs Assessment

Section B

3. Assessment of Needs of the MCH Population Group

A. Pregnant Women, Mothers, Women, and Infants

As part of the statewide Five-Year Needs Assessment, WCFH identified the following issues as areas that needed to be fully assessed, analyzed, and described in order to identify and develop the State Priority Needs for Alaska.

1. Prenatal Care
2. Oral Health
3. Prenatal Tobacco Use
4. Prenatal Alcohol Use
5. Prenatal Marijuana and Cocaine Use
6. Perinatal HIV Infection
7. Maternal Illness and Complications During Pregnancy
8. Maternal Mental Health
9. Pregnancy-Associated Mortality
10. Breast and Cervical Cancer Screening
11. Unintended Pregnancy
12. Contraception: Access and Use
13. Sexually Transmitted Diseases and HIV
14. Low Birth Weight and Preterm Birth
15. Birth Defects
16. Fetal Alcohol Syndrome and Other Effects of Prenatal Alcohol Exposure
17. Newborn Hearing Screening
18. Newborn Metabolic Screening
19. Breastfeeding
20. Infant and Fetal Mortality
21. Infant Sleep Position and Co-Sleeping
22. Unintentional Infant Injury

Prenatal Care

Mothers having late or no prenatal care are more likely to have low birth weight or preterm infants and are at increased risk for pregnancy-related mortality and complications of childbirth. Early and adequate prenatal care may improve maternal and infant outcomes. In Alaska, the lack of improvement in prenatal care indicators has been recognized as a problem, particularly for Alaska Native women. The type of health care provider seen, insurance status, early recognition of pregnancy and ability to find prenatal care locally may affect the level of prenatal care coverage in a population.

Indicator	Alaska [‡]	Nation [^]	Healthy People 2010
Proportion of women receiving prenatal care in the 1 st trimester	80.1% (2003)	84.1%* (2003)	≥ 90.0%
Proportion of women receiving at least adequate prenatal care**	58.3% (2002)	74.6% (2002)	≥ 90.0%

*2003 national data for prenatal care in the first trimester are preliminary.

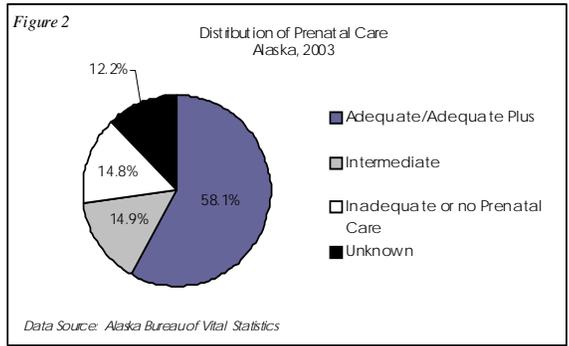
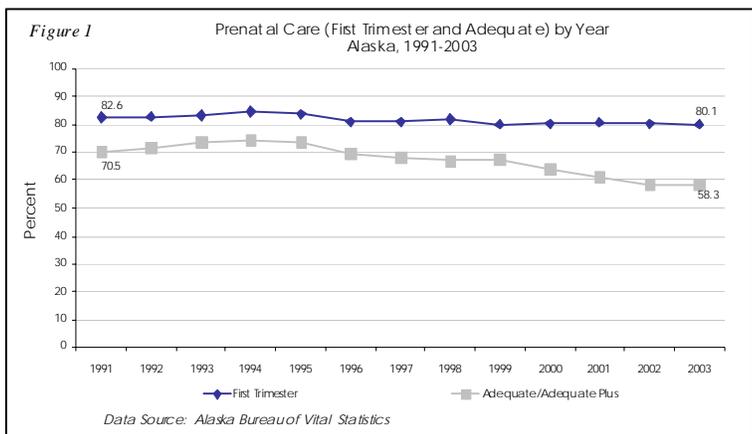
** Adequacy of Prenatal Care is derived from an algorithm making use of two types of prenatal care information obtained from the birth certificate data – when prenatal care began and the number of prenatal visits from when care began until delivery. It is referred to as the APNCU Index.

[‡] Alaska Bureau of Vital Statistics, 2002, 2003: State of Alaska, DHSS, DPH. Jan 2005.

[^] Hamilton BE, Martin JA, Sutton PD. Births: Preliminary Data for 2003. National Vital Statistics Reports: 52(10). Hyattsville, Maryland: National Center for Health Statistics. 2004.

Alaska has not made progress toward achieving the Healthy People 2010 goals for early or adequate prenatal care – both of these measures remain well below the 90% targets. Compared to women in the U.S. as a whole, prenatal care in the first trimester among Alaskan women was slightly lower and adequate prenatal care was significantly lower.

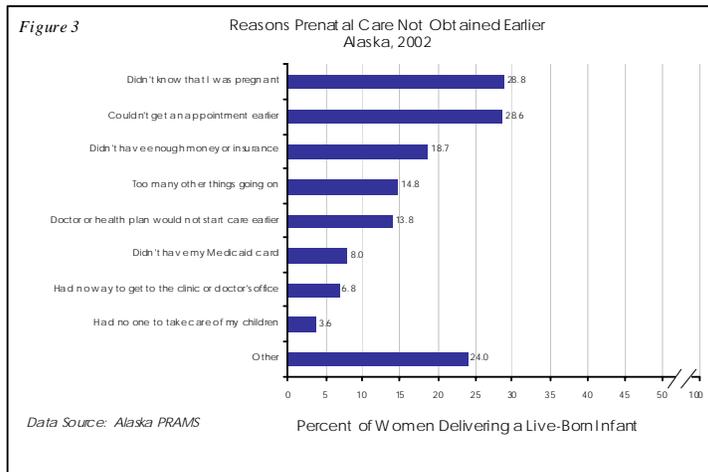
Trend analyses show the percent of Alaskan women receiving adequate prenatal care is declining and the percent of women who begin prenatal care in the first trimester has not made any improvements. (Figure 1) In 2003, nearly 1 in 3 Alaskan women that delivered an infant received less than adequate prenatal care and nearly 1 in 7 received inadequate care or no care at all. (Figure 2) This decline in the reported quality of prenatal care is being investigated by the Maternal and Child Health Epidemiology Unit and the Alaska Bureau of Vital Statistics.



Barriers to Prenatal Care

Analysis of Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) 2002 data indicated that 1 in 5 Alaskan women did not get prenatal care as early in their pregnancy as they wanted. Among these women, nearly 30% did not know they were pregnant or

were unable to get an appointment earlier. Another common reason was lack of funds or insurance. (Figure 3)



Prenatal Care Sources

Private doctors (38.5%) and hospital clinics (20.7%) were most commonly used as the primary source of prenatal care among Alaskan women. Approximately 12% each used a military facility or Alaska Native health facility. Less commonly used were health department clinics (6.2%) and midwife/birthing center (5.1%).¹

Medicaid coverage of prenatal care in Alaska has been steadily increasing over the past decade. More than 42% of women who delivered a live birth in 2002 indicated that Medicaid had paid for at least some of their prenatal care.² In 2001, private health insurance was used by 38% and one-fourth of Alaska women who delivered a live birth used personal income to help pay for their prenatal care.³

Approximately 50% of Alaskan women indicated that they used WIC services prenatally in 2002.⁴ While generally showing an increasing trend since 1991, prenatal WIC participation in Alaska appears to have leveled off since 1998 when participation reached 47.9%.⁵

Prenatal Counseling

¹ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

² Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

³ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

⁴ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

⁵ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

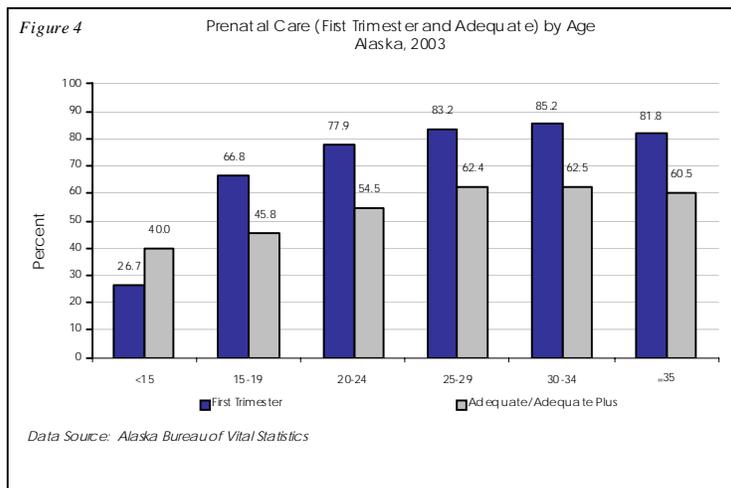
The top three areas discussed by health care workers with their prenatal patients were breastfeeding (88.5%), birth control methods to use after pregnancy (86.0%), and medicines that are safe to take during pregnancy (85.8%). Less often discussed prenatal topic areas were how using illegal drugs could affect the baby (68.9%), physical abuse to women by their partners (55.2%), and using a seat belt during pregnancy (53.0%).⁶

Prenatal Care Disparities

Disparities in prenatal care indicators for Alaska Natives may be partially explained by variation in the continuity of care for village residents. Utilization of different providers during the pregnancy may not be recorded accurately on the birth certificate.⁷

Compared to other races in 2000, Alaska Natives received early and adequate prenatal care less often. Whites had the highest prevalence of both early (84.9%) and adequate prenatal care (74.4%) – 21% and 46% higher than the reported prevalence for Alaska Natives.⁸ In 2003, reported prenatal care among Alaska Natives that was at least adequate decreased nearly 10% from 2000.⁹

Although the percentage of women receiving adequate prenatal care tends to increase with age, adequacy of prenatal care for Alaskan women of all age groups is significantly lower than the Healthy People goal of 90%. Prenatal care among young Alaskan women is significantly lower than prenatal care received among other age groups. (Figure 4)



⁶ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

⁷ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 38-45. June 2003.

⁸ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 38-45. June 2003.

⁹ Alaska Bureau of Vital Statistics, 2002, 2003: State of Alaska, DHSS, DPH. Jan 2005.

Oral Health Care among Pregnant Women and Women

Oral diseases are among the most prevalent and preventable chronic health conditions in the U.S. – impacting the oral, general, and reproductive health of women, their quality of life, and the oral health of their children.¹⁰ Periodontal diseases among pregnant women may increase the risk preterm birth (under 37 weeks gestation), low birth weight (less than 2,500 grams), and low weight for gestational age.^{11,12}

Indicator	Alaska 2002 ¹	Nation 2002 ²
Proportion of women ages ≥18 that had a dental visit for any reason within the past year	66.3%	71.5%
Proportion of women ages ≥18 that had teeth cleaned by a dentist or dental hygienist within the past year	63.1%	71.9%
Proportion of women ages ≥18 that have lost 6 or more teeth due to decay or gum disease	16.4%	18.6%
National estimates for BRFSS are the median percent among all states that collected data on these topics in 2002.		
¹ Alaska Behavioral Risk Factor Analysis Surveillance System (BRFSS), 2002 Data: State of Alaska, DHSS, DPH.		
² Behavioral Risk Factor Analysis Surveillance System (BRFSS), 2002 Data: Centers for Disease Control and Prevention (CDC), Atlanta, Georgia; U.S. DHSS, CDC.		

Alaska currently doesn't have the capacity to assess Healthy People 2010 (HP2010) objectives surrounding oral health. Information on oral health and dental access among women of childbearing age in Alaska is not readily available. The 2002 Alaska Behavioral Risk Factor Surveillance Survey (BRFSS) has an oral health component, but it is limited in its comparability to the HP2010 objectives. The Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) began collecting data on access to dental care among pregnant women with the 2004 survey, which will be available in the fall of 2005.

In 2002, more than 1 in 3 Alaskan women, ages 18 and older, reported they hadn't had their teeth cleaned by a dentist or oral hygienist within the past year; and 1 in 3 reported they hadn't had a dental visit for any reason within the past year.¹³

Oral Health Disparities

A variety of demographic, general health, behavioral, economic, and social risk factors place some women at high risk for the development of oral diseases. Social and economic

¹⁰ Women's and Children's Policy Center. Johns Hopkins University. Improving Women's Health and Perinatal Outcomes: The Impact of Oral Diseases. 2002. Available at: www.jhsph.edu/wchpc/pub/oralbrief.pdf.

¹¹ Offenbacher S, Lief S, Boggess KA, Murtha AP, Madianos PN, Champagne CM, McKaig RG, Jared HL, Mauriello SM, Auten RL Jr, Herbert WN, Beck JD. Maternal Periodontitis and Prematurity. Part I: Obstetric Outcome of Prematurity and Growth Restriction. *Annals of Periodontology*: 6(1):164-174. 2001.

¹² Jeffcoat MK, Geurs NC, Reddy MS, Cliver SP, Goldenberg RL, Hauth JC. Periodontal Infection and Preterm Birth: Results Of A Prospective Study. *Journal of the American Dental Association*: 132(7):875-880. 2001.

¹³ Alaska Behavioral Risk Factor Analysis Surveillance System (BRFSS), 2002 Data: State of Alaska, DHSS, DPH.

influences may impact women's utilization of oral health services and, ultimately, their oral health status. Women who lack information about available resources, and who report being unable to obtain services due to poverty or lack of insurance, may have difficulty accessing services and optimizing their oral health.^{14,15}

A screening of Alaska Native adults (males and females), ages 35-44 years, found that 50.8% had untreated dental decay at the time of the screening, 51.3% reported tobacco use, and 37.4% had moderate to severe periodontitis.¹⁶ Similar information is not available solely for adult Alaskan women or for other racial or ethnic groups.

Prenatal Tobacco Use

Accounting for 20-30% of all low birth weight births in the United States, prenatal cigarette smoking is the greatest known risk factor for low birth weight.^{17,18} Smoking during pregnancy is associated with infant mortality, miscarriages, preterm delivery, Sudden Infant Death Syndrome (SIDS), and respiratory problems in newborns.¹⁹ According to the 2004 Surgeon General's Report, eliminating maternal smoking may lead to a 10% reduction in all sudden infant deaths and a 12% reduction in deaths from perinatal conditions.

The effects of smokeless tobacco during pregnancy have been largely unstudied. A recent study indicates that prenatal smokeless tobacco use may be associated with increased risk of preterm delivery and pre-eclampsia.²⁰ According to the Surgeon General, smokeless tobacco use is associated with oral cancer and oral leukoplakia. Studies have shown that it also increases the risk of tooth loss and periodontal disease.

¹⁴ Gaffield ML, Gilbert BJ, Malvitz DM, Romaguera R. Oral Health during Pregnancy: An Analysis of Information Collected by the Pregnancy Risk Assessment Monitoring System. *Journal of the American Dental Association*. 132(7): 1009-1016. 2001.

¹⁵ Shiboski CH, Palacio H, Neuhaus JM, Greenblatt RM. Dental Care Access and Use Among HIV-Infected Women. *American Journal of Public Health*: 89(6):834-839. 1999.

¹⁶ Indian Health Service. *An Oral Health Survey of American Indian and Alaska Native Dental Patients: Findings, Recommendations and National Comparisons*. Rockville, MD. Indian Health Service, U.S. Department of Health and Human Services.

¹⁷ U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With understanding and improving health and objectives for improving health. 2 vols. Washington, DC: U.S. Government Printing Office. 2000.

¹⁸ U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.

¹⁹ U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.

²⁰ *Safe Motherhood: Promoting Health for Women Before, During, and After Pregnancy*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2004.

Indicator	Alaska 2002 [†]	Nation 2002 [^]	Healthy People 2010
Proportion of pregnant women who smoke	17.7%	14.0%	1%
Proportion of pregnant women who use smokeless tobacco	5.0%	0.4%	None
<small>Note: The figures presented in this table for Alaska are during the last 3 months of pregnancy and national are during the last trimester. The HP2010 goals are for the entire pregnancy.</small> <small>[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.</small> <small>[^] National Survey on Drug Use and Health, 2002. SAMHSA, Office of Applied Studies. (2003). Results from the 2002 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.</small>			

The prevalence of prenatal smoking in Alaska is significantly higher than the HP2010 goal of 1%. Approximately 1 in 6 Alaskan women reported that they smoked cigarettes during the last three months of their pregnancy – slightly higher than the U.S. as a whole.

Approximately 1 in 20 Alaskan women reported prenatal smokeless tobacco use. Compared to data from a national survey, Alaskan women were much more likely to report prenatal smokeless tobacco use than women in the U.S. as a whole.

Trend analyses of Alaska PRAMS data showed that both prenatal cigarette smoking and prenatal smokeless tobacco use have significantly declined. From 1991 to 2002, the prevalence of prenatal tobacco use has decreased nearly 24% overall and 8% for Alaska Natives. (Figure 1) From 1996-2002, there has been a decline of nearly 30% overall and 34% for Alaska Natives in prenatal smokeless tobacco use. (Figure 2)

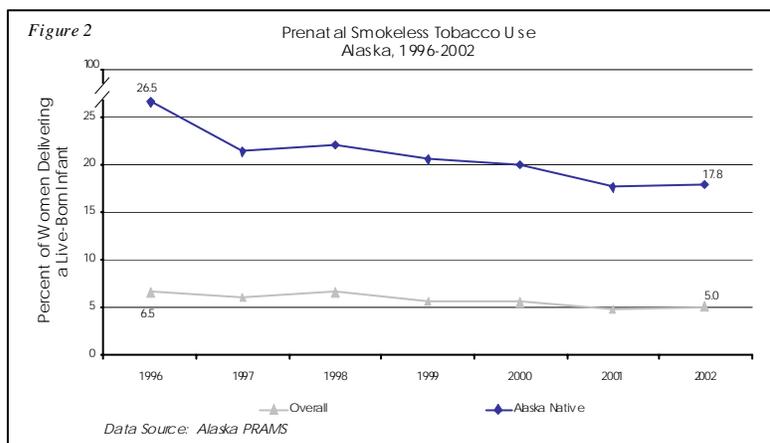
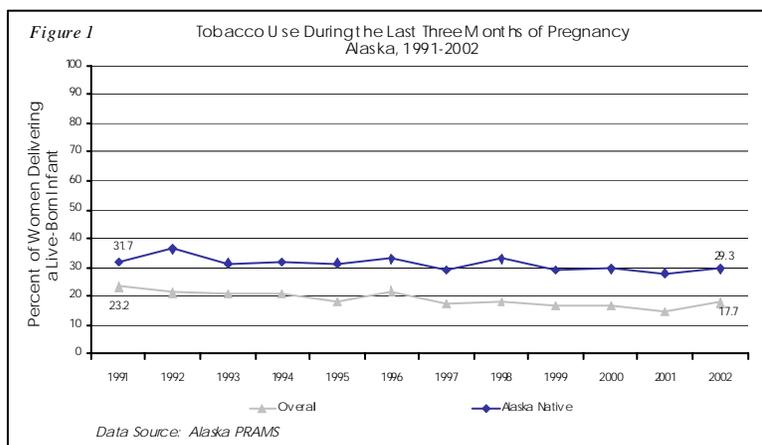
Barriers to Quitting Smoking

Women who quit smoking before or during pregnancy reduce the risk of preterm delivery and low birth weight. Women who stop smoking by the first trimester have infants with weight and body measurements comparable with those of non-smokers. Studies also suggest that smoking in the third trimester is particularly detrimental.²¹

According to Alaska PRAMS 2000 data, 80% of postpartum women who smoked had a desire to quit smoking. The majority of these women (85.4%) cited the craving for a cigarette as the number one barrier to quitting smoking. If cost were not an issue, 74.2% would use a nicotine patch, gum, nasal spray, or inhaler to aid them in quitting smoking.²²

²¹ U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.
²² Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53. 132 June 2003.

A more in-depth analysis of PRAMS 2000 data showed that a significantly higher percentage of white women perceived cost and weight gain to be barriers to quitting smoking compared with Alaska Native women. In contrast, a significantly higher percentage of Alaska Native women perceived lack of support from others to quit smoking was a barrier compared with white women.²³ Since addiction (craving) was the most cited barrier to quitting and a nicotine product was the most cited aid, dollars spent on actually providing a nicotine product to assist postpartum Alaskan women to quit may prove to be more successful than other intervention efforts.



Tobacco Use (Cigarette Smoking) Disparities

Analysis of Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) data showed that race, maternal age, education, region, and Medicaid status were significantly associated with prenatal smoking during the last three months of pregnancy.

²³ Perham-Hester KA. Postpartum Smoking Cessation Barriers And Aids For Alaskan Women. (poster presentation) Ninth Annual Maternal and Child Health Epidemiology Conference: Tempe, AZ: December 10, 2003.

Although the trend for maternal smoking among Alaska Natives has significantly declined, the prevalence has consistently remained nearly 2 times that of the overall prevalence. Alaska Native mothers had the highest prevalence of prenatal tobacco use of any race group – nearly 2 to 3 times that of white and Asian/Pacific Islander mothers. (Figure 3)

In 2001, young mothers, less than 25 years of age, were at greater risk of prenatal tobacco use than mothers 25 and older and teen mothers were twice as likely to report prenatal tobacco use as older mothers. Women with less than a high school education were 2 times as likely as women that completed high school and nearly 6 times as likely as women with at least some college to smoke tobacco prenatally. Alaskan women that had at least some prenatal care services paid by Medicaid were significantly more likely to smoke prenatally than women that did not use Medicaid to pay for prenatal care.²⁴

During 1999-2001, Alaskan women living in the Northern region were significantly more likely to smoke prenatally (41.1%) than any other region – they were 2 times as likely as women from the Southwest (20.4%) and approximately 4 times as likely than women from the Interior (11.2%) region.²⁵

Smokeless Tobacco Use Disparities

Analysis of Alaska PRAMS data showed that race, education, region, and Medicaid status were significantly associated with prenatal smokeless tobacco use.

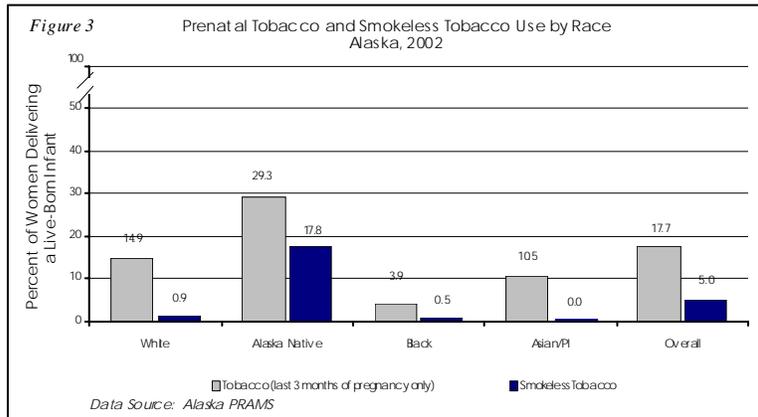
Although the trend among Alaska Natives has significantly declined from 1996-2002, it is still nearly 4 times that of the state average. (Figure 2) In 2002, Alaska Native mothers were significantly more likely to report using smokeless tobacco while they were pregnant than white mothers – the prevalence was nearly 20 times higher. (Figure 3)

In 2001, women that had not completed high school (11.9%) were nearly 2 times as likely to use smokeless tobacco prenatally as those that had completed high school (6.7%) and 40 times more likely than those with at least some college (0.3%). Smokeless tobacco use among Alaskan women that had prenatal care paid by Medicaid (9.2%) was 6.5 times higher than women that did not use Medicaid to pay for prenatal services (1.4%). Furthermore, during 1999-2001 women from the Southwest region were

²⁴ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

²⁵ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

significantly more likely to use smokeless tobacco while they were pregnant (43.9%) – nearly 8 times that of women from the Northern region (6.1%) and more than 30 times that of women from the Interior, Anchorage/Mat-Su, Southeast, and Gulf Coast regions (from 1.2% to 1.5%).²⁶



Prenatal Alcohol Use

Prenatal alcohol use is linked to fetal death, low birth weight, growth abnormalities, developmental delays in children, and fetal alcohol syndrome (FAS).^{27,28} It is also the leading preventable cause of birth defects and mental retardation. Poor birth outcomes related to prenatal alcohol use are 100% preventable.

Since women that do not know that they are pregnant may continue to drink early in pregnancy, prevalence of prenatal alcohol use during the last three months of pregnancy is most likely a conservative estimate for use during the entire pregnancy. Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) reports prenatal alcohol use for the last three months of pregnancy only. According to a recent national survey, 9.1% of pregnant women in the U.S. drank alcohol during the month they were surveyed and 3.1% reported that they binged during the month they were surveyed.²⁹

²⁶ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

²⁷ U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 vols. Washington, DC: U.S. Government Printing Office, 2000.

²⁸ Stratton K, Howe C, Battaglia F, eds. Fetal Alcohol Syndrome: Diagnosis, Epidemiology, Prevention, and Treatment. Washington, DC: National Academy Press, 1996.

²⁹ SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002. Office of Applied Studies. (2003). Results from the 2002 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Indicator	Alaska 2002 [†]	Nation 2002 [‡]	Healthy People 2010
Proportion of pregnant women who drink alcohol	4.3%	5.3%	<6%
Proportion of pregnant women who binge drink	0.6%	0.2%	<1%

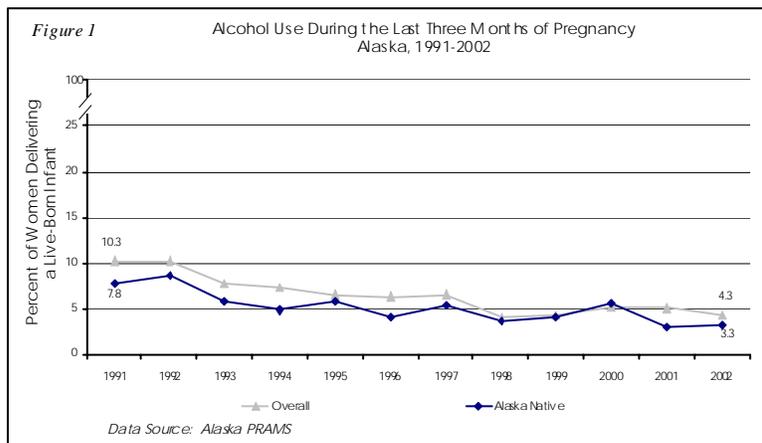
Note: The figures presented in this table for Alaska are during the last 3 months of pregnancy and national are during the last trimester. The HP2010 goals are for the entire pregnancy.

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

[‡] National Survey on Drug Use and Health, 2002. SAMHSA, Office of Applied Studies. (2003). Results from the 2002 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.

During the last three months of pregnancy, approximately 1 in 23 Alaskan women reported drinking alcohol (any amount) and less than 1% reported binge drinking. Since 1998, prenatal alcohol use has remained lower than the Healthy People 2010 target. The overall prevalence of prenatal alcohol use in Alaska has not yet met the Healthy Alaskan 2010 target of 3.5%, however, Alaska Natives achieved this goal in 2001 and 2002.

Trend analysis of Alaska PRAMS data showed that from 1991 to 2002, the prevalence of prenatal alcohol use has significantly decreased in Alaska – nearly 60% for both overall and Alaska Natives. (Figure 1)

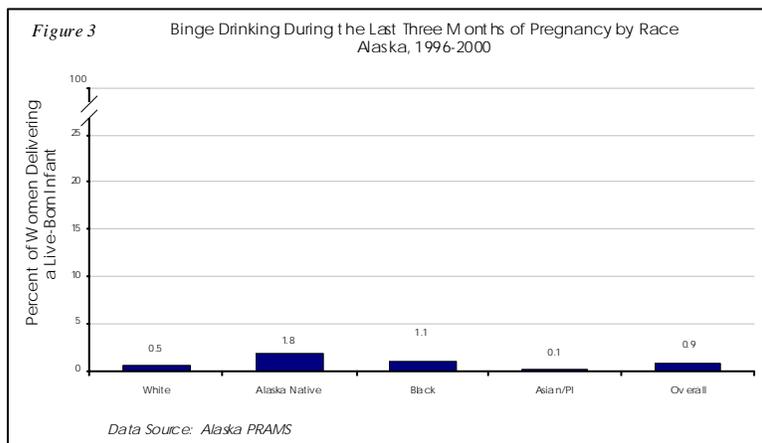
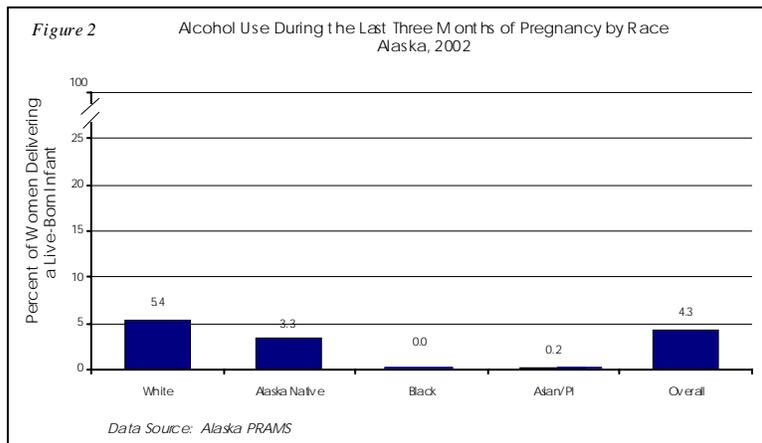


Prenatal Alcohol Use Disparities

White mothers in Alaska were significantly more likely than any other race group to drink alcohol during the last three months of pregnancy. They were more than 1.6 times as likely as Alaska Native mothers and more than 24 times that of Asian/Pacific Islander mothers. (Figure 2) Furthermore, analysis of prenatal binge drinking during 1996-2000 showed that although any prenatal drinking was highest among white women (any

drinking can be as little as “less than one drink a week”), Alaska Native women had the highest prevalence of prenatal binge drinking.³⁰ (Figure 3)

Preliminary data from the Alaska Office of FAS Knowledge Attitude Beliefs and Behaviors survey (2002) of physician's group that 35.9% of OB/GYNs responding to the survey answered yes to the following question: "Is it OK for a pregnant woman to have an occasional alcoholic beverage?" for all providers of health care to women of childbearing age is indicated in order to bring their practice in line with recommendations from the USDHHS, USPSTF, and the U.S. Surgeon General who urges women who are pregnant or who may become pregnant to abstain from alcohol consumption.³¹



³⁰ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 50-51 June 2003.

³¹ U.S. Department of Health and Human Services. U.S. Surgeon General Releases Advisory on Alcohol Use in Pregnancy: A News Release of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. February 2005.

Prenatal Marijuana and Cocaine Use

Maternal cocaine use during pregnancy is associated with adverse health effects for both the mother and the infant including intrauterine growth retardation, placental abruption, preterm delivery, congenital anomalies, and cerebral injury³² and according to research conducted by the Centers for Disease Control and Prevention, mothers who use cocaine early in pregnancy are five times as likely to have a baby with a malformation of the urinary tract as mothers who do not use cocaine.³³

Indicator	Alaska 2002 [†]	Nation 2002 [^]	Healthy People 2010
Proportion of pregnant women who use marijuana	3.5%	2.9%	0%
Proportion of pregnant women who use cocaine or crack	0.3%	0.3%	0%

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.
[^] National Survey on Drug Use and Health, 2002. SAMHSA, Office of Applied Studies. (2003). Results from the 2002 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.

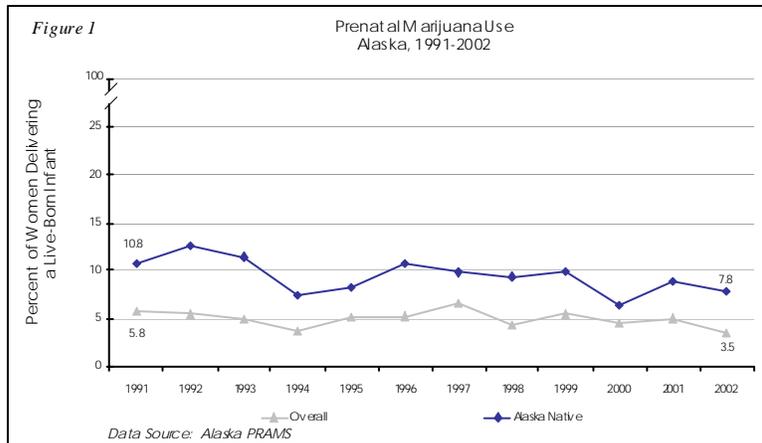
In 2002, nearly 1 in 29 Alaskan women used marijuana during their most recent pregnancy and approximately 1 in 300 used cocaine or crack. Although Alaskan women were more likely to report prenatal marijuana use than women in the United States as a whole, prenatal use of cocaine or crack among Alaskan women was the same as the prevalence among pregnant women nationally.

From 1991-2002, there has been no significant decline in the trend for overall prenatal marijuana use in Alaska. However, the overall prevalence for 2002 was the lowest reported since the Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) has collected this data. (Figure 1) From 1991 - 2000, prenatal cocaine use in Alaska has remained less than 1%.³⁴

³² Brantley M. et al. Population Based Prevalence of Perinatal Exposure to Cocaine - Georgia, 1994. October 18, 1996. MMWR 45(41):887-891. Oct 1996.

³³ Urogenital Anomalies in the Offspring of Women Using Cocaine during Early Pregnancy—Atlanta, 1968-1980. MMWR 38(31):536,541-542. 1989.

³⁴ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 48-49. June 2003.



Prenatal Marijuana and Cocaine Use Disparities

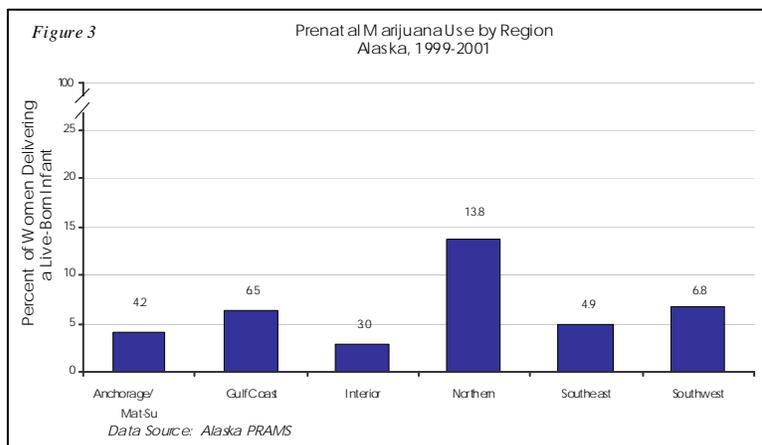
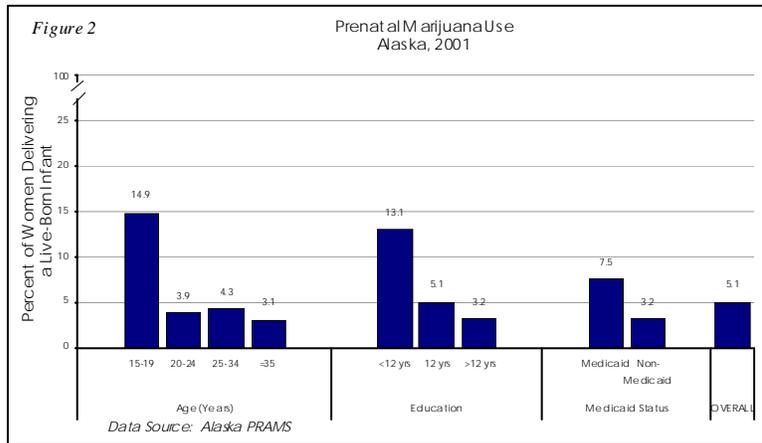
The prevalence of prenatal marijuana use among Alaska Native mothers has been significantly higher than the overall state prevalence over the last decade – more than twice that of the state average in 2002. (Figure 1) The prevalence of prenatal marijuana use was more than 3 times as high among Alaska Native mothers compared to white mothers.³⁵

Analysis of Alaska PRAMS 2001 data showed that teen mothers had a significantly increased risk of prenatal marijuana use – they reported use at a rate 3.5 to 5 times that of other age groups. Women that had not completed high school were more than 2.5 times more likely to use marijuana prenatally than those that had completed high school and 4 times more likely than those with at least some college. The prevalence of prenatal marijuana use among Alaskan women that had prenatal care paid by Medicaid was nearly 2.5 times higher than among women that did not use Medicaid to pay for prenatal care. (Figure 2) Furthermore, during 1999-2001, women from the Northern region were significantly more likely to report prenatal marijuana use – approximately 2 to 4.5 times that of other regions. The Interior region had the lowest prevalence.³⁶ (Figure 3)

Alaska PRAMS data for prenatal cocaine use was only analyzed by race-group. In 2002, Alaska Native mothers were nearly 3 times more likely to report prenatal cocaine use than white mothers (0.63% and 0.23%, respectively). Approximately 1 in 150 Alaska Native mothers reported prenatal cocaine use compared to 1 in 430 white mothers.

³⁵ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

³⁶ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).



Perinatal HIV Infection

The vast majority of AIDS cases among children in the U.S. occur through vertical transmission during pregnancy, labor and delivery, or breastfeeding. Vertical transmission accounted for 91% of all AIDS cases reported among U.S. children before 1999.³⁷

Although, the Healthy People 2010 objective for reducing perinatal HIV is developmental, perinatal HIV in Alaska has remained below the Nation.³⁸ During 1998-2002, there were no Alaskan infants identified as HIV-positive.³⁹

³⁷ Centers for Disease Control and Prevention. Status of Perinatal HIV Prevention: U.S. Declines Continue. Fact Sheet. 1999.

³⁸ HIV/AIDS Reporting System, 2003 Data in: Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2003 (Vol. 15). Atlanta: US Department of Health and Human Services, Centers for Disease Control and Prevention. 2004.

³⁹ State of Alaska Department of Health and Social Services. 2004-2006 Alaska HIV Prevention Plan. 2003.

According to the Alaska HIV Prevention Plan, the number of Alaskan women of childbearing age with HIV/AIDS is low but increasing. From 1998-2002 Alaskan women accounted for 30% of the reported HIV/AIDS cases.⁴⁰

Data from the Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) showed that 84.2% of women delivering a live-born infant in 2002 reported that a health care worker discussed blood testing for HIV during their prenatal care.⁴¹

HIV Disparities

National data indicate that race, ethnicity, and sex are significantly associated with higher rates of HIV and AIDS. In 1998, 80% of children and adult women that were infected with HIV were either African American or Hispanic.⁴² From 1999-2003 the annual number of estimated AIDS diagnoses in the U.S. increased 15% among women and 1% among men.⁴³

Although Alaska Native women only comprise 16% of the State population, they accounted for nearly 40% of all recent HIV (non-AIDS) cases among Alaskan women.⁴⁴

Maternal Illness and Complications During Pregnancy

Illnesses and health conditions related to pregnancy can result in short or long-term maternal morbidity, especially if not appropriately treated through adequate prenatal and post-delivery care. An estimated two to three women die in the U.S. every day from pregnancy complications, and over 30% of pregnant women experience some type of illness or injury during childbirth beyond what would be expected in a normal delivery.^{45,46} Most pregnancy-related complications are preventable. The most common are: ectopic pregnancy, premature labor, hemorrhage, blood clots, high blood pressure, infection, stroke, amniotic fluid in the bloodstream, diabetes, and heart disease.⁴⁷ Sexually transmitted diseases (STDs) among pregnant women are associated with increased risk of poor prenatal and birth outcomes; adverse outcomes associated with

⁴⁰ State of Alaska Department of Health and Social Services. 2004-2006 Alaska HIV Prevention Plan. 2003.

⁴¹ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS). 2002 Data: State of Alaska, DHSS, DPH.

⁴² Centers for Disease Control and Prevention. Status of Perinatal HIV Prevention: U.S. Declines Continue. Fact Sheet. 1999.

⁴³ Centers for Disease Control and Prevention. HIV/AIDS among Women. November 2004.

⁴⁴ State of Alaska Department of Health and Social Services. 2004-2006 Alaska HIV Prevention Plan. 2003.

⁴⁵ Safe Motherhood: Promoting Health for Women Before, During, and After Pregnancy. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2004.

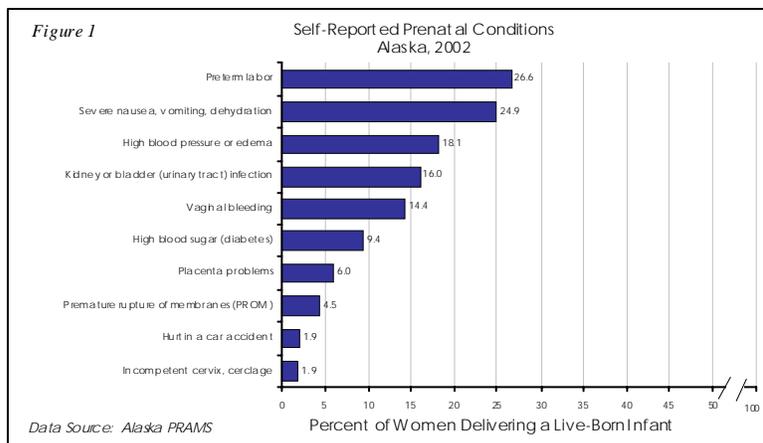
⁴⁶ Danel I, et al. "The Magnitude of Maternal Morbidity During Labor and Delivery, United States, 1993-1997". American Journal of Public Health. April 2003.

⁴⁷ Safe Motherhood: Promoting Health for Women Before, During, and After Pregnancy. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2004.

STDs during pregnancy are generally preventable through adequate prenatal care. In 2003, the rate of Chlamydia among Alaskan women was the highest in the Nation at 857.8 per 100,000 – an increase of 77.5% from 1999.⁴⁸

Maternal morbidity during pregnancy and after delivery contributes to perinatal mortality, chronic health problems for mothers and infants, increased health care expenditures and decreased quality of life. Ectopic pregnancy is an important cause of pregnancy-related illness and disability in the U.S. and is the leading cause of maternal death in the first trimester of pregnancy.⁴⁹

Approximately 34% of women who delivered a live-born infant in 2002 indicated they did not have any of the conditions listed in Figure 1. The most prevalent self-reported prenatal condition for women who delivered a live-born infant in Alaska during 2002 was preterm labor (26.6%), followed by severe nausea, vomiting, and dehydration (24.9%). (Figure 1)



Alaska PRAMS data indicated that among the top self-reported prenatal conditions among Alaskan women in 2002:

1 in 4 reported:	1 in 6 reported:	1 in 7 reported:
preterm labor	high blood pressure or edema	vaginal bleeding
severe nausea, vomiting, and dehydration	kidney or bladder infections	

⁴⁸ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases, September 2004.

⁴⁹ Centers for Disease Control and Prevention. Ectopic Pregnancy in the United States, 1990-92. MMWR. 44(3):46-48. 1995.

From 1994-2003, the rate of death to Alaskan newborns affected by maternal factors and complications during pregnancy was 59.2 per 100,000 infants – making it the second leading cause of mortality among Alaskan newborns and accounting for 13.5% of all infant deaths over the last decade.⁵⁰ Maternal factors and complications during pregnancy were: complications of labor and delivery; maternal complications of pregnancy; maternal hypertensive disorders; placenta, cord and membranes; noxious influences transmitted via placenta or breast milk; other maternal conditions that may be unrelated to the present pregnancy.

Maternal Illness Disparities

The risk of ectopic pregnancy increases with maternal age. Regardless of race group, the risk of ectopic pregnancy among women ages 35-44 is 3 times that of women ages 15-24.⁵¹ Prenatal maternal illness data from Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) have not been analyzed for disparities at this time.

Maternal Mental Health

Poor maternal mental health adversely affects families, children, and infants. There are varying degrees of depression that can occur after a pregnancy. During the postpartum period, women may experience postpartum blues, postpartum depression, or postpartum psychosis. Postpartum depression (PPD) can be disabling for a new mother and can impact her ability to adequately care for her infant. PPD affects women of all ages, economic status, racial and ethnic backgrounds. Any woman who is pregnant, had a baby within the past few months, miscarried, or recently weaned a child from breastfeeding can develop PPD.⁵² The Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) provides data for self-reported postpartum depression. This is not a clinical diagnosis of PPD and is therefore not directly comparable.

⁵⁰ Alaska Department of Health and Social Services, Division of Public Health. Alaska Bureau of Vital Statistics. Jan 2005.

⁵¹ Centers for Disease Control and Prevention. Ectopic Pregnancy in the United States, 1990-92. MMWR. 44(3):46-48. 1995.

⁵² US Department of Health and Human Services. The National Women's Health Information Center. Postpartum Depression. Jul 2002.

Proportion of who had self-reported postpartum depression	Alaska 2002 [†]	Nation 2000 [^]
Severe	4.7%	5.1%-8.9%
Low to Moderate	51.9%	48.9%-62.3%
None	43.4%	31.0%-44.6%

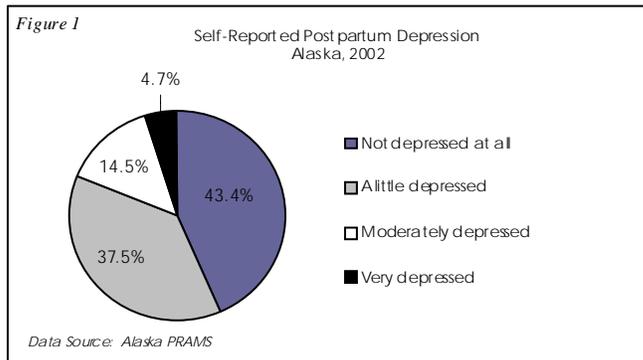
The range used for the national prevalence of self-reported postpartum depression is from seven states (Alaska, Louisiana, Maine, New York State, North Carolina, Utah, and Washington) participating in PRAMS during 2000 that collected data on this topic.

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

[^] Pregnancy Risk Assessment Monitoring System (PRAMS), 2000 Data in: Centers for Disease Control and Prevention. PRAMS Fact Sheet. PRAMS and Postpartum Depression. June 2004.

There are developmental Healthy People 2010 objectives on maternal mental health, particularly postpartum depression; however, goals have not yet been defined.

In 2002, approximately 1 in 21 Alaskan women reported they were very depressed and 1 in 7 reported they were moderately depressed. More than half reported they experienced low to moderate depression. (Figure 1) Although there is no comparable national estimate for self-reported postpartum depression, analysis of data from 7 Pregnancy Risk Assessment Monitoring (PRAMS) states for 2000 (including Alaska) reported a range of 5.1% to 8.9% of women that self-reported severe postpartum depression. During that time, Alaska had the second lowest prevalence of 5.4%.⁵³

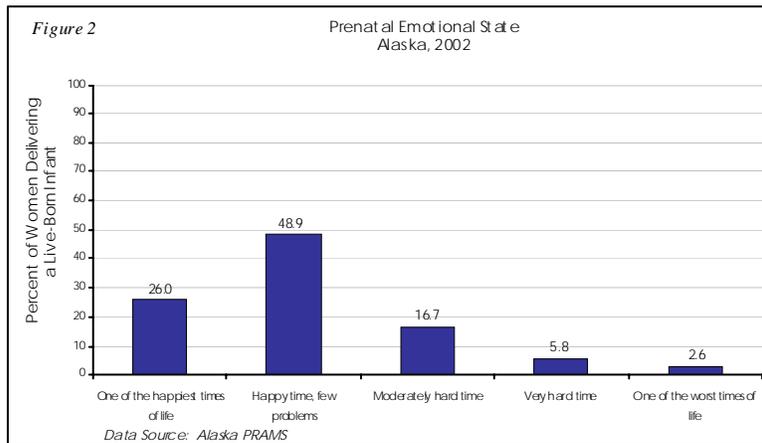


Approximately 1 in 4 Alaskan women indicated that their prenatal period was a “moderately hard time”, a “very hard time”, or “one of the worst times of my life”. (Figure 2)

Although more than half reported they had low to moderate depression, 1 in 4 Alaskan women (24.6%) indicated that a health care worker did not talk with them about postpartum blues or PPD. Alaskan women who self-reported postpartum depression

⁵³ Centers for Disease Control and Prevention. PRAMS Fact Sheet. PRAMS and Postpartum Depression. Jun 2004.

(56.%), more than 1 in 5 indicated they wanted to see a mental health professional and 1 in 8 had not seen one.⁵⁴



Mental Health Disparities

A recent study from the Centers for Disease Control and Prevention (CDC) indicated that single mothers and less affluent mothers were significantly more likely than married and affluent mothers to report a chronic, activity-limiting mental health condition.⁵⁵ Women who have been depressed during an on-going pregnancy, have a history of PPD, or who have a previous history of depression are more at risk for PPD.⁵⁶

An analysis of PRAMS data from seven states, which included Alaska, indicated that among mothers of newborns, women with fewer than 12 years of education, those who were Medicaid recipients, and those who delivered low birth weight infants were most likely to report severe depression compared to other women. In addition, women who experienced physical abuse during pregnancy and women who reported stress (emotional, partner- related, financial, or traumatic) were more likely than other women to report being severely depressed.⁵⁷

Pregnancy-Associated and Pregnancy-Related Mortality

Although pregnancy-associated mortality affects relatively few women in Alaska annually, death around the time of pregnancy has a substantial impact on families and serves as an indicator of issues that affect the health and well being of mothers and

⁵⁴ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH

⁵⁵ Lesesne CA, Visser SN, and White CP. Attention-Deficit/Hyperactivity Disorder in School-aged Children: Association with Maternal Mental Health and Use of Health Care Resources. *Pediatrics*. 111(5 part 2):1232-7. May 2003.

⁵⁶ Glassman R, Farnan L, Gharib S, and Erb J. Brigham and Women's Hospital. Depression. A guide to diagnosis and treatment. Boston (MA): Brigham and Women's Hospital; 2001.

⁵⁷ Centers for Disease Control and Prevention. PRAMS Fact Sheet. PRAMS and Postpartum Depression. Jun 2004.

pregnant women. A pregnancy-associated death is defined as death during or within one year of pregnancy. Pregnancy-related death is defined as death resulting from causes directly related to pregnancy and childbirth.

The Alaska Maternal-Infant Mortality Review (MIMR) – a committee made up of Alaska physicians, social workers, and public health providers – reviews pregnancy-associated deaths. The MIMR Committee determined that for 28% of pregnancy-associated deaths occurring during 1990-99, alcohol use was a contributing factor. Socio-economic conditions contributed to 23% and inappropriate medical care to 10% of the deaths. Between 60-77% of pregnancy-associated mortality was considered preventable.⁵⁸

The Alaska MIMR committee identified improvements in medical care and social and behavioral services that might have prevented most pregnancy-associated deaths. These include: better patient education, more aggressive tertiary care referral, improvements in medical management, mental health counseling, alcohol treatment, drug abuse treatment, social support, domestic violence shelters and safety education. Several state programs conduct specific interventions to address these issues.

Indicator	Alaska 1990-99 [†]	Nation 1991-99 [*]	Healthy People Goal
Pregnancy-related mortality ratio per 100,000 live births	7.4	11.8	3.3
<small>For national estimates of pregnancy-related mortality ratios, pregnancy-related was defined as a death that occurred during pregnancy or within 1 year of pregnancy and resulted from 1) complications of the pregnancy, 2) a chain of events that was initiated by the pregnancy, or 3) the aggravation of an unrelated condition by the physiologic effects of the pregnancy or its management.</small>			
<small>[†] Alaska Maternal-Infant Mortality Review (MIMR), 1990-1999 Data: State of Alaska, DHSS, DPH.</small>			
<small>[*] Pregnancy Mortality Surveillance System (PMSS), 1991-1999 Data in: Chang J, Elam-Evans LD, Berg CJ, et al. Pregnancy-Related Mortality Surveillance – United States, 1991-1999. MMWR 52(SS02):1-8. February 2003.</small>			

Although Alaska’s pregnancy-related mortality ratio is well below the national average (37% lower), Alaska’s pregnancy-related mortality ratio is 2.2 times the Healthy People 2010 goal. Furthermore, Alaska has one of the Nation’s highest documented pregnancy-associated mortality ratios – 58 per 100,000 live births during 1990-1999.

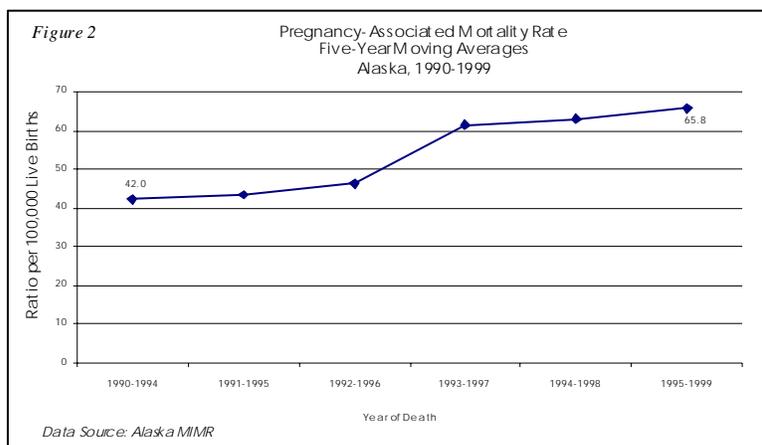
Pregnancy-Associated Mortality

Over the last decade, pregnancy-associated mortality has not decreased in Alaska. From 1990-1999, over 90% of pregnancy-associated deaths in Alaska occurred post-delivery.

⁵⁸ Alaska Maternal-Infant Mortality Review (MIMR), 1990-1999 Data: State of Alaska, DHSS, DPH.

(Figure 2) Unintentional injury was the leading manner of pregnancy-associated death in Alaska, accounting for 37% of mortality during 1990-99.

Medical causes meeting the definition of pregnancy-related death accounted for 14% of pregnancy-associated deaths while other medical causes accounted for 18%. The proportion of mortality due to homicide, suicide and substance abuse was equally distributed and together accounted for 30% of pregnancy-associated mortality during this time period.



Pregnancy-Related Mortality

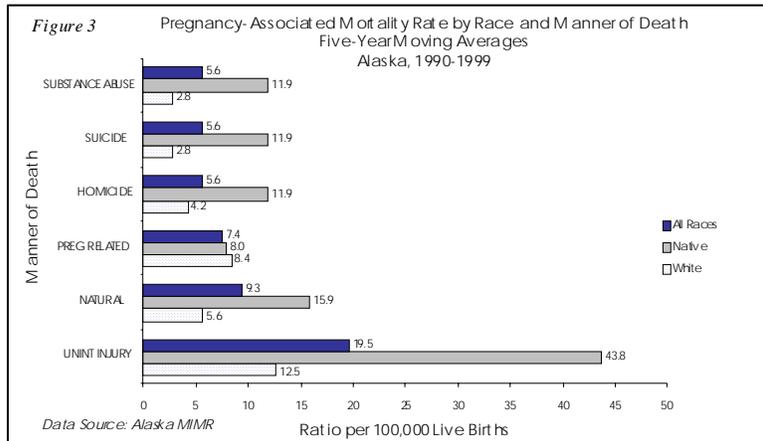
In Alaska, pregnancy-related deaths are rare – with only 8 deaths from 1990-1999. The three conditions responsible for all pregnancy-related deaths that occurred during this time period were hypertension, embolism, and hemorrhage.

Pregnancy-Associated and Pregnancy-Related Mortality Disparities

Compared to white women, Alaska Native women had a three-fold higher risk of pregnancy-associated mortality for all manners of death with the exception of pregnancy-related. (Figure 3)

According to national surveillance, states with large populations of black women have higher pregnancy-related mortality ratios. According to recent national data, blacks were 3 to 4 times more likely to die from pregnancy-related causes than whites. National data indicated that maternal age (35 years or older) and women who received no prenatal care,

were at increased risk of a pregnancy-related death.⁵⁹ Analysis of Alaska MIMR data, from 1990-1999, indicated that white women had slightly higher risk of death from a pregnancy-related cause than Alaska Natives. No black or Asian women died from pregnancy-related causes during this time period.



Breast and Cervical Cancer Screening

Breast cancer is the most commonly diagnosed cancer among women in Alaska and the United States as a whole; and it is the second leading cause of cancer mortality among women. Many deaths from breast and cervical cancers could be avoided by increasing cancer screening rates among women at risk. Studies show that early detection of breast and cervical cancers saves lives. Timely mammography screening among women aged 40 years or older could reduce breast cancer mortality by approximately 16% compared with women who are not screened. Papanicolaou (Pap) tests can find cervical cancer at an early stage when it is most curable or even prevent the disease if precancerous lesions found during the test are treated.

Based on cancer statistics for the years 1999-2001, it is estimated that 1 in 7 women will develop breast cancer at some point during their lives.⁶⁰ According to the American Cancer Society, current trends in breast cancer incidence and mortality suggest that an estimated 211,240 new cases of invasive breast cancer will be diagnosed among women, and an estimated 40,410 women will die of this disease in 2005. Furthermore, while the incidence of invasive cervical cancer has decreased significantly over the last 40 years, based on current trends in cervical cancer incidence and mortality rates, an estimated

⁵⁹ Chang J, Elam-Evans LD, Berg CJ, et al. Pregnancy-Related Mortality Surveillance – United States, 1991-1999. *MMWR* 52(SS02):1-8. February 2003.
⁶⁰ Ries LAG, Eisner MP, Kosary CL, et al. (eds). *SEER Cancer Statistics Review 1975-2001*. National Cancer Institute. Bethesda, MD. 2004. Available at: http://seer.cancer.gov/csr/1975_2001.

10,370 new cases will be diagnosed and an estimated 3,710 women will die of this disease in 2005.⁶¹

Indicator	Alaska 2002 [†]	Nation 2002 [†]	Healthy People 2010
Proportion of women ages ≥ 40 receiving a mammogram in the previous two years	72.2%	75.9% (60.3%-85.4%)	70%
Proportion of women ages ≥ 40 receiving a mammogram in their lifetime	87.5%	88.9% (75.4%-94.1%)	---
Proportion of women ages ≥ 18 with an intact cervix receiving a Pap test in the previous three years	87.4%	86.8% (72.7%-92.0%) [‡]	90%
Proportion of women ages ≥ 18 with an intact cervix receiving a Pap test in their lifetime	97.4%	95.0% (81.9%-97.6%)	97%
National estimates for mammogram and Pap test prevalence are the median percent and the range of estimates for all states participating in BRFSS during 2002 that collected data on these topics.			
*2000 data. Note that 2002 data was unavailable for this indicator for the Nation.			
[†] Alaska Behavioral Risk Factor Surveillance System (BRFSS), 2002 Data in: Balluz L, Ahluwalia IB, Wilmon Murphy W, et al. Surveillance for Certain Health Behaviors Among Selected Local Areas — United States, Behavioral Risk Factor Surveillance System, 2002. MMWR: 53(SS-05). July 2004.			
[‡] Behavioral Risk Factor Surveillance System (BRFSS), 2002 Data in: Balluz L, Ahluwalia IB, Wilmon Murphy W, et al. Surveillance for Certain Health Behaviors Among Selected Local Areas — United States, Behavioral Risk Factor Surveillance System, 2002. MMWR: 53(SS-05). July 2004.			

From 1990-2002, the proportion of Alaskan women ages 40 and older that reported receiving a mammogram in the previous two years has increased 24%; however, since 1998 the prevalence has remained relatively unchanged.⁶² In 2002, approximately 1 in 4 Alaskan women ages 40 and older reported that they had not received a mammogram in the previous two years. Alaska has achieved the Healthy People 2010 goal (HP2010) for this indicator, however, the Healthy Alaskan goal of 76%, which mirrors the Alaska Comprehensive Cancer Control Plan (CCCP), has not been achieved.

From 1990-2002, the proportion of Alaskan women ages 18 and older that reported having a Pap test in the previous three years has remained relatively unchanged.⁶³ In 2002, nearly 1 in 8 Alaskan women ages 18 and over reported they did not have a Pap test in the previous three years. Although just under the HP2010 goal in 2002, Alaska was one of four states in 2000 to achieve the HP2010 goal of increasing this indicator to at least 90%. The Healthy Alaskan goal for this indicator is 95%. In addition, Alaska has achieved the HP2010 goal for increasing the proportion of women ages 18 and older that have ever received a Pap test – one of three states to achieve this goal in 2002.

⁶¹ American Cancer Society. Cancer Facts and Figures 2005. Atlanta: American Cancer Society, 2005.

⁶² Alaska Behavioral Risk Factor Surveillance System (BRFSS) Data: State of Alaska, DHSS, DPH.

⁶³ Alaska Behavioral Risk Factor Surveillance System (BRFSS) Data: State of Alaska, DHSS, DPH.

From 1998-2000, the average annual breast cancer incidence rate among Alaskan women was 141.3 per 100,000 – slightly higher than the Nation as a whole (128.9 per 100,000 in 2000).⁶⁴ From 1997-2001, the average annual mortality rate for breast cancer among Alaskan women was 23.9 per 100,000. Breast cancer mortality rates for Alaskan women over the last two decades have been fairly stable, slightly decreasing at 0.6% annually.⁶⁵

From 1998-2000, the average annual cervical cancer incidence rate among Alaskan women was 8.7 per 100,000 – not significantly different than the Nation (9.2 per 100,000 in 2000).⁶⁶ From 1997-2001, the average annual cancer mortality rate among Alaskan women was 1.7 per 100,000 – significantly lower than the Nation for this time period (2.9 per 100,000). The trend in cervical cancer mortality among Alaskan women has significantly declined over the last two decades – with an annual average percent decline of 6.8%.⁶⁷

Disparities

Deaths from these diseases occur disproportionately among women who are uninsured or underinsured. Mammography and Pap tests are underused by women who have no source or no regular source of healthcare, women without health insurance, and women who immigrated to the United States within the last 10 years.⁶⁸

Compared to non-Natives, Alaska Native women reported a higher prevalence of having a Pap test within the last three years and reported a higher prevalence of having a mammogram within the past two years. (Figure 1)

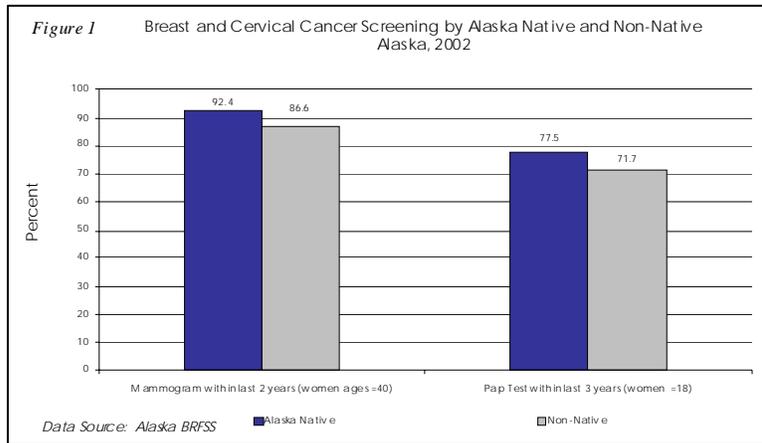
⁶⁴ Alaska State Cancer Registry and the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), CDC. January 2003 data submission.

⁶⁵ National Vital Statistics System (NVSS) 1977-2001 Data in: National Cancer Institute (NCI) using Surveillance, Epidemiology, and End Results (SEER) Program. Available at <http://www.statecancerprofiles.cancer.gov>.

⁶⁶ Alaska State Cancer Registry and the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), CDC. January 2003 data submission.

⁶⁷ National Vital Statistics System (NVSS) 1977-2001 Data in: National Cancer Institute (NCI) using Surveillance, Epidemiology, and End Results (SEER) Program. Available at <http://www.statecancerprofiles.cancer.gov>.

⁶⁸ Centers for Disease Control and Prevention. The National Breast and Cervical Cancer Early Detection Program: Saving Lives through Screening. Fact Sheet. 2004-2005.



The Gulf Coast region had the lowest percentage of women ages 40 and older that reported having a mammogram in the last two years (63%) – this was the only region to not achieve the HP2010 goal. All other regions were similar, ranging from 71% in Anchorage and vicinity to 78.1% in Southeast.⁶⁹

As age increases, cervical cancer incidence rates increase. During 1997-2001, the cervical cancer incidence rate for Alaskan women ages 55-59 was 2.3 times as high as women ages 25-29, and 1.5 times as high as women ages 40-44.⁷⁰

Unintended Pregnancy

Women with unintended pregnancies are more likely to find out that they are pregnant later than women with intentional pregnancies – making intendedness a factor in the newborns’ birth outcome.⁷¹ Lack of prenatal care, inadequate birth-spacing, giving birth earlier or later than the prime childbearing years, inadequate folic acid intake early in the pregnancy, drinking, and tobacco use can affect the health of the mother and her newborn infant. Since an unintended pregnancy could impact a woman’s choice to adopt healthy prenatal behaviors, the risk of experiencing a poor birth outcome may be greater for women that choose to continue with the pregnancy. In 2003, there were 178 abortions for every 1,000 births in Alaska – nearly 1,800 abortions to women between the ages of 15 and 44 years.⁷²

⁶⁹ Alaska Behavioral Risk Factor Surveillance System (BRFSS) Data: State of Alaska, DHSS, DPH.

⁷⁰ Alaska Cancer Registry, 1997-2001 Data: State of Alaska, DHSS, DPH.

⁷¹ Kost K, Landry DJ, Darroch JE. Predicting Maternal Behaviors During Pregnancy: Does Intention Status Matter? Family Planning Perspectives 30(2): 79-88. 1998.

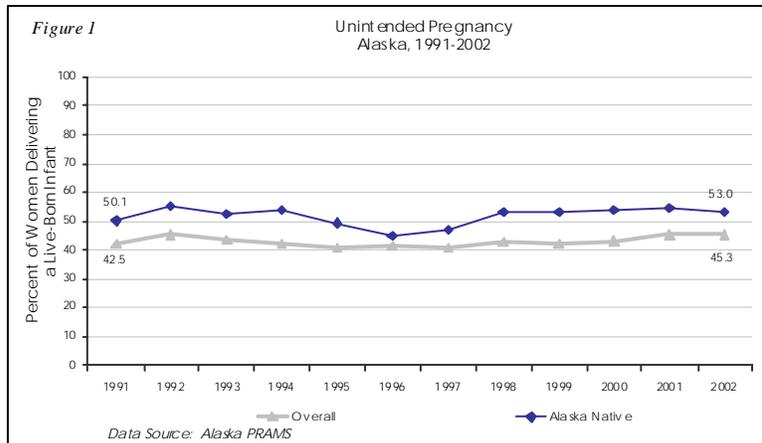
⁷² Age Specific Abortion Rates for Alaska 2003. Alaska Department Health & Social Services, Alaska Bureau of Vital Statistics. Available at: http://hss.state.ak.us/dph/bvs/Abortion_statistics/Abortion_Rates/body.html. February 2005.

A recent study estimated that 32,230 Alaskan women were in need of publicly funded family planning services. These are women who were at risk of an unintended pregnancy, between the ages of 20-44, whose income was 250% below the Federal Poverty Level, and all women less than 20 years of age that were at risk of an unintended pregnancy. Just over 75% received contraceptive services and supplies at publicly funded family planning clinics in 2001.⁷³

Pregnancy is considered to be unintended when the woman did not want to be pregnant (unwanted) or desired a later pregnancy (mistimed). For the information presented here, unintended pregnancies are limited to those that result in a live-born infant.

Indicator	Alaska 2002 [†]	Nation 1995 [‡]	Healthy People 2010
Proportion of unintended pregnancies	45.3%	31.0%	≤ 30.0% [*]
<p>[*]The HP2010 goal is to reduce the proportion of all unintended pregnancies. Alaska and National estimates are limited to those pregnancies resulting in a livebirth.</p> <p>Unintended pregnancy data from the recent National Survey of Family Growth are not yet available. Current data for unintended pregnancy among all pregnancies will be available in that survey.</p> <p>[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH</p> <p>[‡] National Survey of Family Growth, 1995 in: Kost K, Landry DJ, Darroch JE. Predicting Maternal Behaviors During Pregnancy: Does Intention Status Matter? <i>Family Planning Perspectives</i> 30(2): 79-88. 1998.</p>			

From 1991-2002, unintended pregnancies have not changed significantly in Alaska. The overall prevalence increased approximately 7% during this time. (Figure 1) In 2002, unintended pregnancy in Alaska was 1.5 times higher than both the Nation as a whole and the Healthy People 2010 target. The estimates for Alaska and the Nation are for only those pregnancies that resulted in a live-birth, therefore, they are conservative estimates since they do not include women whose pregnancy resulted in fetal death, spontaneous abortion, or termination.



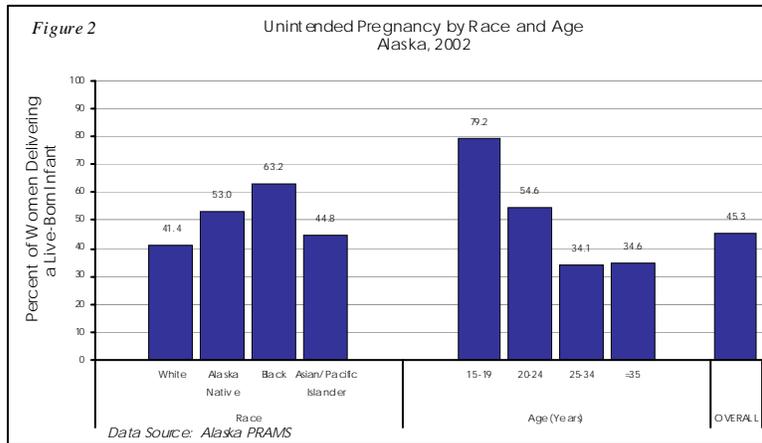
Unintended Pregnancy Disparities

Analysis of Alaska PRAMS data indicated that race, maternal age, education, region, and Medicaid status were associated with unintended pregnancy.

Over the last decade, the prevalence of unintended pregnancy among Alaska Natives was consistently higher than the overall prevalence. (Figure 1) White mothers had the lowest prevalence of unintended pregnancy and were significantly less likely to have an unintended pregnancy when compared to Alaska Native and black mothers. (Figure 2)

The consequences of unintended pregnancy among teenagers are well documented. They are less likely to get or stay married, less likely to complete high school or college, and more likely to require public assistance and to live in poverty than their peers who are not mothers. Infants born to teenage mothers are more likely to suffer poor birth outcomes such as low birth weight, neonatal death, and sudden infant death syndrome.⁷⁴ In 2002, Alaskan teens, ages 15-19, had the highest prevalence of unintended pregnancy compared to all other age groups. (Figure 2)

⁷⁴ The Alan Guttmacher Institute. Sex and America's Teenagers. New York, NY: The Institute. 1994.



Analysis of Alaska PRAMS 2001 data showed that Alaskan women with less than a high school education were 1.4 times more likely to have an unintended pregnancy than women that completed high school and 2 times as likely than women with at least some college education to have an unintended pregnancy. Alaskan women that had prenatal care paid for by Medicaid were 1.6 times more likely to have an unintended pregnancy than those who were not served by Medicaid. Furthermore, during 1999-2001, women living in the Northern (54.0%) and Southwest (53.1%) regions of Alaska had a significantly higher prevalence of unintended pregnancy than women from all other regions.⁷⁵

Contraception: Access and Use

According to a national study, a woman spends three-fourths of her reproductive life trying not to become pregnant.⁷⁶ Although 9 in 10 women who are at risk of an unintended pregnancy use a method of contraception, over half of all unintended pregnancies in the U.S. occur to women who were using contraceptives during the month they become pregnant.⁷⁷ Inadequate access to contraception and improper or inconsistent use of contraception can have serious consequences. Adverse outcomes may include unintended pregnancy, abortion, and greater risk of sexually transmitted diseases. More than one-fourth of all live births in Alaska are conceived despite the use of birth control.⁷⁸ The majority of unintended pregnancies among contraceptive users result from inconsistent or incorrect use.⁷⁹

⁷⁵ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep)
⁷⁶ Forrest JD, Samara R. Impact of Publicly Funded Contraceptive Services On Unintended Pregnancies and Implications for Medicaid Expenditures. Family Planning Perspectives, 28(5):188-195. 1996.
⁷⁷ The Alan Guttmacher Institute. Contraception Counts: Alaska. New York, NY: The Institute. 2004.
⁷⁸ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.
⁷⁹ The Alan Guttmacher Institute. Contraceptive Use. New York, NY: The Institute. 2004.

In the U.S., a large proportion of women, often poor, low-income, or teenage, rely on subsidized services for their family planning care. Many rely on publicly funded family planning clinics for free or low-cost contraceptives. According to the 2001 and 2002 Current Population Survey, 10% of Alaskan women between the ages of 15-44 have incomes below the federal poverty level and 19% do not have private health insurance or Medicaid. In 2001, approximately half of the population of Alaskan women ages 15-44 were estimated to be in need of contraceptive services and supplies – of these, 45% were in need of publicly supported contraceptive services.⁸⁰ A recent analysis of the 2002 Behavioral Risk Factor Surveillance System (BRFSS) estimated that of women at risk of pregnancy and not using birth control in the U.S., only half wanted a pregnancy. Among the reasons for not using birth control, nearly 1 in 5 did not care whether pregnancy occurred and 1 in 77 could not pay for birth control.⁸¹

Increasing access to emergency contraception (EC) is a HP2010 objective. Alaska is currently 1 of 6 states that allow pharmacists to dispense EC without a prescription. In Alaska pharmacists may dispense any prescription drug, including EC, under collaborative practice agreement.

Although current data is not available for Alaska, data from 1998 suggests that when comparing women at risk of an unintended pregnancy, Alaskan women are less likely to use contraception compared to women in the U.S. as a whole.

Indicator	Alaska	National	Healthy People 2010
Proportion of females experiencing pregnancy despite the use of a reversible contraceptive	25.6% (2002) [†]	13.0% (1995) [^]	<7%
Proportion of females at risk of an unintended pregnancy who use contraception	70% (1998) [‡]	89.3% (2002) ^{^^}	100%
[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH. [^] National Survey of Family Growth, 1995 in: Kost K, Landry DJ, Darroch JE. Predicting Maternal Behaviors During Pregnancy: Does Intention Status Matter? Family Planning Perspectives 30(2): 79-88. 1998. [‡] Alaska Behavioral Risk Factor Surveillance System (BRFSS) 1998 Data: State of Alaska, DHSS, DPH. ^{^^} National Survey of Family Growth, 2002 Data in: Mosher WD, Martinez GM, Chandra A., et al. Use of Contraception and Use of Family Planning Services in the United States, 1982-2002. Advance Data from Vital and Health Statistics: no 350. Hyattsville, MD: National Center for Health Statistics. 2004.			

⁸⁰ The Alan Guttmacher Institute. Contraception Counts: Alaska. New York, NY: The Institute. 2004.

⁸¹ Tsai J, Floyd RL. Alcohol Consumption among Women Who are Pregnant or Who Might become Pregnant – United States, 2002. MMWR: 53(50):1178-1181. December 2004.

Alaska PRAMS 2002 data indicated that among Alaskan women delivering a live-born infant, 1 in 4 were using some form of birth control when they became pregnant and 8 in 10 (80.2%) were using birth control when surveyed at three months postpartum; 86.0% of mothers reported that a health care worker talked to them about postpartum birth control use during their prenatal care. In Alaska, the prevalence of pregnancy despite the use of a reversible contraceptive is nearly 4 times higher than the Healthy People 2010 (HP2010) goal. The estimate for Alaska is only for those pregnancies that resulted in a live-birth, therefore, it is a conservative estimate since it does not include women whose pregnancy resulted in fetal death, spontaneous abortion, or termination.

Contraception Disparities

According to the 2002 National Survey of Family Growth, age, education, race, and marital status were significantly associated with contraceptive use among women of childbearing age.⁸² Alaska PRAMS data indicated that race, age, and Medicaid status were significantly associated with having a live birth despite use of birth control.

In Alaska, black mothers were most at risk of having a live birth despite use of birth control. Nearly half (47.4%) of black women that delivered a live-born infant in 2001 were using some form of birth control when they got pregnant – twice the overall rate for the state (26.7%).⁸³

Younger mothers were significantly more likely to have a live birth despite use of birth control. In 2002, Alaskan teenagers (15-19 years) and women in their early twenties (20-24 years) had a higher prevalence than all other age groups of having a live birth despite use of birth control. (Figure 2) Teen mothers were 70% more likely than mothers 25 years or older to have a live birth despite use of birth control. Nationally, teenagers are less likely than older women to practice contraception without interruption over the course of a year, and more likely to practice contraception sporadically or not at all.⁸⁴

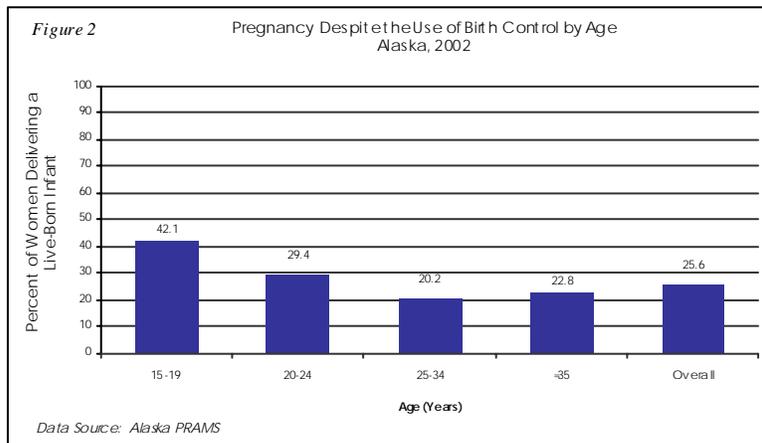
Alaskan women whose prenatal care was at least partially paid for by Medicaid were significantly more likely to have a live birth despite use of birth control compared to

⁸² Mosher WD, Martinez GM, Chandra A, Abma JC, Willson SJ. Use of contraception and use of family planning services in the United States, 1982–2002. Advance data from vital and health statistics: no 350. Hyattsville, Maryland: National Center for Health Statistics. 2004.

⁸³ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

⁸⁴ The Alan Guttmacher Institute. Teen Sex and Pregnancy. New York, NY: The Institute. 1999.

women who did not use Medicaid as payment source for their prenatal care, 33.1% and 22.3%, respectively.⁸⁵



Sexually Transmitted Diseases and HIV

The Centers for Disease Control and Prevention estimate that 18.9 million new sexually transmitted diseases (STDs) occur each year in the United States and that more than 65 million people are living with an incurable STD.⁸⁶ Chlamydia and gonorrhea were the most frequently reported infectious diseases in 2003.⁸⁷ STDs, mainly untreated chlamydia and gonorrhea, are the main preventable cause of pelvic inflammatory disease (PID). PID can lead to serious consequences including infertility, pelvic abscess and chronic pelvic pain.^{88,89} Pelvic inflammatory disease (PID) also increases the risk of ectopic pregnancy. Among women with PID, 9% will have an ectopic pregnancy due to tubal scarring.

Chlamydia is the most frequently reported bacterial STD in the Nation.⁹⁰ More than 50% of all preventable infertility among women is a result of infection with chlamydia and three-quarters of all women infected have no symptoms. Infected women are up to 5 times more likely to become infected with HIV, if exposed.⁹¹

⁸⁵ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep)

⁸⁶ Healthy People 2010. U.S. Department of Health and Human Services. Progress Review: Sexually Transmitted Diseases. July 2004.

⁸⁷ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

⁸⁸ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

⁸⁹ State of Alaska, DHSS, DPH, Section of Epidemiology. Pelvic Inflammatory Disease (PID): Diagnostic Suspicion and Early Treatment Lessen Complications. Bulletin 7(3), October 2003.

⁹⁰ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

⁹¹ Centers for Disease Control and Prevention. Chlamydia Fact Sheet. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. May 2004.

Some types of human papilloma virus (HPV), which can be transmitted through sexual intercourse, can cause cervical cancer. Other cancers caused by STDs include liver cancer, T-cell leukemia, Kaposi's sarcoma, and body cavity lymphoma.⁹²

Women and infants disproportionately bear the long-term consequences of STDs.^{93,94} Infection among women can have severe general and reproductive health consequences. In addition, many STDs can be passed from mother to infant during childbirth, resulting in potentially fatal neonatal infections and other health problems.⁹⁵ A pregnant woman with a sexually transmitted disease has an increased risk of preterm labor, premature rupture of membranes, and uterine infection after delivery.⁹⁶ Chlamydia is a leading cause of early infant pneumonia and conjunctivitis in newborns.⁹⁷ Other poor perinatal outcomes may include stillbirth, low birth weight, neonatal sepsis, neurological damage, blindness, deafness, acute hepatitis, meningitis, chronic liver disease, and cirrhosis.

Indicator	Alaska 2003 [†]	Nation 2003 [^]	Healthy People 2010
Incidence of gonorrhea among women rate per 100,000	109.1	118.8	19
Proportion chlamydia infections among females ages 15-24 attending family planning clinics	6.0%	6.4%	3.0%
Proportion chlamydia infections among females ages 15-24 attending STD clinics	7.5%	14.1%	3.0%
Sustained domestic transmission of primary and secondary syphilis among women rate per 100,000	0.0	0.8	0.2
Congenital Syphilis per 100,000 live births	0.0	10.3	1.0
[†] Alaska Sexually Transmitted Disease Surveillance, 2003 Data in: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.			
[^] Sexually Transmitted Disease Surveillance, 2003 Data in: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.			

The rate of reported gonorrhea cases among Alaska women more than doubled from 1999 to 2003.⁹⁸ Although the rate for gonorrhea in Alaskan women is slightly lower than the national rate, it is 5.7 times the Healthy People 2010 (HP2010) goal.

⁹² Institute of Medicine. The Hidden Epidemic: Confronting Sexually Transmitted Diseases. National Academy Press, Washington DC. 1997.
⁹³ Ebrahim SA, McKenna MT, Marks JS. Sexual behavior: Related adverse health burden in the United States. Sex Trans Infect 2005; 81: 38-40.
⁹⁴ Institute of Medicine. The Hidden Epidemic: Confronting Sexually Transmitted Diseases. National Academy Press, Washington DC. 1997.
⁹⁵ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.
⁹⁶ Centers for Disease Control and Prevention. STDs and Pregnancy Fact Sheet. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. May 2004.
⁹⁷ Centers for Disease Control and Prevention. Chlamydia Fact Sheet. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. May 2004.
⁹⁸ Alaska Sexually Transmitted Disease Surveillance, 2003 Data in: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

Alaska met the HP2010 goal for transmission of primary and secondary syphilis among women and the incidence of congenital syphilis among infants.

From 1999 to 2003, the rate for reported cases of chlamydia among Alaska women increased by more than 75%.⁹⁹ Part of this increase may be attributed to the expansion of chlamydia screening activities.¹⁰⁰ Alaska's reported chlamydia rate for women in 2003 was the highest in the Nation at 858 per 100,000 – 1.8 times that of the U.S. as a whole; the proportion of chlamydia infections among females ages 15 to 24 years attending family planning and STD clinics are 2 and 2.5 times the HP2010 goal, respectively.

STD and HIV Disparities

National surveillance data indicated that sex, age, and race and were associated with higher incidence of STDs. In 2000, approximately half (48%) of new STD cases in the U.S. were among people ages 15-24 years. Women ages 15-19 and 20-24 were significantly more likely to be infected with STDs than other age groups. Women were 3 times as likely to have chlamydia, and more than 2 times as likely to have gonorrhea compared to men. Furthermore, the average age for a woman infected with chlamydia was lower than the average age for a man.¹⁰¹

Chlamydial infection in Alaska was significantly higher among Alaska Natives – with a reported rate of 1,196 per 100,000, accounting for 46% of chlamydia cases while comprising only 18% of the population.¹⁰²

Like the Nation, the trend of new HIV infection among Alaskan women is increasing faster than among men.¹⁰³

Low Birth Weight and Preterm Births

Compared to infants of normal weight, low birth weight (LBW; less than 2,500 grams) and very low birth weight (VLBW; less than 1,500 grams) infants are at increased risk of

⁹⁹ Alaska Sexually Transmitted Disease Surveillance, 2003 Data in: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

¹⁰⁰ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

¹⁰¹ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

¹⁰² State of Alaska, DHSS, DPH, Section of Epidemiology. Pelvic Inflammatory Disease (PID): Diagnostic Suspicion and Early Treatment Lessen Complications. Bulletin 7(3), October 2003.

¹⁰³ State of Alaska, DHSS, DPH, Section of Epidemiology. HIV Prevention Plan 2002-2004.

impaired development, such as delayed motor and social development.^{104,105} Studies have shown that children who were born at low birth weights were more likely to have learning disabilities and be adversely affected in their performance at school than children who were born at normal birth weight. For infants born at very low birth weights the risk of dying in the first year of life is 100 times that of normal birth weight infants and the risk for moderately low birth weight (1,500–2,499 grams) infants is more than five times higher.¹⁰⁶ Low birth weight, especially very low birth weight, infants that survive are more likely to suffer from long-term disabilities, such as cerebral palsy, blindness, or other chronic conditions.¹⁰⁷

The majority of low and very low birth weight infants are born preterm (less than 37 weeks gestation). Nationally, preterm birth is the leading cause of neonatal deaths not associated with birth defects. Studies have shown that the occurrence of LBW could be reduced by an estimated 20% if all pregnant women were non-smokers.^{108,109}

Indicator	Alaska 2003 [†]	Nation 2003 [^]	Healthy People 2010
Proportion of low birth weight births	5.9%	7.9%	5.0%
Proportion of very low birth weight births	0.9%	1.4%	0.9%
Proportion of preterm births	11.0%	12.3%	7.6%
National data for 2003 is preliminary.			
[†] Alaska Bureau of Vital Statistics, 2002, 2003: State of Alaska, DHSS, DPH. Jan 2005.			
[^] Hamilton BE, Martin JA, Sutton PD. Births: Preliminary Data for 2003. National Vital Statistics Reports; 53(9). Hyattsville, Maryland: National Center for Health Statistics. 2004.			

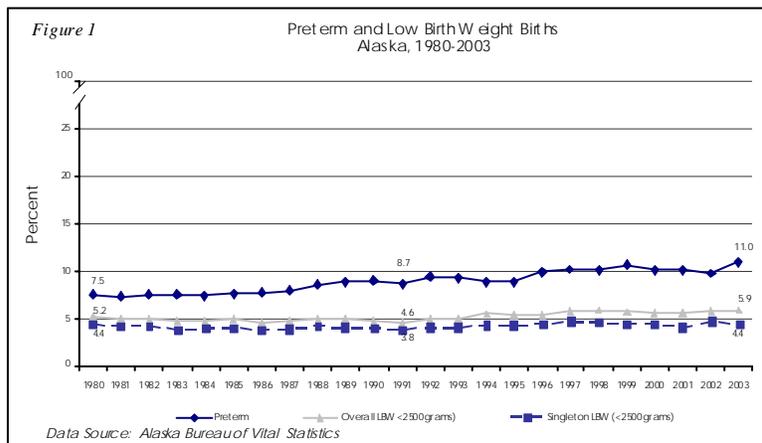
In Alaska, 1 in 17 live births was LBW, nearly 1 in 111 was VLBW, and 1 in 9 live births was preterm. Nationally, rates of LBW and VLBW were 1.3 and 1.6 times higher compared to Alaska and preliminary national data showed that Alaska ranked number one for LBW. Alaska has made significant progress toward achieving the Healthy People 2010 (HP2010) goals. Alaska achieved the HP2010 goal of 0.9% for VLBW in 2002 and 2003. In addition, LBW and VLBW among singleton births during 2003 met the HP2010 goals, with rates of 4.4% and 0.7%, respectively.

¹⁰⁴ Hack M, Klein NK, Taylor HG. Long-Term Developmental Outcomes of Low Birth Weight Infants. *Low Birth Weight. The Future of Children*: 5(1):19-34. Los Altos, CA: Center for the Future of Children. The David and Lucile Packard Foundation. 1995.
¹⁰⁵ Hediger M L, Overpeck, MD, Ruan WJ, Troendle, JF. Birthweight and Gestational Age Effects on Motor and Social Development. *Pediatric and Prenatal Epidemiology*: 16:33-46. 2002.
¹⁰⁶ Mathews TJ, Menacker F, MacDorman MF. Infant mortality statistics from the 2001 period linked birth/infant death data set. *National Vital Statistics Reports*: 52(2). Hyattsville, Maryland: National Center for Health Statistics. 2003.
¹⁰⁷ Hack M, Klein NK, Taylor HG. Long-Term Developmental Outcomes of Low Birth Weight Infants. *Low Birth Weight. The Future of Children*: 5(1):19-34. Los Altos, CA: Center for the Future of Children. The David and Lucile Packard Foundation. 1995.
¹⁰⁸ Alameda County Low Birth Weight Study Group. Cigarette Smoking and the Risk of Low Birth Weight: A Comparison in Black and White Women. *Epidemiology* 1990;1(3):201-5.
¹⁰⁹ Cnattingius S, Forman MR, Berendes HW, Graubard BI, Isotalo L. Effect of Age, Parity, and Smoking on Pregnancy Outcome: A Population-Based Study. *American Journal of Obstetrics and Gynecology* 1993; 168(1 Pt 1):16-21.

Preterm birth in Alaska, although slightly lower than the Nation as a whole, was nearly 1.5 times the HP2010 goal.

In Alaska during 1994-2003, the average mortality rate due to short gestation/low birth weight was 45.6 per 100,000 infants.¹¹⁰

Trend analyses of Alaska Vital Statistics data showed significant increases in preterm, LBW, and VLBW birth. From 1980-2003, the overall percentage of infants born preterm in Alaska increased nearly 50% – with 2003 a record high for the State. (Figure 1) From 1991-2003 there was a significant increase in the percentage of overall and singleton LBW and VLBW in Alaska. Remaining relatively constant during the 1980s, LBW increased 26.9% overall and 16.4% for singleton births from 1991 to 2003. (Figure 1)



Preterm and Low Birth Weight Disparities

Risk factors associated with preterm birth include: multiple birth; previous preterm delivery; stress; infection; vaginal bleeding; smoking; illicit drugs; low prepregnancy underweight; and maternal age extremes. Women that are less than 17 or over 35 years of age are at increased risk of premature birth.¹¹¹

Compared to singleton births in 2002, multiple births were about 7 times more likely to be born preterm.¹¹²

¹¹⁰ Alaska Bureau of Vital Statistics, 2002, 2003: State of Alaska, DHSS, DPH. Jan 2005.

¹¹¹ Assessment of Risk Factors for Preterm Birth. ACOG Practice Bulletin No. 31. American College of Obstetricians and Gynecologists. Obstet Gynecol: 98:709-16. 2001.

¹¹² National Center for Health Statistics, Final Natality Data. 2002. Retrieved February 2005, from www.marchofdimes.com/peristats

Over the last decade, the percentage of preterm infants born to white mothers has consistently been lower than any other race. However, it is the only race-specific rate to increase significantly (37% from 1990 - 2003). From 1980 to 2003, the preterm birth disparity between Alaska Native and white mothers has significantly decreased. Unfortunately, this was due to the significant increase of preterm birth among white mothers and not a decline among Alaska Native mothers. Blacks had higher rates of preterm birth than any other race over the last decade. Infants born to black mothers in 2003 were 1.6 times more likely to be born preterm than whites. This disparity has not changed over the last two decades. (Figure 2)

Accounting for 20-30% of all LBW births in the United States, prenatal cigarette smoking is the greatest known risk factor for low birth weight births.^{113,114} Other risk factors associated with LBW include: multiple birth; preterm delivery; poor nutrition; maternal age extremes; and short inter-pregnancy interval.¹¹⁵ Multiple birth infants are significantly more likely to be born preterm and of low birth weight than singletons.¹¹⁶ As maternal age increases, multiple births are significantly more likely.

In Alaska, the percentage of multiple births stayed relatively constant through the 1980s, accounting for approximately 2% of all births. Over the last decade, the percentage increased significantly – from 2.3% of all births in 1990 to 3.1% in 2003, accounting for one-fourth of all LBW for that year. In 2003, more than half of all multiple births in Alaska were LBW, of these, nearly 12% were VLBW. In 2003, LBW was significantly more likely among multiple births compared to singleton births – the percentage was 12 times that of singleton births.¹¹⁷

Among singleton births, black mothers were twice as likely to have a LBW infant as white mothers and 1.6 times that of Alaska Native mothers. (Figure 2)

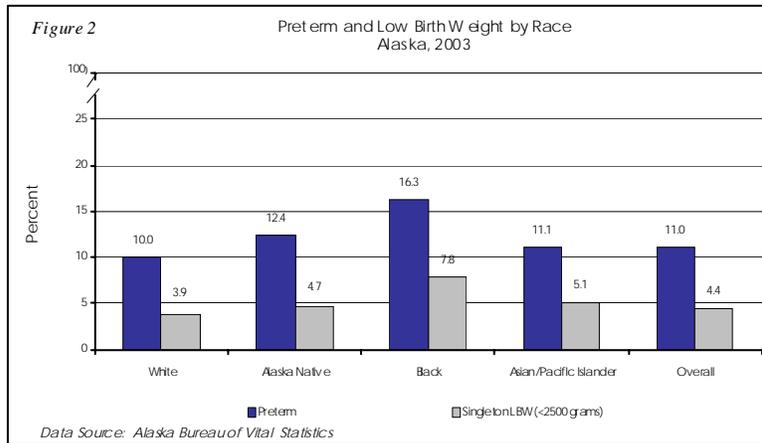
¹¹³ Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

¹¹⁴ U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.

¹¹⁵ Assessment of Risk Factors for Preterm Birth. ACOG Practice Bulletin No. 31. American College of Obstetricians and Gynecologists. Obstet Gynecol: 98:709-16. 2001.

¹¹⁶ Hamilton BE, Martin JA, Sutton PD. Births: Preliminary Data for 2003. National Vital Statistics Reports: 52(10). Hyattsville, Maryland: National Center for Health Statistics. 2004.

¹¹⁷ Alaska Bureau of Vital Statistics, 2002, 2003: State of Alaska, DHSS, DPH. Jan 2005.



Birth Defects

Birth defects are a leading cause of mortality – accounting for approximately 20% of deaths to infants in Alaska and the U.S. as a whole. Genetic, environmental, and maternal illness during pregnancy are factors that can cause birth defects, however, the causes for about 70% of birth defects are unknown.

Approximately 18% of infants born in Alaska are reported to the Alaska Birth Defects Registry (ABDR) with at least one reportable birth defect, and approximately 5% are born with at least one major congenital anomaly. Major congenital anomalies are those that are defined and monitored by the National Birth Defects Prevention Network. Cardiovascular defects are the most common major anomalies reported to the ABDR, affecting roughly 1 in 60 newborns.¹¹⁸ Taken individually, three of the most frequently reported birth defects classified as major defects are cardiovascular defects: atrial septal defect, ventricular septal defect, and patent ductus arteriosus (86.1, 77.1, 57.2 per 10,000 live births, respectively).¹¹⁹

¹¹⁸ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 70-71 June 2003.

¹¹⁹ Alaska Birth Defects Counts and Rates, 1997-2001 in: Birth Defects Data. Birth Defects Research (Part A). Teratology: 70:677-771. 2004

Indicator	Alaska	Nation	Healthy People 2010
Infant mortality due to birth defects per 1,000 live births	1.5 (2000-02) [†]	1.4 (2000-02) [^]	1.1
Incidence of spina bifida and other neural tube defects (NTDs)* per 10,000 live births	5.7 (2000-02) [‡]	4.8 (2000) [‡]	3
<small>Estimates of spina bifida and other neural tube defects include spina bifida, anencephaly, and encephalocele. Findings from the Alaska Birth Defects Registry presented here are based on passive reporting to the ABDR and not verified by case chart review.</small> <small>[†] Alaska Bureau of Vital Statistics, 2000-2002 Data: State of Alaska, DHSS, DPH. January 2005.</small> <small>[‡] Alaska Birth Defects Registry (ABDR), 2000-2002 Data: State of Alaska, DHSS, DPH. February 2005.</small> <small>[^] National Center on Birth Defects and Developmental Disabilities (NCBDD), 2000 Data in: Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010, 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office, 2000</small> <small>[*] National Center for Health Statistics (NCHS) Vital Health Statistics System, 2000-2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Feb 2005.</small>			

During 2000-2002, among Alaskan infants that died before their first birthday, more than 1 in 5 died as a result of a birth defect.¹²⁰ Although not significantly different from the Nation, the rate of infant mortality due to birth defects is 40% higher than the Healthy People 2010 (HP2010) goal.

The incidence of spina bifida and other NTDs declined from 9.0 per 10,000 live births during the time period 1996-1998 to 5.7 per 10,000 live births during the time period 2000-2002 – a decrease of 37%.¹²¹ Although Alaska has made considerable improvement for this objective, the incidence of spina bifida and other neural tube defects (NTDs) in Alaska is nearly 2 times that of the HP2010 goal. Compared to the Nation, the incidence of NTDs is approximately 20% higher in Alaska.

Birth Defect Disparities

There are substantial differences in the number of children with anomalies reported by region, with the highest rates in the Interior and Southeast regions, and the lowest in the Northern and Gulf Coast. The ABDR recently started a case verification process, which involves chart reviews to confirm reported anomalies. As this process continues, some of the regional differences may change. Additionally, there are substantial racial disparities in some disorders: for example, Alaska Natives are at high risk of FAS and congenital adrenogenital syndrome, blacks are at high risk for sickle cell disease, and whites are at high risk for cystic fibrosis and phenylketonuria.

¹²⁰ Alaska Bureau of Vital Statistics, 2000-2002 Data: State of Alaska, DHSS, DPH. January 2005.

¹²¹ Alaska Birth Defects Registry (ABDR), 2000-2002 Data: State of Alaska, DHSS, DPH. February 2005.

Fetal Alcohol Syndrome & Other Effects of Prenatal Alcohol Exposure

Fetal Alcohol Syndrome (FAS) and other effects of maternal drinking during pregnancy are 100% preventable – if a woman does not drink any alcohol while she is pregnant. FAS is the leading non-hereditary cause of mental retardation. Many children born affected by maternal drinking during pregnancy have irreversible conditions including severe brain damage that causes permanent, lifelong disability – even if they don't meet the criteria for full FAS (see section B. 1 on data sources for definition). Children with FAS are only about 10% of the entire group of children living with some affect of maternal drinking during pregnancy. The Alaska FAS Surveillance Project estimates that approximately 163 Alaskan children are born every year with some effect from maternal drinking during pregnancy (16.3 per 1,000 live births), including FAS. Extrapolation of Alaska's estimated prevalence provide an estimate of 6,500 people under the age of 45 living in Alaska who may have a disability as a result of maternal drinking during pregnancy. Of these, there are an estimated 2,000 women of childbearing age and 2,500 school-aged children; approximately 600 could have full FAS.

For birth years 1995-1999, more than one-third of Alaskan children who were diagnosed with FAS were born preterm and with low or very low birth weight.

Indicator	Alaska 1995-97 [†]	Nation 1995-97 [^]	Healthy People 2010
Prevalence of Fetal Alcohol Syndrome per 1,000 live births	1.5	0.3-1.5	Developmental
<small>Prevalence estimates for FAS in Alaska are based on 3-year averages due to the small number of events experienced in Alaska. The range used for the national prevalence of FAS is from four states (Alaska, Arizona, Colorado, and New York) participating in the FAS Surveillance Network (FASSNet) that used a comparable methodology for surveillance.</small>			
<small>[†] Alaska Fetal Alcohol Syndrome Surveillance Project (FASSP), 1995-1997 Data: State of Alaska, DHSS, DPH.</small>			
<small>[^] Fetal Alcohol Surveillance System Network (FASSNet), 1995-1997 Data in: Centers for Disease Control and Prevention. Fetal Alcohol Syndrome- Alaska, Arizona, Colorado, and New York, 1995-1997. MMWR: 51(20):433-435. 2002.</small>			

Reducing the prevalence of FAS is a developmental Healthy People objective, and national goals have not yet been defined. However, the Healthy Alaskan 2010 target is 0.5 per 1,000 live births – much lower than the current rate in Alaska. Compared to the Alaska baseline for birth years 1995-1997, the 1996-1998 prevalence of FAS in Alaska was similar with 1.6 per 1,000 live births.

Since surveillance is not conducted in all states there is no reliable national rate for FAS, however, among the four states in the FAS Surveillance Network (FASSNet) that use similar methodology for surveillance, Alaska reported the highest prevalence of FAS – 3.8 to 5 times higher than all other reported rates.

FAS Disparities

Race-specific FAS prevalence estimates should be interpreted with caution. Increased awareness of maternal alcohol use and careful documentation by Alaska Native health organizations may result in more complete reporting of potential cases of FAS among Alaska Natives than other races. Infants born to Alaska Native women have higher rates of FAS than other races. For birth years 1995-1999, FAS prevalence among Alaska Natives was approximately 5 per 1,000 live births – more than 15 times that of whites.

In a recent advisory on alcohol use during pregnancy, the Surgeon General recommended that health professionals regularly ask women of childbearing age about alcohol use and to inform them of the risks of drinking alcohol during pregnancy. It is further recommended that they advise them not to drink alcohol during pregnancy.¹²² In 2002, a survey of FAS Knowledge, Attitudes, Beliefs and Behaviors (KABB) found that 36% of obstetrician/gynecologists responded that it was OK for a pregnant woman to drink alcohol occasionally, more than double the percent of either Pediatricians or Family Physicians. Over 90% of physicians strongly agreed that FAS is preventable.

Infant and Fetal Mortality

Nationally, the leading causes of infant death are birth defects, prematurity/low birth weight, sudden infant death syndrome (SIDS), maternal complications of pregnancy, and respiratory distress syndrome. During the post-neonatal period (28 through 364 days), the leading causes are birth defects, SIDS, injuries, pneumonia/influenza, and homicide.

During 2001-2003, 1 in 345 Alaskan infants died within their first month and 1 in 145 died before their first birthday. During this time period, 69 infants on average died in Alaska annually. Nearly 1 in 6 infant deaths were due to SIDS – accounting for 15.5% of all infant deaths during that time period.

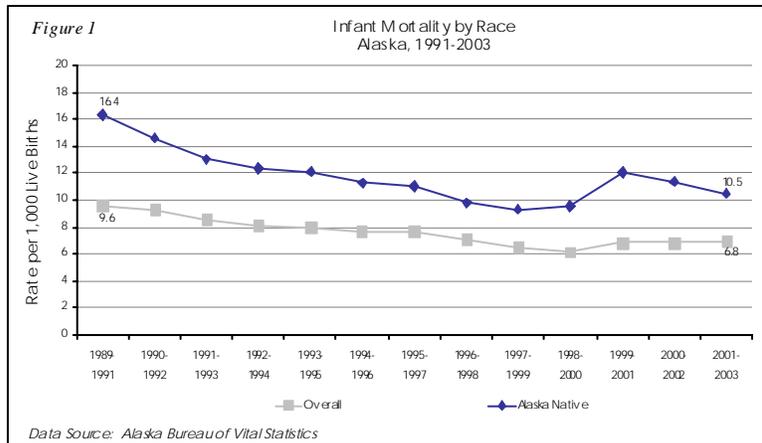
¹²² Advisory Board on Alcoholism and Drug Abuse, Alaska Department of Health and Social Services. Economic Costs of Alcohol and Other Drug Abuse in Alaska, Phase Two. Juneau: McDowell Group. 2001.

Indicator	Alaska (2001-03) †	Healthy People 2010
Fetal mortality rate per 1,000 live births plus fetal deaths	5.0	4.1
Infant Mortality rate per 1,000 live births	6.9	4.5
Neonatal mortality rate per 1,000 live births	2.9	2.9
Post-neonatal mortality rate per 1,000 live births	4.0	1.5
Infant mortality due to SIDS per 1,000 live births	1.07	0.25
<p>Due to the small numbers of events, fetal and infant mortality data are expressed as three-year moving averages for Alaska. For comparability, national rates are presented for the same time periods.</p> <p>National SIDS rates are from National Center for Health Statistics Vital Statistics System, 2000-2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS). February 2005.</p> <p>† Alaska Bureau of Vital Statistics: State of Alaska, DHSS, DPH. Jan 2005.</p>		

Indicator	Alaska (2000-02) †	National (2000-02) ^
Fetal mortality rate per 1,000 live births plus fetal deaths	4.5	6.4*
Infant mortality rate per 1,000 live births	6.9	6.9
Neonatal mortality rate per 1,000 live births	2.9	4.6
Post-neonatal mortality rate per 1,000 live births	3.8	2.3
Infant mortality due to SIDS per 1,000 live births	0.87	.58
<p>Due to the small numbers of events, fetal and infant mortality data are expressed as three-year moving averages for Alaska. National data for 2003 was not available, for comparability, national rates are presented for the same time periods.</p> <p>National SIDS rates are from National Center for Health Statistics Vital Statistics System, 2000-2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS). February 2005.</p> <p>† Alaska Bureau of Vital Statistics: State of Alaska, DHSS, DPH. Jan 2005.</p> <p>^ Kochanek KD, Smith BL. Deaths: Preliminary Data for 2002. National Vital Statistics Reports: 52(13). Hyattsville, Maryland: National Center for Health Statistics. 2004.</p>		

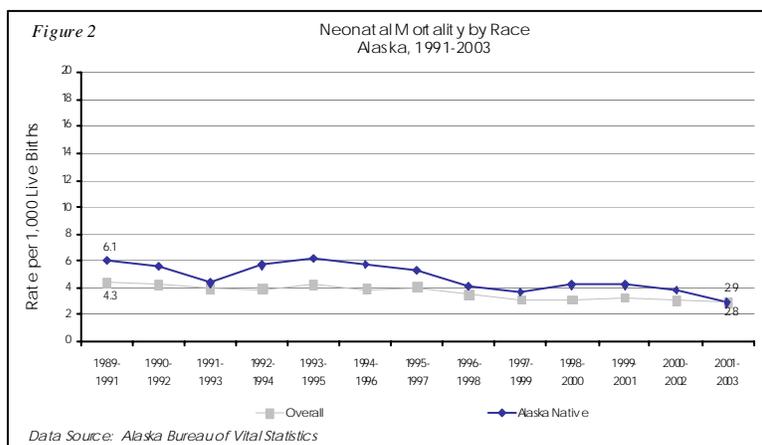
Over the last decade, the overall fetal mortality rate for Alaska has remained fairly constant; maintaining consistently lower than the national rate. Although Alaska's fetal mortality rate was nearly 30% lower than the national rate for 2002 it was nearly 22% higher than the Healthy People 2010 (HP2010) target.

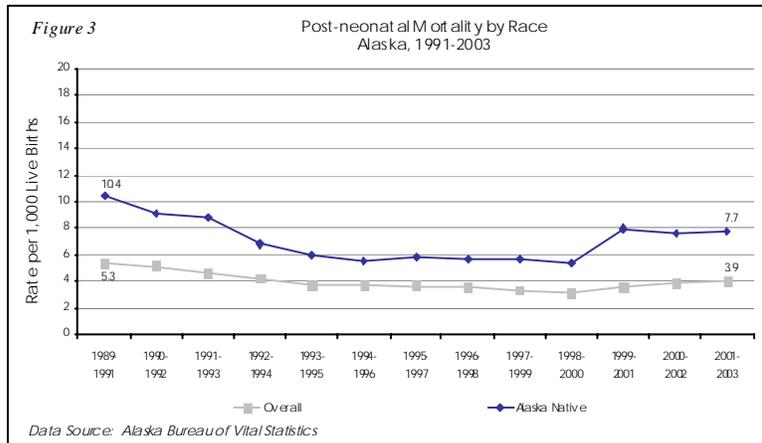
Overall infant mortality decreased 20% over the last decade in Alaska. (Figure 1). During 2000-2002, Alaska's infant mortality rate was identical to the overall rate for the Nation. Although experiencing significant declines in infant mortality over the last decade, Alaska's rate was 53% higher than the HP2010 target.



Neonatal mortality in Alaska declined by nearly 30% over the last decade (Figure 2) and is consistently lower than the national average. The neonatal mortality rate in Alaska was 27% lower than the Nation and achieved the HP2010 goal.

Although post-neonatal mortality in Alaska has declined significantly over the last decade, it has steadily increased since its' low in 1998-2000 – an increase of 30% from 1998-2000 to 2001-2003. (Figure 3) Post-neonatal mortality was 1.6 times that of the national rate and was 2.7 times higher than the HP2010 target.





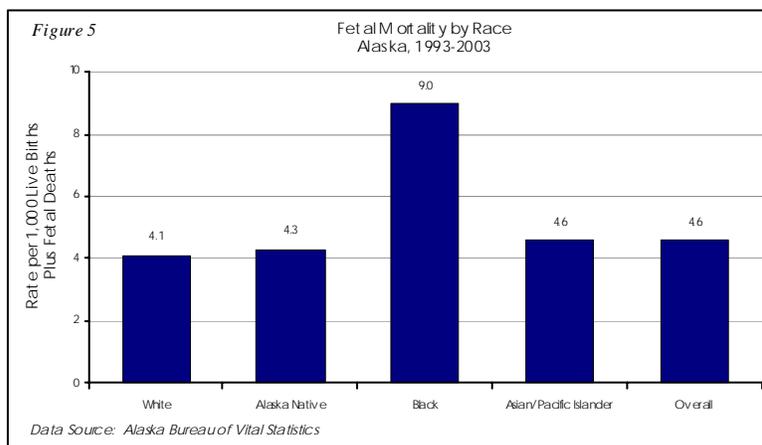
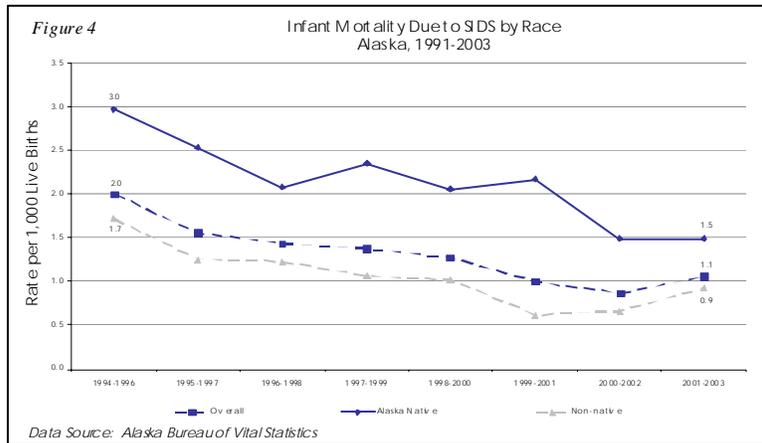
Infant mortality due to SIDS has significantly declined in Alaska. Over the last decade, SIDS rates among both, Alaska Natives and non-Natives, have declined nearly 50%. (Figure 4) In spite of these declines, Alaska’s SIDS rate for 2001-2003 was 4.3 times higher than the HP2010 target and was 1.5 times higher in Alaska compared to the Nation as a whole.

Fetal Mortality Disparities

While the overall fetal mortality rate for Alaska has remained nearly unchanged over the last decade, there has been a significant increase for blacks (68%). During 1993-2003, the average rate of fetal mortality was similar among infants born to white, Alaska Native, and Asian/Pacific Islander women. The average rate among black women was more than 2 times that of all other race groups. (Figure 5)

Infant Mortality Disparities

Infants born to mothers less than 20 years old are significantly more likely to die within the first year compared to infants born to older mothers. During 2000-2002, the infant mortality rate among infants born to women less than 20 years of age was 9.2 per 1,000 live births – 1.3 to 1.4 times greater than women ages 20 or older.



Infant mortality among Alaska Natives is nearly twice that of whites. Although this disparity has remained unchanged over the last decade, there has been a significant decline in infant mortality among Alaska Natives. (Figure 1) Although overall infant mortality has declined overall for Alaska Natives, current post-neonatal mortality rates among this population have increased to resemble rates from the early 1990s. The Alaska Native post-neonatal mortality rate was 8.8 at the beginning of the 1990s then steadily decreased to a low of 5.4 during 1998-2000, before rising to the current rate of 7.8 per 1,000 live births. (Figure 3) During the 1990s, infants born to Alaska Native mothers were 2.5 times more likely to die during the post-neonatal period than those born to white mothers – current trends in Alaska Native post-neonatal deaths have increased this disparity. For the time period 1999-2001 to 2000-2003, post-neonatal mortality among Alaska Natives was 3.3 times that of whites. (Figure 3)

Although significantly declining for both Alaska Natives and non-Natives, deaths due to SIDS are consistently higher among Alaska Natives. During 2001-2003, the rate of SIDS was 1.6 times higher among Alaska Natives than non-Natives. (Figure 4)

Newborn Hearing Screening

Hearing impairment is the most common disability among newborns – with a higher incidence than cerebral palsy, Down Syndrome, and severe mental retardation.¹²³ According to national statistics, on average, 1 in 333 infants are born with some type of congenital hearing loss.^{124,125} Delay in diagnosis can impair a child’s language, speech, psycho-social, and cognitive development.^{126,127,128} Alaska is one of 12 states that do not have mandatory newborn hearing screening.

Indicator	Alaska 2003 [†]	Nation 2001	Healthy People 2010
Increase the proportion of newborns who are screened for hearing loss by age 1 month	81.1%	66%	90%
Increase the proportion of newborns who have audiologic evaluation by age 3 months	---	56%	70%
Increase the proportion of newborns who are enrolled in appropriate intervention services by age 6 months	67%*	57%	85%

[†] Alaska Newborn Hearing Screening Program, 2003 Data: State of Alaska, DHSS, DHCS.

Although under the HP2010 target, Alaska is making progress toward achieving the Healthy People 2010 objectives of increasing screenings, evaluations, and interventions. Although newborn hearing screening has not been consistently done in every community, the number of newborns screened continues to increase significantly on a yearly basis. From 1997-2003, the percentage of newborns screened before hospital discharge increased nearly five-fold.

In 2003, 4 in 5 newborns born in Alaska received newborn hearing screening prior to hospital discharge. Of the infants screened; 12 were identified with Permanent

¹²³ National Center for Hearing Assessment & Management. <http://www.infanthearing.org/presentations/cdc/prevalence.html>

¹²⁴ White, K. R. (October, 1997). The scientific basis for newborn hearing screening: Issues and evidence. Invited keynote address to the Early Hearing Detection and Intervention (EHDI) Workshop sponsored by the Centers for Disease Control and Prevention, Atlanta, Georgia.

¹²⁵ Finitzo T, Albright K, O’Neal J. The newborn with hearing loss: detection in the nursery. *Pediatrics* 1998;102:1452-9.

¹²⁶ Kusche CA, Greenberg MT. Evaluative understanding and role-taking ability: a comparison of deaf and hearing children. *Child Dev* 1983;54:141-7.

¹²⁷ Culbertson JL, Gilbert LE. Children with unilateral sensorineural hearing loss: cognitive, academic, and social development. *Ear Hear* 1986;7: 38-42.

¹²⁸ Grosse S. *Cost comparison of screening newborns for hearing impairment and biochemical disorders.* Center for Disease Control and Prevention. Paper presented at the Newborn Screening and Genetics Conference, May 2001.

Childhood Hearing Loss (PCHL) and 8 of those went on to receive early intervention services.¹²⁹

New Hearing Screening Disparities

The access disparities have been greatly reduced because universal newborn hearing screening programs have been voluntarily adopted in all communities in Alaska where birthing facilities exist. Race and ethnicity data is not available at this time for analysis.

Newborn Metabolic Screening

Newborn metabolic screening was first implemented to find infants born with Phenylketonuria (PKU). Over time, screening panels have expanded to include other disorders. Since 1967, Alaska has attempted to screen all infants born in the State for heritable diseases that can lead to mental retardation or death if left untreated. The Alaska Newborn Metabolic Screening Program tracks infants for screening and surveillance to ensure that infants needing further diagnostic testing are evaluated, treated, and referred to the Alaska Genetics Program. Metabolic disorders are rare but collectively have an incidence of approximately 1 in every 1,000 to 3,000 births, nationally.¹³⁰ Early treatment and intervention has prevented mental retardation or early death for more than 20 infants born in Alaska in the previous two years.

Indicator	Alaska [†]	Healthy People 2010
Ensure that all newborns are screened at birth for conditions mandated by their State-sponsored newborn screening programs	>99%	Dev.
Ensure that follow-up diagnostic testing for screening positives is performed within an appropriate time period	100%	Dev.
Ensure that infants with diagnosed disorders are enrolled in appropriate service interventions within an appropriate time period	100%	Dev.
[†] Alaska Newborn Metabolic Screening Program, 2004 Data: State of Alaska, DHSS, DHCS.		

Alaska currently obtains metabolic screens on nearly all infants born in the state. Of these, nearly 90% receive a second metabolic screen. In 2004, 10,221 infants were screened with 12 confirmed cases of disease or a disorder and another 167 identified with an abnormal homozygous hemoglobinopathy, carrier trait, or alpha thalassemia.

¹²⁹ Alaska Newborn Hearing Screening Program, 2003 Data: State of Alaska, DHSS, DHCS.
¹³⁰ Bryant KG, Horns KM, et. al. A Primer on Newborn Screening. Adv Neonatal Care: 4(5):306-317. 2004.

Many of the disorders in the metabolic panel can be detected on a second screen with a normal first screen (termed late onset disorders). Although nearly 90% of Alaskan newborns received a second screening in 2004 – an increase of 9.4% from the previous year (81.95%), all newborns should receive a second screening. In Alaska, 6% of all infants with PKU and 10% of those with hypothyroidism are found only on the second screen.

Newborn Metabolic Disparities

Alaska Native infants have a higher incidence of CAH. In 2001-2004, the average incidence of CAH in Alaska was more than 13 times higher among Yupik Eskimos compared to Alaska overall. (Table 1)

Incidence Rates of Metabolic Disorders/Diseases		
Disorder/Disease	Alaska 2001-04 [†]	Nation [^]
	per 10,000 births	
Congenital Hypothyroidism (CH)	5.5	3.3
Biotinidase	0.25	0.17
Maple Syrup Urine Disease (MSUD)	0.5	0.06
Phenylketonuria (PKU)	0.5	1.0
Medium Chain Acyl-CoA Dehydrogenase Deficiency (MCAD)	1.5	1.0
Congenital Adrenal Hyperplasia (CAH)	2.5	0.83
CAH among Yupik Eskimos	33.3	----

[†] Alaska Newborn Metabolic Screening Program, 2001-2004 Data: State of Alaska, DHSS, DHCS.
[^] National Incidences of Newborn Metabolic Disorders in: Northwest Regional Newborn Screening Program Practitioner's Manual, 6th Edition. 2003.

Breastfeeding

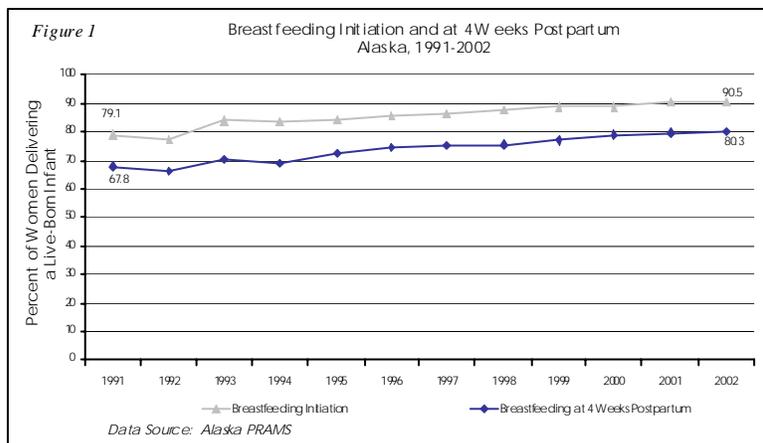
Breast milk is widely acknowledged to be the most complete form of nutrition for infants and the resulting benefits for infants' health, growth, immunity, and development are well documented.¹³¹ Studies have found that non-breastfed infants have increased rates of ear and respiratory infection compared with breastfed infants. A recent large randomized trial of breastfeeding promotion found that breastfeeding reduces the incidence of gastroenteritis and atopic eczema, which is consistent with the findings of earlier observational studies. For the mother, breastfeeding causes more rapid return of uterine

¹³¹ Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

tone, reduced postpartum bleeding, earlier return to pre-pregnancy weight and has been associated with lower risk for ovarian cancer and pre-menopausal breast cancer.

National survey data indicate that in-hospital breastfeeding rates for 2002 were the highest recorded since national breastfeeding data have been collected.¹³² According to the Mothers Survey conducted by the Ross Products Division of Abbott Laboratories, the overall in-hospital breastfeeding rate for 2002 was 70.1% – with Oregon (89.1%), Alaska (87.4%), and Washington (87.1%) showing the highest rates in the nation.¹³³ Data from the Pregnancy Risk Assessment Monitoring System (PRAMS) and the 2003 National Immunization Survey showed similar breastfeeding rates for Alaska.

From 1991 to 2002, the trends for breastfeeding initiation and continuation through the first four weeks after delivery significantly increased – 14% and 20% increases, respectively, for Alaskan mothers overall. Among Alaska Natives the increases were more than 17% and 20%, respectively, during this time period. (Figure 1)



¹³² US Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Women's Health USA 2003. Rockville, MD: U.S. Department of Health and Human Services. 2003.

¹³³ Mothers Survey 2002. Breastfeeding Trends – 2002. Ross Products Division, Abbott Laboratories. Available at http://www.ross.com/images/library/bf_trends_2002.pdf

Indicator	Alaska	Nation [^]	Healthy People 2010
Proportion of women initiating breastfeeding	90.5% (2002) [†]	70.9% (2003)	75%
Proportion of women breastfeeding at 4 weeks	80.3% (2002) [†]	62.3% (2003)	---
Proportion of women breastfeeding at 6 months	48.3% (2003) [^]	36.2% (2003)	50%
Proportion of women breastfeeding at 12 months	28.9% (2003) [^]	17.2% (2003)	25%
For Alaska PRAMS data initiating breastfeeding is defined as having ever breastfed their newborn.			
[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.			
[^] National Immunization Survey 2003. Centers for Disease Control and Prevention, Department of Health and Human Services.			

Alaska is one of 14 states to achieve the Healthy People 2010 target of increasing breastfeeding initiation to at least 75%.¹³⁴ Although just falling short of the HP2010 target for breastfeeding 6 months, Alaska achieved the HP2010 target of increasing breastfeeding at 12 months to at least 25%.

The prevalence of overall breastfeeding initiation in Alaska is significantly higher than the U.S. as a whole and regardless of race, ethnicity, maternal age, education, region, or prenatal Medicaid status, breastfeeding initiation rates for 2001 were significantly higher than the HP2010 goal. Breastfeeding continuation rates were significantly also higher among Alaskan women compared to women in the U.S. as a whole. Breastfeeding for at least 4 weeks, 6 months, and 12 months was significantly higher for Alaska than the Nation. Exclusive breastfeeding rates in Alaska were also significantly higher for Alaska compared to the U.S. as a whole.

Indicator	Alaska 2003 [^]	National 2003 [^]
Proportion of women breastfeeding exclusively at 3 months	53.2%	41.1%
Proportion of women breastfeeding exclusively at 6 months	20.0%	14.2%
Exclusive breastfeeding is defined as only breast milk and water - no solids or other liquids.		
[^] National Immunization Survey 2003. Centers for Disease Control and Prevention, Department of Health and Human Services.		

Breastfeeding Disparities

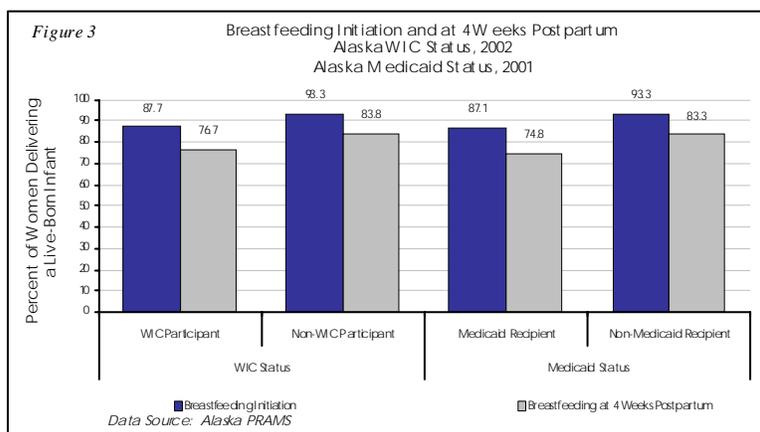
According to a national survey, as maternal age and education level increase, mothers are significantly more likely to breastfeed their newborn.¹³⁵ Analysis of Alaska PRAMS data indicated that education level, region, and Medicaid status were associated with

¹³⁴ National Immunization Survey 2003. Centers for Disease Control and Prevention, Department of Health and Human Services
¹³⁵ National Immunization Survey 2003. Centers for Disease Control and Prevention, Department of Health and Human Services.

breastfeeding initiation and breastfeeding continuation for at least 4 weeks after delivery. In addition, race, maternal age, and region were associated with breastfeeding continuance. These findings are consistent with data from other states participating in PRAMS.¹³⁶

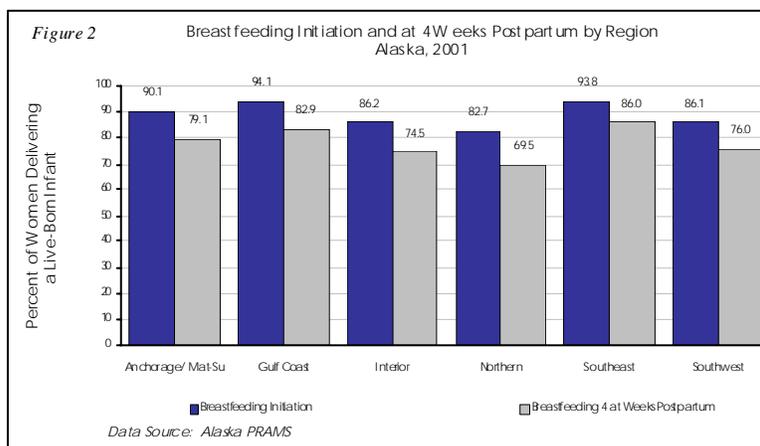
In 2002, white mothers were significantly more likely to initiate and continue breastfeeding than Alaska Native mothers, and they were more likely to continue breastfeeding than Asian/Pacific Islander mothers as well.¹³⁷

Alaska PRAMS 2001 data showed that Alaskan women with at least some college education were significantly more likely to initiate breastfeeding or continue breastfeeding for at least four weeks after delivery than women with a high school education or less. Breastfeeding rates, both initiation and continuation for at least 4 weeks postpartum, were lower among WIC and Medicaid clients compared to non-WIC and non-Medicaid clients. (Figure 3) Alaskan women ages 35 years or over had the highest prevalence of breastfeeding through the first month and were significantly more likely to breastfeed for at least 4 weeks postpartum than women less than 25 years of age. Furthermore, during 1999-2001, the Gulf Coast and Southeast regions had the highest breastfeeding initiation and breastfeeding continuation rates. (Figure 2)



¹³⁶ Beck LF, Morrow B, Lipscomb LE, et al. Prevalence of Selected Maternal Behaviors and Experiences. Pregnancy Risk Assessment Monitoring System (PRAMS), 1999. CDC Surveillance Summaries. MMWR 51(SS02):1-26, Apr 2002.

¹³⁷ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.



Infant Sleep Position and Co-Sleeping

Placing infants to sleep on their backs is a modifiable behavior that has been shown to reduce the risk of Sudden Infant Death Syndrome (SIDS) – one of the leading causes of death to infants. In 1996, the “Back to Sleep” awareness campaign was initiated in Alaska to educate parents about reducing the risk of Sudden Infant Death Syndrome (SIDS) by placing their infants to sleep on their backs.¹³⁸ Concurrent with the Alaska “Back to Sleep” campaign, rates of SIDS or asphyxia of unknown etiology declined 45% between 1992-1996 and 1997.¹³⁹ Co-sleeping refers to the practice of infants sharing the same bed with parents or other children. Some studies suggest that the risk for SIDS increases when an infant co-sleeps, especially when the other party is an impaired individual. Research suggests that bed-sharing with other children also increases the risk of SIDS.¹⁴⁰ Studies in Alaska have found an association between co-sleeping and infant death only in cases where the infant was sleeping with an alcohol or drug-impaired adult.¹⁴¹ Population-based data on the co-sleeping habits of parents or other persons with infants are lacking nationwide. In Alaska, the Pregnancy Risk Assessment Monitoring System (PRAMS) has collected co-sleeping data since 1991.

¹³⁸ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. p 80. June 2003.

¹³⁹ Gessner BG. Findings of the Alaska Maternal-Infant Mortality Review, 1999. Family Health Dataline. State of Alaska, Department of Health and Social Services, Section of Maternal, Child and Family Health. 6.2. 2000.

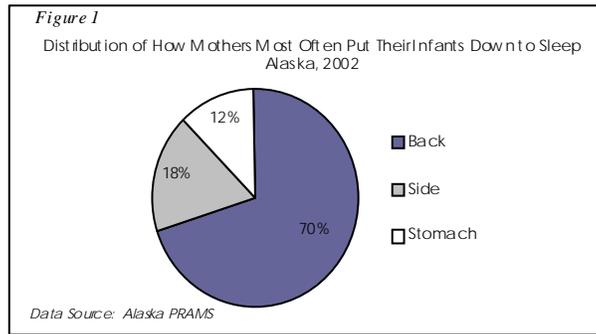
¹⁴⁰ Hauck FR, Herman SM, Donovan M, et. al. Sleep Environment and the Risk of Sudden Infant Death Syndrome in an Urban Population: The Chicago Infant Mortality Study. Pediatrics 111(5):1207-1214. May 2003.

¹⁴¹ Gessner BD, Ives GC, Perham-Hester KA. Association Between Sudden Infant Death Syndrome and Prone Sleep Position, Bed Sharing, and Sleeping Outside an Infant Crib in Alaska. Pediatrics: 108 (4): 923-927. 2001.

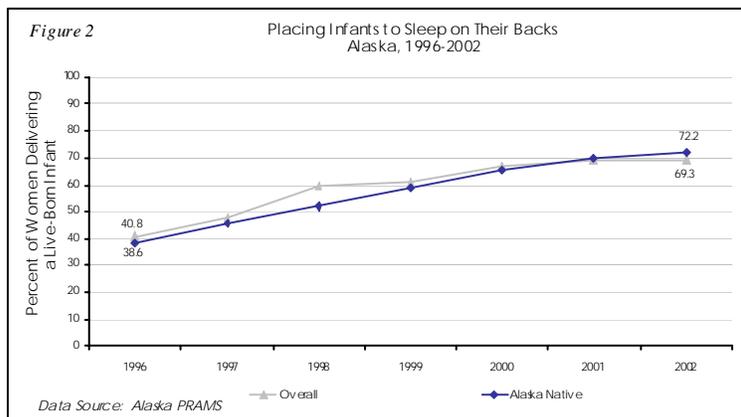
Indicator	Alaska 2002 [†]	Nation 2002 [^]	Healthy People 2010
Proportion of infants put to sleep on their backs	69.3%	71.1%	70%
Proportion of infants that co-sleep	39.5%	----	----

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.
[^] National Infant Sleep Study, 2002 Data: National Institute of Health, National Institute of Child Health and Human Development.

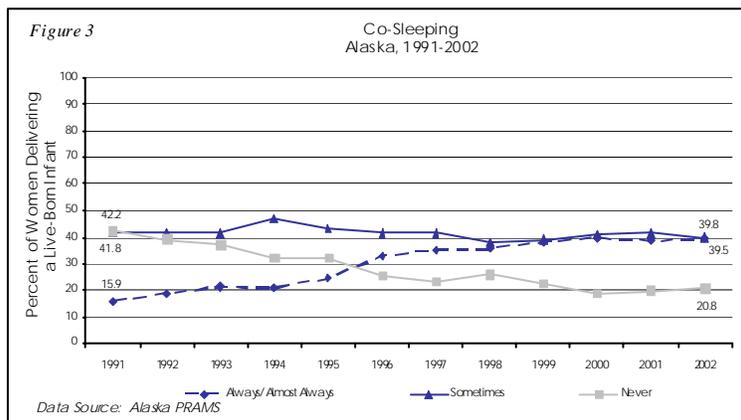
Although not significantly different from the Nation, nearly 7 in 10 Alaskan mothers reported that they regularly put their infant to sleep on their back – Alaska has made significant progress in achieving the Healthy People 2010 target. Although Alaskan mothers were more likely to put their infants to sleep on their backs than any other position (Figure 1), approximately 1 in 8 Alaskan infants were at increased risk of SIDS by being put to sleep on their stomachs.



From 1996-2002, the prevalence of putting infants to sleep on their backs significantly increased among Alaskan mothers – nearly 70% for Alaskan mothers overall and nearly 90% for Alaska Native mothers. (Figure 2)



The prevalence of Alaskan mothers always or almost always co-sleeping with their infants has been steadily increasing over the years, though it shows a plateau effect for the 2000s. In 2002 the prevalence was nearly 2.5 times greater than what it was in 1991. The percent of women who “sometimes” co-sleep with their infant has remained fairly consistent, around 40%, so it appears that the trend is moving from “Never” to “Ever” co-sleeping. (Figure 3) More than 1 in 3 Alaskan mothers reported that they always or almost always co-sleep with their infant.



Infant Sleep Position Disparities

Analysis of Alaska PRAMS data indicated that regardless of race, maternal age, education, or prenatal Medicaid status Alaskan mothers did not differ significantly in the manner they placed their infant down to sleep. They did, however, differ by region. During 1999-2001, Alaskan women living in the Southwest region were less likely than women from the Southeast and Anchorage/Mat-Su regions to routinely put their babies to sleep on their backs (57.2%-70.2%, range for all regions).¹⁴²

Co-Sleeping Disparities

Analysis of Alaska PRAMS data indicated that race, maternal age, education, region, and Medicaid status were associated with co-sleeping behavior. Non-white women are more likely than whites to co-sleep with their infants.¹⁴³ Since 1991, Alaska Native co-sleeping prevalence has always been higher than the overall population of mothers of newborns, though the gap has narrowed over the years. In 2001, over 50% of Alaska Native mothers indicated they co-sleep with their newborn. Alaska Native and

¹⁴² Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep)
¹⁴³ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. p 80. June 2003.

Asian/Pacific Islander mothers were significantly more likely to indicate that they or someone else always or almost always co-sleeps with their infant compared with white or black mothers.¹⁴⁴

Co-sleeping was more common among teenage mothers than older mothers. Half of all teen mothers indicated their infant shares a bed. The prevalence of infant co-sleeping is similar for mothers age 20 or older (a little over one-third) regardless of age category. Nearly 60% of mothers with less than a high school education indicated their infant co-sleeps, compared with less than 40% of mothers with at least a high school education. Mothers who used Medicaid for prenatal care expenses reported a significantly higher prevalence of co-sleeping with their infant than non-Medicaid recipients. Furthermore, during 1999-2001, the Northern and Southwest regions of Alaska showed significantly higher co-sleeping prevalence than all other regions – 64.7% and 58.9%, respectively. The Interior region had the lowest co-sleeping prevalence than any other region (28.6%).¹⁴⁵

Unintentional Infant Injury

Although largely preventable, the most common causes of unintentional injury deaths among infants in Alaska and the U.S. are suffocation, motor vehicle accidents, and drowning. Promoting safe home and sleep environments, and regular and proper use of car seats are of critical importance to reduce unintentional infant morbidity and mortality. According to the Centers for Disease Control and Prevention (CDC), many children who ride in child safety seats are improperly secured. A national study estimated that only 15% of children in safety seats were correctly harnessed into correctly installed seats.¹⁴⁶

Falls are a leading cause of traumatic brain injury (TBI) among infants and children. Degree of disability resulting from a TBI can vary depending on force of impact and area of the brain that has been injured. A TBI may result in slight learning disabilities, retinal damage that causes loss of vision, mental retardation, cerebral palsy, or death.¹⁴⁷

¹⁴⁴ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep)

¹⁴⁵ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep)

¹⁴⁶ Taft CH, Mickalide AD, Taft AR. Child passengers at risk in America: a national study of car seat misuse. Washington (DC): National SAFE KIDS Campaign; 1999.

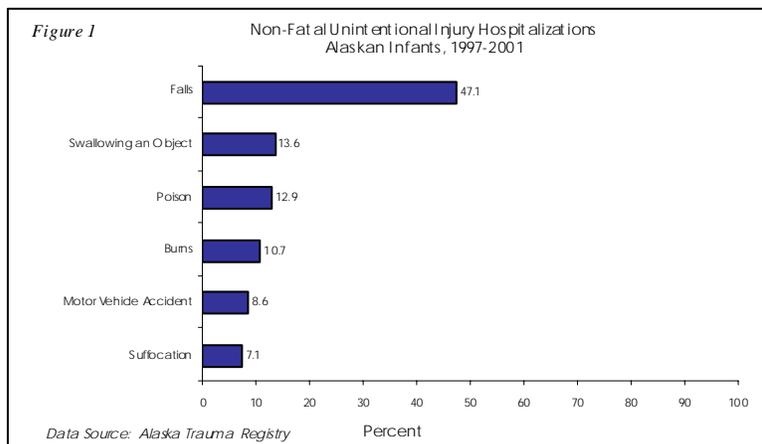
¹⁴⁷ NIH. National Institute of Neurological Disorders and Stroke.

According to the CDC, more than 40% of children that receive emergency room care for non-fatal submersion require hospitalization and are at risk of brain damage which can result in long-term disabilities ranging from memory problems and learning disabilities to the permanent loss of basic functioning.¹⁴⁸

Non-Fatal Unintentional Injury Hospitalizations			
Indicator	Alaska [†] (1997-01)	Nation [^] (2002)	Healthy People 2010
Non-fatal unintentional injury (rate per 100,000)	286.9	271.2	Dev.
Non-fatal motor vehicle occupant (rate per 100,000)	24.0	25.1	---
Non-fatal falls (rate per 100,000)	132.2	116.8	---
Unintentional Injury Mortality			
Indicator	Alaska [‡] (2000-02)	Nation [§] (2000-02)	Healthy People 2010
Unintentional injury mortality (rate per 100,000)	96.9	23.7	17.5
Motor vehicle mortality (rate per 100,000)	4.9	3.3	NA
Mortality due to drowning (rate per 100,000)	3.9	1.6	0.9
Mortality due to falls (rate per 100,000)	0	0.5	NA
Mortality due to fire (rate per 100,000)	2.0	1.1	0.2
<p>NA: The target is not applicable for this indicator. The target setting method for the HP2010 goals is 'Better than the best', which for some special populations does not currently apply.</p> <p>Non-fatal unintentional injury estimates for the Nation and Alaska include infants that were hospitalized, transferred to another acute care facility, held for observation, or left against medical advice and would otherwise have been admitted.</p> <p>[†] Alaska Trauma Registry, 1997-2001 Data: State of Alaska, DHSS, DPH.</p> <p>[^] National Electronic Injury Surveillance System (NEISS), 2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Feb 2005.</p> <p>[‡] Alaska Bureau of Vital Statistics: State of Alaska, DHSS, DPH. Jan 2005.</p> <p>[§] National Center for Health Statistics (NCHS) Vital Health Statistics System, 2000-2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Feb 2005.</p>			

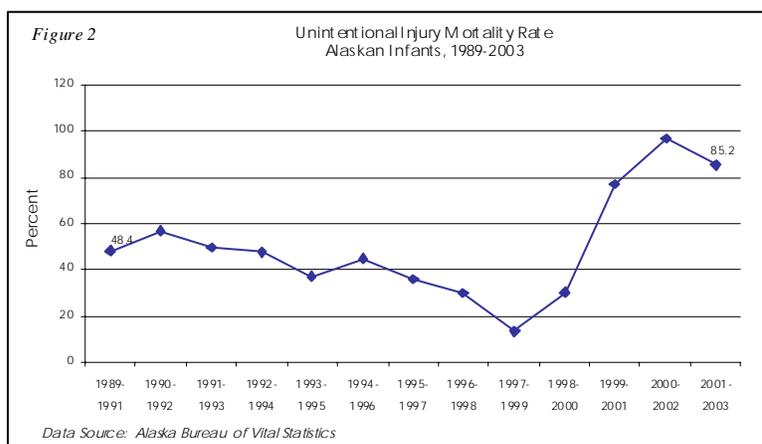
Compared to the Nation, rates of non-fatal unintentional injury among infants – overall, those due to motor vehicle accident, and those due falls, were similar in Alaska. Data from the Alaska Trauma Registry for 1997-2001, indicated that 8 in 10 non-fatal injury hospitalizations among infants were due to unintentional injuries. Of these nearly half (47.1%) were due to falls. After falls, swallowing an object, poison, burns, motor vehicle accident, and suffocation were the most common cause-specific, non-fatal unintentional injuries among Alaskan infants. (Figure 1)

¹⁴⁸ National Center for Injury Prevention and Control. Centers for Disease Control and Prevention. Water-Related Injuries Fact Sheet. <http://www.cdc.gov/ncipc/factsheets/drown.htm> Accessed Jan 2004.



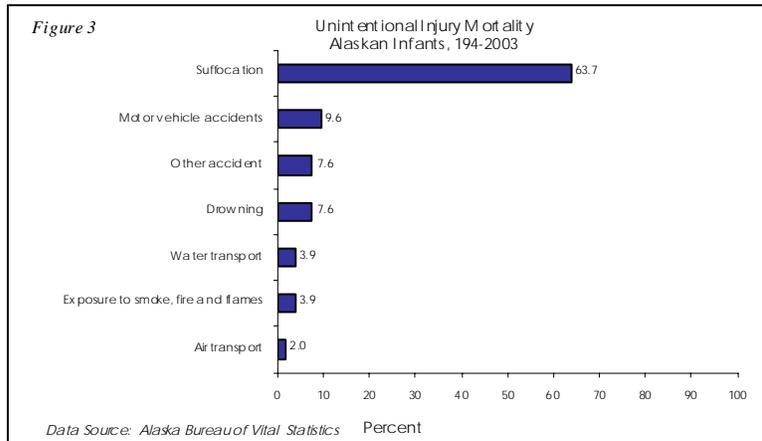
During 2000-2002, unintentional injury accounted for 14.2% of all infant mortality in Alaska, compared to 3.4% for the U.S. as a whole. During this time period, Alaska's unintentional injury mortality rate among infants was 4 times that of the Nation and is 5.5 times higher than the Healthy People 2010 goal.

In Alaska, the trend in infant mortality due to unintentional injury declined over the 1990s, but increased dramatically during the early 2000s – an effect due to an unusually large number of unintentional injury deaths in 2001, of which, more than half were asphyxia related. Asphyxia related deaths in 2001 for Alaska included: probable overlie; positional asphyxia; asphyxia, undetermined; and overlie. (Figure 2)



The average unintentional injury mortality rate from 1994-2003 was 50.3 per 100,000 infants. During this time period, the most common cause of unintentional injury

mortality among Alaskan infants was suffocation – accounting for nearly 65% of all unintentional injury mortality. The second most common cause of unintentional injury mortality for Alaskan infants over the last decade was motor vehicle accidents – accounting for nearly 10% of all unintentional injury mortality. (Figure 3)



Unintentional Injury Disparities

During 1997-2001, compared to non-Natives, the rate of non-fatal unintentional injury hospitalizations among Alaska Native infants was 1.8 times higher – 240.6 and 421.5 per 100,000 infants, respectively.

Over 30% of all unintentional injury deaths during 1994-2003 occurred in 2001. Of these deaths, 7 in 10 were among Alaska Natives. More than 80% of the unintentional injury deaths among Alaska Natives during 2001 were asphyxia related.

Injury Prevention in Alaska

When correctly installed and used, child safety seats reduce the risk of death by 70% for infants and 47%-54% for toddlers and reduce the need for hospitalization by 69% for children aged 4 years and younger.¹⁴⁹ According to data from Alaska PRAMS during 1996-1999, Alaska Native mothers, teen mothers, and mothers with a previous live-birth were less likely to report that their infant regularly rides in an infant car seat than non-Native mothers, mothers 20 years of age or older, and first time mothers.¹⁵⁰

¹⁴⁹ The Guide to Community Preventative Services. Task Force on Community Preventive Services. 2001. Available at: <http://www.communityguide.com>

¹⁵⁰ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53 June 2003.

During 1996-1999, Alaska PRAMS data indicated that 87.2% to 99.6% of mothers living in urban areas reported their baby regularly rides in an infant car seat, 95.1% of families with newborns had a working smoke alarm in the home, and 13.4% of mothers took parenting classes.¹⁵¹

Functional smoke alarms cut the chances of dying in a house fire by 40% to 50%. However, at least one-quarter of U.S. households lack working smoke alarms. According to the Alaska Behavioral Risk Factor Surveillance System (BRFSS) 97.6% of Alaskans reported having a smoke detector in their home in 1999, however, nearly 1 in 5 had either never checked to see if they were working or had not done so in more than one year. According to data from Alaska PRAMS, during 1996-1999, the prevalence of having a working smoke alarm in the home was lower among Alaska Native mothers (89.9%) when compared to white (97.1%) and black mothers (97.6%).¹⁵²

¹⁵¹ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53 June 2003.

¹⁵² Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53 June 2003.

II. Needs Assessment

Section B

3. Assessment of Needs of the MCH Population Group

B. Children and Adolescents

As part of the statewide Five-Year Needs Assessment, WCFH identified the following issues as areas that needed to be fully assessed, analyzed, and described in order to identify and develop the State Priority Needs for Alaska. Several of these issues were presented in both the Child and CSHCN population focus groups for review.

1. Access to Health Care
2. Early Identification and Intervention
3. Mental Health
4. Oral Health
5. Asthma
6. Cancer
7. Diabetes
8. Obesity
9. Physical Activity
10. Nutrition
11. Maltreatment
12. Mortality
13. Unintentional Injury: Morbidity and Mortality
14. Teen Pregnancy and Sexual Behavior
15. Sexually Transmitted Diseases
16. Youth Risk Behaviors: Tobacco, Alcohol, Illicit Drugs
17. Youth Violence

Access to Health Care

Access to health care often depends on whether a person has insurance. The uninsured are less likely to have a primary care provider, receive appropriate care, or have had any recent medical visits.¹ Compared to insured children, uninsured children are less likely to have a regular source of health care and are less likely to use prescription medications.²

Although the association between insurance status and utilization of health care services among adults is well-documented, less is known about the utilization of services among

¹ U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 vols. Washington, DC: U.S. Government Printing Office. 2000.

² Hadely J. Sicker and Poorer: The Consequences of Being Uninsured. Kaiser Commission on Medicaid and the Uninsured. 2002.

children. One study found that the uninsured were 4 times as likely to need medical care and not get it. Further exacerbating health problems and increasing the risk of hospitalization, uninsured children are more likely to receive late or no care for health problems.³

In 2004, the US Census Bureau estimated that 5.7% of children and teens under 19 with an income at or below 200% of the Federal Poverty Limit were uninsured.⁴ These uninsured percentages may be inflated, because access to health care through the Native health services system wasn't counted as insurance. In 2003, 9% of respondents told the Alaska Behavior Risk Factor Surveillance System that the Indian Health Service paid for most of their child's health care and 2.5% of them said their child had no insurance.⁵

Between 1992 and 2001, the cost of medical care in Alaska increased more than 60%, compared to a 25% increase for the overall Consumer Price Index.⁶ Of cities surveyed by the American Chamber of Commerce Researchers Association (ACCRA), health care costs were higher in Fairbanks, Juneau and Kodiak than in Anchorage, and all four cities are in the top twenty in health care costs among those surveyed across the US.

Indicator	Alaska 2002-03 [†]	Nation 2003 [^]	Healthy People 2010
Percent of children less than 18 years of age without health insurance	13.1%	11.8%	0%
<small>[†] Urban Institute and Kaiser Commission on Medicaid and the Uninsured, 2002-2003 Data: Distribution of Children Under 18 by Insurance Status. Available at: www.statehealthfacts.org</small>			
<small>[^] Urban Institute and Kaiser Commission on Medicaid and the Uninsured, 2003 Data: Distribution of Children Under 18 by Insurance Status. Available at: www.statehealthfacts.org</small>			

Alaska has not achieved the Healthy People 2010 goal to have all children under age 18 insured. Similar to that of the Nation, among Alaskan children less than 18 years of age, approximately 1 in 8 are uninsured. From 2001-2003, the proportion of uninsured Alaskan children and teens has remained stable.

³ Health Insurance is a Family Matter National Academies Press, Washington, DC, 2002.

⁴ US Census Bureau, Annual Demographic Survey, Annual Social and Economic Supplement, Current Population Survey, 2004. Available at: http://ferret.bls.census.gov/macro/032004/health/h10_000.htm

⁵ Alaska Behavioral Risk Factor Surveillance Survey, State-Added Child Health Care Coverage/Access Report for the Annual SCHIP Report to CMS, 2003.

⁶ Fried N and Robinson D, The Cost of Living in Alaska, Alaska Economic Trends; 24(6): 3 – 16, June 2004.

In addition to the HP2010 goal, a Healthy Alaskan goal is to increase the proportion of children eligible for Denali KidCare or Medicaid who have public health insurance.

Available Care

Alaska's small population and remote location limit the depth and scope of some health care services, even in Anchorage. In April 2004, the All Alaska Pediatric Partnership determined that additional pediatric sub-specialists are needed in Alaska in the following fields: pulmonology, general surgery, urology, endocrinology, neurology and rheumatology.⁷

Many dentists are not accepting new Medicaid clients in their practices and the state has only 14 pediatric dental specialists. Compounding the problem, the Alaska dental labor force is aging – in FY2002 more than 25% of active, licensed dentists were age 55 years and older – 39% were age 45-54 years.⁸

The Division of Behavioral Health Services (DBH) completed a comprehensive assessment of the mental health and substance abuse needs of Alaska's children and youth in 2004. It found that although nearly 6,000 children and youth had received services during SFY 02, another 9,300 with significant mental health services needs did not.⁹

Barriers to Care

About one-third of Alaskans live in rural and remote communities, most of which are not on the road system. Local health care in the large majority of these villages is offered in the village health clinic by Community Health Aide/Practitioners and itinerant providers. Distance from secondary and tertiary care facilities, weather and complex interpersonal relationships between providers and patients may complicate health care delivery in these communities.

⁷ All Alaska Pediatric Partnership. Meeting Minutes: April 23, 2004.

⁸ Rarig A. Unpublished data from Alaska Occupational Licensing. DHSS, DPH. 2002.

⁹ Alaska Division of Behavioral Health. Children and Youth Needs Assessment (CANYA) Report. March 2004.

Adolescents use the health care system differently than younger age groups, and many are likely to miss needed care.¹⁰ School-based health clinics are a powerful means of eliminating barriers to care,¹¹ but only one high school in Alaska has a school-based clinic. During Federal Fiscal Year 2003, 36% of Medicaid-enrolled 10 – 18 year-olds had a regular check-up, while 56% of Medicaid enrolled infants and children < 10 had one.¹²

Access to Health Care Disparities

The scope of the Alaska Native health services system means that Alaska's largest minority has as good as or better access to care as other groups regardless of location of residence. Other demographic groups, such as recent immigrants to the United States and non-Natives living in remote communities face the most significant challenges.

Access to oral health care has long been a challenge, especially for low-income families living outside Anchorage. Less than one-half (37%) of the 88,774 children enrolled in Medicaid during Federal Fiscal Year 2003 received any Medicaid-funded dental services.¹³ This proportion varied dramatically across the State, from 28% of the children living in the North Slope Borough to 53% of those living in the region served by the Eastern Aleutian Tribes.

An oral health screening of Alaska Native dental clinic users in 1999 indicated Alaska Native children experienced 3 to 4 times the amount of dental decay as their national counterparts. Additionally, severe early childhood caries was found in 59.7% of 2-4 year old Alaska Native children screened during the project.¹⁴

Early Identification and Intervention

As many as 35% of students with learning disabilities do not finish high school. Students with Attention Deficit Hyperactivity Disorder (ADHD) are more likely to develop

¹⁰ Klein JD, Wilson KM, et al. Access to Medical Care for Adolescents: Results from the 1997 Commonwealth Fund Survey of the Health of Adolescent Girls. JAH: 25(2): 120-130. August 1999.

¹¹ Juszczak L, Melinkovich P and Kaplan D. Use of Health and Mental Health Services by Adolescents Across Multiple Delivery Sites. ADH: 32(6) (supplement):108-118. June 2003.

¹² Alaska Division of Health Care Services. FY 03 EPSDT Report to the Centers for Medicare and Medicaid Services (CMS 416). April 2004.

¹³ Alaska Division of Health Care Services. FY 03 Regional EPSDT report. December 2004.

¹⁴ Indian Health Service. An Oral Health Survey of American Indian and Alaska Native Dental Patients: Findings, Regional Differences and National Comparisons. Rockville, MD. Indian Health Service, U.S. Department of Health and Human Services. 1999.

conduct, emotional and social problems, and as many as 20-25% of adults abuse alcohol, marijuana or other drugs. Individuals with ADHD are also at greater risk of illiteracy, unemployment, social maladjustment, anxiety, obsessive-compulsive disorder and other mental and physical disorders.¹⁵ Early intervention services are designed to meet the developmental needs of children from birth to 3 years of age who have a developmental delay (e.g., physical, emotional, communicative, cognitive, or adaptive development). Children with developmental delay and disabilities have unique special health care, developmental and education needs. Developmental delays and disabilities that are not addressed early can impact a child's health, family function and growth and development. Infant and toddler early intervention programs are intended to identify developmental delay, intervene early to improve child and family function, and ameliorate, whenever possible, conditions that increase the burden of long-term care associated with disabilities.

Through early intervention programs, young children with developmental delays are addressed through a family-centered approach, impacting the amount of special education services that are required for these children when they transition to school districts at age three.

In 2004, a federal contract was obtained to determine the estimated prevalence for infants and toddlers in Alaska requiring early intervention services. The report found that Alaska fell somewhere in the middle of all states in serving infants and toddlers at 2.2%.¹⁶ With one of the country's most narrow definitions of eligibility for infant and toddler early intervention services – a delay of 50% or greater in one or more developmental domains – the Alaska Early Intervention/Infant Learning Program (EI/ILP) served approximately 2.2% of the birth to three year old population for the period 2001-2003. Of the 1,737 children receiving EI/ILP services, 72% (1,258) met the federal Part C definition.¹⁷

¹⁵ Boon, R., Submission to the Legislative Council of New South Wales, Standing Committee on Social Issues, Early Intervention (0-8 years) for Learning Disabilities Including ADHD/ADD Multi-modal intervention strategies. 2001 Legislative Report.

¹⁶ Goldhammer, K. Alaska Prevalence Report for Part C Eligibility, 2005.

¹⁷ Goldhammer, K. Alaska Prevalence Report for Part C Eligibility, 2005.

In an average year in Alaska approximately 10,000 live births occur, of these, 10.3% (1,028) are born preterm, 5.7% (573) are born with low or very low birth weight and 18% (1,800) are born with at least one reportable birth defect.¹⁸

During 2000, 6.9% (11,406) of non-institutionalized children in Alaska, ages 5-20 have been estimated to have a disability;¹⁹ and an estimated 10.7% (20,222) children less than 18 years of age in Alaska have special health care needs.²⁰

Early Identification and Intervention Disparities

In Alaska, studies identifying specific age, sex, and race disparities among children with developmental delay and disabilities are not readily available for Alaska. Once a developmental delay or other disability exists, rural residence and poverty may be associated with less access to care, potentially exacerbating the progression and adverse consequences of the disability.

Mental Health

According to the Global Burden of Disease, a study commissioned by the World Health Organization and the World Bank, four of the ten leading causes of disability are related to mental health. Furthermore, mental health disorders account for over 15% of the burden of disease in the United States, more than the disease burden caused by all cancers.²¹ Nationally, 1 in 5 children have a diagnosable mental, emotional, or behavioral disorder; and up to 1 in 10 may suffer from a serious emotional disturbance. However, 70% do not receive mental health services.²²

Children with developmental disabilities are at an especially high risk of having co-occurring mental health disorders. Some recent studies have shown that between 30-50% of children with developmental disabilities also have mental health disorders.²³ Specific

¹⁸ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 15 June 2003.

¹⁹ U.S. Census Bureau, 2000 Decennial Census, Fact Sheet: Table DP-2. Profile of Selected Social Characteristics: 2000, Geographic Area: Alaska.

²⁰ National Survey of Children with Special Health Care Needs (2001). Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook. Rockville, MD: U.S. Department of Health and Human Services. 2003.

²¹ Murray C.J.L, Lopez AD, eds. The Global Burden of Disease and Injury Series, Volume 1: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020. Cambridge, MA: Published by the Harvard School of Public Health on behalf of the World Health Organization and the World Bank, Harvard University Press. 1996.

²² U.S. Department of Health and Human Services. Mental Health: Culture, Race and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General. Rockville, MD U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services. 2001.

²³ Dykens, E. Psychopathology in Children with Intellectual Disability. J. Child Psychology and Psychiatry: 41(4):407-417. 2000.

disabilities have even higher rates associated with mental health disorders, such as autism, Fetal Alcohol Spectrum Disorders, Down syndrome and Prader-Willi syndrome.

The Center for Mental Health Services (CMHS) estimates that 1 in 33 children and 1 in 8 adolescents may have depression. Furthermore, once a child experiences an episode of depression they are at-risk of having another episode within the next five years.²⁴

In Alaska, given the level of adolescent suicide, substance abuse, domestic violence, child abuse and neglect, and children living in custodial arrangements, there has been increasing concern for the mental health status of children and adolescents and the availability and accessibility of mental health services in the State.^{25,26,27} During 2001-2003, 49 Alaskan teens ages 15-19 committed suicide – a rate of 31 per 100,000 population.

When children experience mental health disorders, they and their families need access to a comprehensive array of services, often called a system of care. This system includes prevention, early intervention, screening, assessment, and a spectrum of treatment options ranging from in-home and outpatient services, to inpatient hospital care. Furthermore, families need access to information about best practices and training on strategies for helping their child succeed in school, in the community and at home.

The majority of mental health disorders have unknown etiologies and so are not preventable. Interventions thus focus on early identification, removing barriers to care, and delivering appropriate treatment. Prevention and intervention services have the potential to reduce the economic burden of mental illness by increasing developmental outcomes, which in turn leads to more productive adulthood. Furthermore, several studies have demonstrated that when barriers such as cost are removed, the use of mental health services dramatically increases.

²⁴ U.S. Department of Health and Social Services, Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Mental Health Services. Major Depression in Children and Adolescents. CA-0011. April 2003.

²⁵ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53 June 2003.

²⁶ Alaska Suicide Prevention Plan, <http://health.hss.state.ak.us/suicideprevention/StatePlan/default.htm>

²⁷ Alaska Department of Health and Social Services, Division of Behavioral Health. Children and Youth Needs Assessment Summary and Recommendations. State of Alaska, Department of Health and Social Services, Division of Behavioral Health. 2004.

There is a lack of intervention strategies for children with autism spectrum disorders. For unknown reasons, the number of children diagnosed with autism has grown dramatically across the country, and Alaska is no exception. When provided early, behavioral and other therapeutic interventions for children with autism spectrum disorders may greatly reduce the need for special education and support throughout their lives.

Indicator	Alaska [†] 2003	Nation [^] 2003	Healthy People 2010
Percent of adolescents in grades 9 through 12 that attempted suicide requiring medical attention	2.1%	2.9%	1%
<small>[†] Alaska Youth Risk Behavior Surveillance Summaries (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMW: 53(SS-2). May 2004.</small>			
<small>[^] Youth Risk Behavior Surveillance Summaries (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMW: 53(SS-2). May 2004.</small>			

The percent of Alaskan high school students that attempted suicide requiring medical attention was twice as high as the Healthy People 2010 (HP2010) goal, however, similar to the Nation.

The following Healthy People and Healthy Alaskans 2010 goals related to child and adolescent mental health are developmental: Increase the number persons seen in primary health care who receive mental health screening and assessment; increase the proportion of children with mental health problems who receive treatment; increase the proportion of juvenile justice facilities that screen new admissions for metal health problems; increase the proportion of persons with co-occurring substance abuse and mental health disorders who receive treatment for both disorders. At this time, targets have not been set and data sources have either not been identified or there is currently no system in place to collect data.

In Alaska, the most common primary diagnoses of children receiving mental health services through the Division of Behavioral Health, financed through Medicaid, during FY2001 were: Attention Deficit Hyperactivity Disorder (ADHD), Adjustment Disorders,

Conduct Disorder, Depression, and Post Traumatic Stress Disorder.²⁸ Many children have multiple diagnoses. Mental health disorders can contribute to poor school performance, drug use, unemployment, antisocial and criminal behavior, and self-destructive behavior, including suicide.

In Alaska, a recent unpublished analysis of Medicaid billing claims from 1998-2002 found that each year approximately 10% (5,700) of the Medicaid-eligible children ages 0-14 years had billing claims for mental disorders, including 1.2% (100) of infants less than one year of age, 5.6% (945) of children 1-4 years of age, 11% (2,045) of children 5-9 years of age, and 16% (2,609) of children 10-14 years of age.

Over a one-day count of Alaska's juvenile justice population completed during 2002, 40% of youth served by Division of Juvenile Justice had at least one diagnosis of mental disorder classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Within this group 42% had a co-occurring substance abuse disorder.²⁹

During 1999, an estimated 15,000 Alaskan adolescents ages 5-18 years had severe emotional disturbances, however, only one-third (36.6%) received treatment.

Mental Health Disparities

According to the Surgeon General's Report on Mental Health, disparities exist with respect to mental health care of racial and ethnic minorities when compared with whites. Minorities have less access to mental health services, are less likely to receive care, and their treatment is often of poorer quality. In addition, minorities are underrepresented in mental health research.³⁰ Other studies have shown similar findings. In Washington, Alaska Native and Hispanic youth with depression were 60-70% less likely than white youth to have received an antidepressant or a mental health specialty visit.³¹

²⁸ Alaska Department of Health and Social Services, Division of Behavioral Health. Children and Youth Needs Assessment Summary and Recommendations. State of Alaska, Department of Health and Social Services, Division of Behavioral Health. 2004.

²⁹ Alaska Department of Health and Social Services, Division of Behavioral Health. Children and Youth Needs Assessment Summary and Recommendations. State of Alaska, Department of Health and Social Services, Division of Behavioral Health. 2004.

³⁰ U.S. Department of Health and Human Services. Mental Health: Culture, Race and Ethnicity - A Supplement to Mental Health: A Report of the Surgeon General. Rockville, MD U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services. 2001.

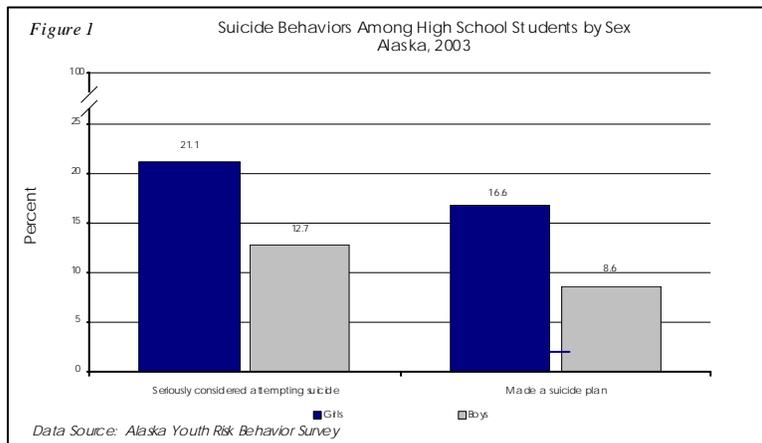
³¹ Richardson LP, DiGiuseppe D, Garrison M, Christakis DA. Depression in Medicaid-Covered Youth: Differences by Race and Ethnicity. Arch Pediatr Adolesc Med; 157:984-9. 2003.

American Indian and Alaskan Natives have the highest rate of suicide in the nation in the 15-24 year old age group and Alaska Native teens have one of the highest suicide rates ever documented.³² In Alaska, Alaska Native teens are more likely to commit suicide than non-Natives. During 1991-1999 the suicide rate for Alaska Native male teens (ages 15-19) was 6 times higher than the suicide rate for non-Native males in the same age group – 187.1 and 30.5 per 100,000 population, respectively.³³

In Alaska, over 175 rural villages, which are predominantly Alaska Native, have no local mental health services.

According to the National Institute of Mental Health, teen girls are more likely to develop depression than teen boys.³⁴ Data from the 2003 Alaska Youth Risk Behavior Survey (YRBS) indicated that high school girls grades 9 through 12 were more likely to have suicide thoughts and make suicide plans compared to high school boys.³⁵

Compared to boys, Alaskan high school girls were nearly 2 times as likely to report having made a suicide plan and 1.7 times as likely to report having seriously considered attempting suicide in 2003.³⁶ (Figure 1)



³² Gessner BD. Temporal Trends and Geographic Patterns of Teen Suicide in Alaska, 1979-93. *Suicide Life Threat Behav*: 27:264-73. 1997.

³³ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53 June 2003.

³⁴ National Institutes of Health, National Institute of Mental Health. Depression. Bethesda (MD): National Institute of Mental Health, National Institutes of Health, US Department of Health and Human Services. 2000.

³⁵ State of Alaska, Department of Public Health, Maternal and Child Health (MCH) Epidemiology. Risk Behaviors Among Alaskan Youth Decrease. Alaska MCH Facts: 3(4). May 2004.

³⁶ State of Alaska, Department of Public Health, Maternal and Child Health (MCH) Epidemiology. Risk Behaviors Among Alaskan Youth Decrease. Alaska MCH Facts: 3(4). May 2004.

Oral Health

Despite dramatic reductions in tooth decay over the past century, dental decay remains one of the most common childhood diseases in the United States. According to the Centers for Disease Control and Prevention, dental decay is the second most common chronic disease among U.S. children.³⁷ Dental decay is 5 times more common than asthma and 7 times more common than hay fever.³⁸ In the United States, 25% of children and adolescents experience 80% of all dental decay occurring in permanent teeth.³⁹ Fluoridated water, toothpastes, supplements and topical rinses/gels along with dental sealants have decreased the extent of decay in children. However, children in low-income families are disproportionately affected by dental decay.

Dental decay is a preventable health problem, however, left untreated it can significantly affect health, ability to concentrate in school, and quality of life.⁴⁰ Nationally, children miss almost 52 million school hours annually because of oral health problems.⁴¹ Extensive tooth decay, pain, or infection can cause eating, learning, and speech problems for children. Furthermore, many adolescents with oral problems such as decayed or missing teeth suffer embarrassment and diminished self-esteem.

Medicaid/Denali KidCare is the dental coverage source for many of the children and adolescents with special health care needs. Only about 1 in 3 children enrolled in Medicaid/Denali KidCare receive an annual dental service.⁴² Furthermore, many dentists are not accepting new Medicaid clients in their practices and the state has only 14 pediatric dental specialists. Compounding the problem, the Alaska dental labor force is aging – in FY2002 more than 25% of active, licensed dentists were age 55 years and older – 39% were age 45-54 years.⁴³

³⁷ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2003. Rockville, Maryland: U.S. Department of Health and Human Services. 2003.

³⁸ National Institute of Dental and Craniofacial Research. Oral Health in America: A Report of the Surgeon General – Executive Summary. Rockville, MD: NIDCR. 2000.

³⁹ Kaste LM, Selwitz RH, Oldakowski RJ, Brunelle JA, Winn DM, Brown LJ. Coronal Caries in the Primary and Permanent Dentition of Children and Adolescents 1-17 Years of Age: United States, 1988-1991. Journal of Dental Research; 75(Special Issue):631-641. 1996.

⁴⁰ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2003. Rockville, Maryland: U.S. Department of Health and Human Services. 2003.

⁴¹ Gift HC, Relaine ST, Larach DC. The Social Impact of Dental Problems and Visits. American Journal of Public Health; 82(12):1663-1668. 1992.

⁴² Alaska Department of Health and Social Services. Medicaid Program data. CMS416 utilization reports.

⁴³ Rarig, A. Unpublished data from Alaska Occupational Licensing. Division of Public Health, Alaska Department of Health and Social Services. 2002.

Indicator	Alaska 2004 [†]	Nation 2000 [^]	Healthy People 2010
Proportion of 3 rd graders with at least one sealant on a permanent molar tooth	52.4%	28% [*]	50%
Proportion of 3 rd graders that have experienced tooth decay	65.1%	50% [‡]	42%
Proportion of 3 rd graders with untreated decay	28.0%	26% [‡]	21%
[†] Hardison JD, Eberling S. 2005. Preliminary data from the Results of the 2004 Oral Health Survey of Alaskan Third Graders. Contract project for the Alaska Oral Health Program, Department of Health and Social Services. [^] National Health and Nutrition Examination Survey, 2000. Centers for Disease Control and Prevention, Department of Health and Human Services, National Center for Health Statistics. Data in Healthy People 2010 Progress Review Focus Area 21 - Oral Health. Available at: http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.htm [*] National data is for children ages 8 years only [‡] National data is for children ages 6-8 years only			

Alaska has achieved the Healthy People 2010 (HP2010) goal for sealant utilization among 3rd graders; furthermore, the proportion of Alaskan 3rd graders with at least one sealant on a permanent tooth was nearly 2 times higher than that of eight year olds in the Nation as a whole.

The proportion of Alaskan 3rd graders that have experienced dental caries is more than 1.5 times higher than the HP2010 goal and 1.3 times higher compared to children ages 6-8 years nationally. Furthermore, untreated dental decay among Alaskan 3rd graders is slightly higher than both the HP2010 goal and the proportion of 6-8 year olds with untreated dental decay in the Nation as a whole.

An oral health screening of Alaska Native dental clinic users in 1999 indicated Alaska Native children experienced 3 to 4 times the amount of dental decay as their national counterparts. Additionally, severe early childhood caries was found in 59.7% of 2-4 year old Alaska Native children screened during the project.⁴⁴

Oral Health Disparities

Children in families with low incomes have 5 times more untreated decay than children in higher income families.⁴⁵ Data from the 2001 National Health Interview Survey found that problems related to oral health are more common among black, Hispanic, and low-

⁴⁴ Indian Health Service. An Oral Health Survey of American Indian and Alaska Native Dental Patients: Findings, Regional Differences and National Comparisons. Rockville, MD. Indian Health Service, U.S. Department of Health and Human Services. 1999.

⁴⁵ U.S. General Accounting Office. Oral Health: Dental Disease is a Chronic Problem Among Low-Income populations and Vulnerable Populations. Washington, DC: U.S. General Accounting Office. 2000.

income children in the United States.⁴⁶ Nearly 80% of children living at or above the Federal Poverty Level (FPL) had seen a dentist in the past year of the survey, compared to 62% of low-income children (below 200% of the FPL).⁴⁷ Compared to higher income children, low-income children were nearly 2 times more likely not to receive dental care in the last year.⁴⁸

Data from the 2004 Oral Health Assessment of Alaskan 3rd graders indicated that race was significantly associated with oral health issue. Among 3rd grade children in the State, Alaska Natives were significantly more likely to have experienced dental caries and to have untreated dental caries than white children. The prevalence of Alaska Native 3rd graders with dental caries experience was 1.6 times higher than that of either white or black children – 87.3%, 54.7% and 53.7%, respectively. Among Alaskan 3rd graders, Alaska Native children were 2.3 times more likely to have untreated dental caries compared to white children – 43.5% and 18.6%, respectively. The highest prevalence of dental sealant utilization was among Alaska Native children (67.8%) – they were significantly more likely to have dental sealants present than white (51.0%), black (29.6%), or Asian/Pacific Islander children (33.3%).

Asthma

Asthma is among the 10 leading activity limiting chronic conditions in the United States.⁴⁹ It is the third leading cause of hospitalization among children under 15 and the leading cause of chronic illness among children.⁵⁰ Asthma is a significant public health burden and the effort to reduce this burden by promoting respiratory health through better prevention, detection, treatment, and education is a national initiative set forth by Healthy People 2010.⁵¹

⁴⁶ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2003. Rockville, Maryland: U.S. Department of Health and Human Services. 2003.

⁴⁷ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2003. Rockville, Maryland: U.S. Department of Health and Human Services. 2003.

⁴⁸ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2003. Rockville, Maryland: U.S. Department of Health and Human Services. 2003.

⁴⁹ U.S. Department of Health and Human Services. Healthy People 2010 2nd ed. With understanding and Improving Health and Objectives for Improving Health: Respiratory Diseases, Focus Area 24. 2 Vols. Washington, D.C.: U.S. Government Printing Office. 2000.

⁵⁰ American Lung Association. Asthma and Children Fact Sheet. June 2004. Available at: www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=44352

⁵¹ U.S. Department of Health and Human Services. Healthy People 2010 2nd ed. With understanding and Improving Health and Objectives for Improving Health: Respiratory Diseases, Focus Area 24. 2 Vols. Washington, D.C.: U.S. Government Printing Office. 2000.

Asthma is a major cause of childhood disability and, in some cases, can cause premature death.⁵² An estimated 4 million children under 18 years old have had an asthma attack in the past 12 months, and many others have undiagnosed asthma. Furthermore, asthma is a major cause of missed school days among school age children – accounting for 14.6 million school days lost in 2002.⁵³

Nationally, during 2000 the prevalence of asthma emergency room visits exceeded 60 per 10,000 population, while asthma hospitalizations exceeded 10 per 10,000 population and deaths exceed 1.5 per 100,000 population.

Recent national data suggest that the burden of asthma among children may have recently plateaued after several years of increasing.⁵⁴ However, asthma mortality rates for children younger than age 5 is the exception to this declining trend – with the asthma death rate increasing among this age group from 1.7 per million in 1999 to 2.1 per million in 2001.⁵⁵

Indicator	Alaska	Nation	Healthy People 2010
Mortality among children less than 5 years of age rate per 1,000,000	0 2000-02 [†]	2.1 2001 [^]	1
Asthma hospitalizations among children less than 5 years of age rate per 10,000	69.3 FY2001 [†]	56.2 2001 ^{^^}	25

[†] Alaska Bureau of Vital Statistics, 2000-2002 Data. State of Alaska, DHSS, DPH.
[†] Alaska Medicaid, FY2001 Data. State of Alaska, DHSS, HCS.
[^] National Center for Health Statistics (NCHS) Vital Health Statistics System, 2001 Data in: Centers for Disease Control and Prevention, Department of Health and Human Services, National Center for Health Statistics. Data in Healthy People 2010 Progress Review Focus Area 24 – Respiratory Diseases. Available at: <http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.htm>
^{^^} National Center for Health Statistics (NCHS), National Hospital Discharge Data, 2001 Data in: Centers for Disease Control and Prevention, Department of Health and Human Services, National Center for Health Statistics. Data in Healthy People 2010 Progress Review Focus Area 24 – Respiratory Diseases. Available at: <http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.htm>

There have been no asthma deaths known to have occurred in Alaska during 2000-2002, currently making Alaska’s rate lower than the Nation and achieving the Healthy People 2010 goal.

⁵² Akinbami LJ, Schoendorf KC. Trends in Childhood Asthma: Prevalence, Health Care Utilization, and Mortality. *Pediatrics*: 110(2):315-322. 2002.
⁵³ American Lung Association. Trends in Asthma Morbidity and Mortality. April 2004. Available at: [www.lungusa.org/att/cf/\(7A8D42C2-FCCA-4604-8ADE-7F5D5E762256\)/ASTHMA1.PDF](http://www.lungusa.org/att/cf/(7A8D42C2-FCCA-4604-8ADE-7F5D5E762256)/ASTHMA1.PDF)
⁵⁴ Akinbami LJ, Schoendorf KC. Trends in Childhood Asthma: Prevalence, Health Care Utilization, and Mortality. *Pediatrics*: 110(2):315-322. 2002.
⁵⁵ U.S. Department of Health and Human Services. Healthy People 2010 Progress Review: Respiratory Diseases. Washington, D.C.: U.S. Government Printing Office. June 2004.

The rate of asthma hospitalizations among children less than 5 years of age is slightly higher in Alaska compared to the Nation and nearly 3 times higher than the HP2010 goal.

The Alaska Hospital Discharge Reporting System reported that during 2001 and 2002 approximately 2.5% to 3.5% of hospitalizations among children less than 15 years of age were due to asthma.

The overall 4-year prevalence of asthma hospitalizations among Medicaid enrollees less than 20 years of age during 1999-2002 was 4.6 per 10,000 population while 9.9% of children with asthma experienced at least one asthma-related hospitalization, 6.1% experienced at least two, and 2% at least four.⁵⁶ During 2000 to 2002 no asthma deaths were known to have occurred. Emergency room visits for Alaskan children have not been evaluated.

Among US children less than 18 years of age, the current asthma prevalence was 8.7% during 2001 (2001 National Health Interview Survey), the lifetime asthma prevalence was 12.6%, and asthma attack prevalence (i.e., the number with at least one asthma attack during the previous year) was 5.7%.⁵⁷

An evaluation of children less than 20 years of age enrolled in Medicaid during 1999-2002, using a conservative definition of asthma, found a 4-year prevalence of 3.1%.⁵⁸ The prevalence was 40-90% greater for urban residents regardless of Alaska Native status.

Yearly prevalence increased from 1.0% to 2.2% with increases among all racial and geographic subgroups. Among persons with asthma, yearly hospitalization risk decreased (9.3% to 6.8%) concurrent with an increase in the yearly use of inhaled corticosteroids (50% to 64%).

⁵⁶ Gessner BD, Neeno T. Trends in Asthma Prevalence, Hospitalization Risk, and Inhaled Corticosteroid Use Among Alaska Native and Nonnative Medicaid Recipients Less Than 20 Years of Age. *Ann All Asth Immunol*. In press.

⁵⁷ American Lung Association. Trends in Asthma Morbidity and Mortality. April 2004. Available at: [www.lungusa.org/atf/cf/\(7A8D42C2-FCCA-4604-8ADE-7F5D5E762256\)/ASTHMA1.PDF](http://www.lungusa.org/atf/cf/(7A8D42C2-FCCA-4604-8ADE-7F5D5E762256)/ASTHMA1.PDF)

⁵⁸ Gessner BD, Neeno T. Trends in Asthma Prevalence, Hospitalization Risk, and Inhaled Corticosteroid Use Among Alaska Native and Nonnative Medicaid Recipients Less Than 20 Years of Age. *Ann All Asth Immunol*. In press.

Asthma Disparities

Evaluation of children enrolled in Medicaid showed that within four predominantly Alaska Native census areas that each had a population of at least 5,000 and a regional hospital, the area with resident pediatricians and the most asthma education efforts had a reported 4-year asthma prevalence 5- to 11- fold higher than other areas.⁵⁹ Compared to non-Natives and rural Alaska Natives, urban Alaska Natives had a greater decrease in hospitalization and greater increase in inhaled corticosteroid use. These findings likely reflect differences in diagnostic practices.

One of the greatest needs related to asthma is to improve awareness of asthma among health care providers, particularly those working with rural Alaska Natives. It is also likely that patient education will need to be increased in rural areas, particularly if more children are diagnosed.

Recent data suggesting that the burden of asthma has plateaued – mortality and hospitalizations due to asthma have decreased over the last few years – is a possible indication that a higher level of disease management is occurring.⁶⁰ Interventions that focus on management by educating providers and patients about asthma (e.g., increasing asthma awareness and avoiding “attack triggers”) may be among the most effective.

Cancer

Cancer is the second leading cause of death in the United States and the leading cause of death in Alaska.^{61,62} Fortunately, cancer is rare in people under age 20. About 77% of all cancers are diagnosed in people age 55 and older and only 1% occurs among people under age 20.⁶³ An estimated 2,500 U.S. children die of cancer annually.

⁵⁹ Gessner BD, Neeno T. Trends in Asthma Prevalence, Hospitalization Risk, and Inhaled Corticosteroid Use Among Alaska Native and Nonnative Medicaid Recipients Less Than 20 Years of Age. *Ann All Asth Immunol*. In press.

⁶⁰ American Lung Association. Trends in Asthma Morbidity and Mortality. April 2004. Available at: [www.lungusa.org/att/cf/\(7A8D42C2-FCCA-4604-8ADE-7F5D5E762256\)/ASTHMA1.PDF](http://www.lungusa.org/att/cf/(7A8D42C2-FCCA-4604-8ADE-7F5D5E762256)/ASTHMA1.PDF)

⁶¹ American Cancer Society. What is Cancer? Cancer Reference Guide. February 2005. Available at: http://www.cancer.org/docroot/CRI/content/CRI_2_4_1x_What_Is_Cancer.asp?sitearea

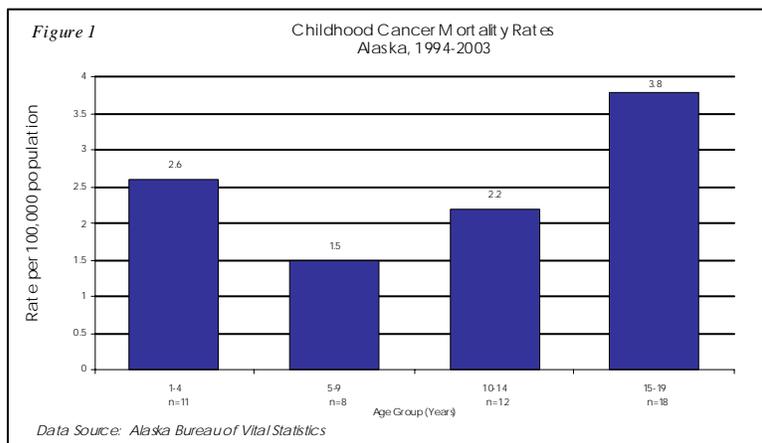
⁶² Jones E, Shattuck K, Mitchell P, Walden S. Alaska Bureau of Vital Statistics – 1999 Annual Report. State of Alaska, DHSS, DPH.

⁶³ Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Mariotto A, Feuer EJ, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2002. Table I-11: Age Distribution of Incidence Cases by Site, 197-2001. National Cancer Institute. Bethesda, MD.

As a cause of death, cancer varies in its relative importance with age. The age of peak cancer incidence among children occurs during the first year of life;⁶⁴ however, cancer is a minor cause of death compared to other events that occur during the perinatal period.⁶⁵ Although the risk of childhood cancer mortality is smallest among children ages 5-9 years, cancer is the second leading cause of death after unintentional injury for this age group. After age ten, cancer is the fourth leading cause of death after unintentional injuries, suicide and homicide.

Among all people under age 20, the most common cancers are Leukemia (31% of childhood cancer), malignancies of the central nervous system (16.6%) and Lymphoma (15%).⁶⁶ Non-Hodgkin lymphomas are more common in early childhood with the reverse being true for adolescents.

Cancer affects a very small proportion of Alaskan children and mortality rates have been presumably stable or declining over time. For the 5-year time period 1997-2001, Alaska's overall cancer mortality rate was similar to the U.S. rate – 199.2 and 199.8 per 100,000, respectively.⁶⁷ Teenagers 15-19 had the highest risk of dying from cancer, 3.8 per 100,000 (n=18). Children age 5-9 had a lower risk of dying from cancer, 1.5 per 100,000 (Figure 1).



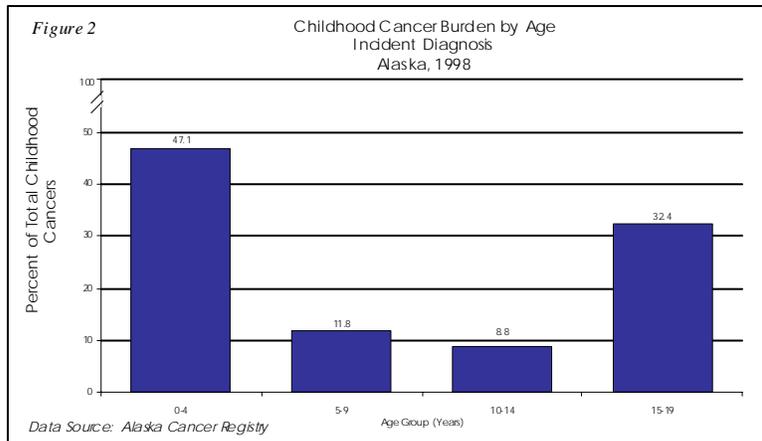
⁶⁴ National Vital Statistics System (NVSS) 1977-2001 Data in: National Cancer Institute (NCI) using Surveillance, Epidemiology, and End Results (SEER) Program. Available at: <http://statecancerprofiles.cancer.gov/>

⁶⁵ Alaska Bureau of Vital Statistics, State of Alaska, DHSS, DPH. Personal communication. 2005.

⁶⁶ Ries LAG, Smith MA, Gurney JG, Linet M, Tamra T, Young JL, Bunin GR (eds). Cancer Incidence and Survival among Children and Adolescents: United States SEER Program 1975-1995. National Cancer Institute, SEER Program. NIH Pub. No. 99-4649. Bethesda, MD, 1999.

⁶⁷ National Vital Statistics System (NVSS) 1977-2001 Data in: National Cancer Institute (NCI) using Surveillance, Epidemiology, and End Results (SEER) Program. Available at: <http://statecancerprofiles.cancer.gov/>

In Alaska, childhood cancers made up 1.9% of all diagnosed cancers reported to the Alaska Cancer Registry in 1998. The relative proportion of cancer incidence varied with age. (Figure 2) Nearly 1 in 5 (21.3%) of all incident leukemia cases occurred among children age 0-4.⁶⁸



Cancer Disparities

The probability of developing cancer prior to age 20 varies slightly by sex, age, and race. The mortality rate for childhood cancer in Alaska for the ten year time period 1994-2003 varied depending on the age of the child. Over the last decade, teens ages 15-19 years were more than 2 times as likely to die from cancer as children ages 5-9 years. (Figure 1)

Diabetes

More than 13,000 children in the United States are diagnosed with type 1 diabetes every year.⁶⁹ Type 2 diabetes, a disease usually seen in people over age 40, is increasingly diagnosed in children and teens – most commonly over the age of 10 and in middle to late puberty.⁷⁰ Research indicates that type 2 diabetes among children increased from fewer than 4% in 1990 to approximately 20% – of the children diagnosed with type 2 diabetes, 85% were obese. The increasing prevalence of childhood obesity and lack of

⁶⁸ Alaska State Cancer Registry, Age Distribution of Invasive Cancers, Alaska 1998. State of Alaska, DHSS, DPH.

⁶⁹ Centers for Disease Control and Prevention. National Diabetes Education Program. Diabetes in Children and Adolescents. Fact Sheet. 2005.

⁷⁰ American Academy of Pediatric. Rise in Childhood Diabetes Linked to Increase in Type 2 Diabetes. News Release. February 2000.

activity among children give concern that type 2 diabetes may be expected to occur in younger pre-pubertal children.⁷¹

Increasing childhood obesity has contributed to increasing childhood diabetes, however, the proportion of children with diabetes experiencing complications during childhood is not known. Diabetes, and particularly poorly managed diabetes, is associated with adult diabetes, early death, vascular disease including heart disease and stroke, renal damage, blindness and other problems. Diabetes is the leading cause of adult blindness, lower limb amputations, and kidney failure.

Gestational (or pregnancy-related) diabetes can be associated with fetal malformations, neonatal hypoglycemia, and other complications. Compared to Alaskan mothers with no diabetes, Alaskan mothers with preexisting or gestational diabetes had an increased risk of a variety of complications including pregnancy-associated hypertension (2.5- and 2-fold, respectively), eclampsia (5.6 and 2-fold), cardiac disease (6- and 1.8-fold), and renal disease (24- and 2-fold). Furthermore, mothers with preexisting or gestational diabetes were more likely to have an amniocentesis, induction of labor, and deliver by caesarian section. Infants born to mothers with preexisting and gestational diabetes had an increased risk of cardiac malformations (16- and 4-fold, respectively), other circulatory or respiratory malformations (24- and 2-fold), assisted ventilation >30 minutes (4.4- and 1.3-fold), and to be born at <37 weeks gestation (3-fold increased risk associated with preexisting diabetes).⁷²

⁷¹ American Diabetes Association. Type 2 Diabetes in Children and Adolescents. *Diabetes Care*; 23(3):381-389. March 2000.

⁷² Alaska Division of Public Health, Section of Epidemiology. Diabetes in Pregnancy, Alaska, 1990-1999. *Epidemiology Bulletin, Recommendations and Reports*, 2001, Vol. 5, No. 3.

Indicator	Alaska 2000	Nation 2000	Healthy People 2010
Prevalence of clinically diagnosed diabetes among person 18 years of age or older rate per 1,000	38 [†]	61 [^]	25
Prevalence of clinically diagnosed diabetes among adolescents less than 18 years of age rate per 1,000	2.0 ^{††}	3.0 ^{^^}	NA
<p>NA The Healthy People 2010 goal for this indicator is not applicable for this age group.</p> <p>[†] Alaska Behavioral Risk Factor Surveillance System (BRFSS), 2000 Data in: Alaska Division of Public Health, Section of Epidemiology, Diabetes in Alaska, 1991-2000: Results from the Behavioral Risk Factor Surveillance System. Epidemiology Bulletin, Recommendations and Reports: 5(4). 2001.</p> <p>[†] Alaska Medicaid Claims: 2000 Data. State of Alaska, DHSS, HCS. The prevalence for Alaska is based on an approved Medicaid claim for diabetes or diabetes medication for children 0-19 years of age and is not representative of clinically diagnosed diabetes.</p> <p>^{††} Behavioral Risk Factor Surveillance System (BRFSS), 2000 Data in: Alaska Division of Public Health, Section of Epidemiology, Diabetes in Alaska, 1991-2000: Results from the Behavioral Risk Factor Surveillance System. Epidemiology Bulletin, Recommendations and Reports: 5(4). 2001.</p> <p>^{^^} National Center for Health Statistics (NCHS) National Health Interview Survey (NHIS), 2000 Data in: Centers for Disease Control and Prevention, Department of Health and Human Services, National Center for Health Statistics. Data in Healthy People 2010 Progress Review Focus Area 5 – Diabetes. Available at: http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa5.htm</p>			

The Healthy People 2010 (HP2010) goal for overall diabetes prevalence is 25 per 1,000 population, however it is not applicable to the prevalence of childhood diabetes; at this time there has been no target set among the child population for this indicator.

According to the Behavioral Risk Factor Surveillance System (BRFSS), the overall prevalence of diabetes among persons 18 years or older during 2000 was significantly lower in Alaska than the age-adjusted value for the US as a whole – 38 and 61 per 1,000, respectively.⁷³

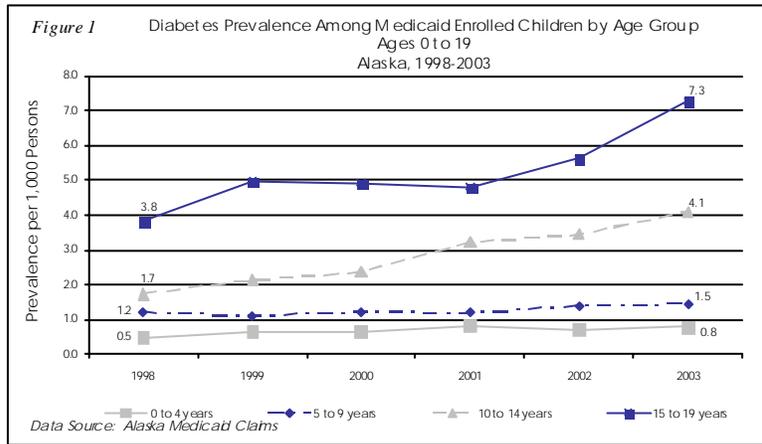
In 2000, the prevalence of childhood diabetes was slightly lower in Alaska compared to the Nation, however the prevalence for Alaska is based on approved Medicaid claims for diabetes or diabetes medication. Medicaid analysis may substantially underestimate diabetes prevalence relative to the prevalence of adult diabetes indicated by results from the BRFSS.

Childhood Diabetes

Among children 0-19 years of age enrolled in Medicaid during 1998-2003, the yearly prevalence of diabetes (based on an approved claim for diabetes or a diabetes-related medication) increased from 151 to 299 per 100,000. Diabetes prevalence increased

⁷³ US Dept Health and Human Services. Overweight and Obesity: Health Consequences. Rockville, MD: US Department of Health and Human Services, Public Health Service, Office of the Surgeon General.

substantially over time for all age groups, but particularly among older children. (Figure 1)



Gestational Diabetes

Based on an analysis of birth certificates from 1990-99 in Alaska, 0.2% (249) of live births occurred to women with pre-existing diabetes and 2.3% (2,445) to women who developed gestational diabetes.⁷⁴ Diabetes risk increased substantially by 5-year maternal age group. The prevalence of pre-existing diabetes increased from 0.1% among the 15-19 year age group to 0.8% among the 40 years or older age group; the prevalence of gestational diabetes increased from 0.9% to 5.5%, respectively for these age groups.

Childhood Diabetes Disparities

Studies outside of Alaska have shown that persons with diabetes of lower socio-economic status experience a higher risk of complications than persons of higher socio-economic status.⁷⁵

Among Alaskan children enrolled in Medicaid, non-Natives are at substantially increased risk compared to Alaska Natives. The yearly prevalence of diabetes among Alaska Natives during 1998-2003 increased from 83 to 203 per 100,000 while the yearly prevalence of diabetes among non-Natives increased from 224 to 424 per 100,000.

⁷⁴ Alaska Division of Public Health, Section of Epidemiology. Diabetes in Pregnancy, Alaska, 1990-1999. Epidemiology Bulletin, Recommendations and Reports, 2001, Vol. 5, No. 3.
⁷⁵ U.S. Department of Health and Human Services. Healthy People 2010: Focus Area 5 – Diabetes. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

Gestational Diabetes Disparities

Alaska Native and white mothers of newborns had approximately the same prevalence of preexisting or gestational diabetes. However, black and Asian/Pacific Islander mothers had a risk about 2 times higher for pre-existing diabetes while gestational diabetes was similar for all racial groups.⁷⁶

Overweight and Obesity

Since the 1970s, the prevalence of obesity has more than doubled for preschool children ages 2-5 years and adolescents ages 6-11 years, and it has more than tripled for children ages 12-19 years.⁷⁷ A recent report from the Institute of Medicine estimates that approximately nine million children over six years of age are currently obese.⁷⁸

Obesity in children is at epidemic proportions in the United States. According to the National Health and Nutrition Examination Survey (NHANES), the prevalence of obesity among children ages 6-19 years has risen from 4% to 15% over the past 30 years.^{79,80} Obesity in childhood is associated with later heart disease, diabetes, hypertension, arthritis, and poor mental health. Furthermore, as rates of overweight and obesity increase, the prevalence of type 2 diabetes among children and adolescents has become increasingly prevalent.⁸¹

Although poor eating habits and lack of activity are the primary causes of overweight and obesity, the factors contributing to the overweight epidemic are complex; such as genetic, metabolic, behavioral, environmental, cultural, and socioeconomic factors. Children with overweight or obese parents are more likely to become overweight or obese adults. A child with one overweight parent is 3 times more likely to become an overweight adult and a child with both parents overweight is 10 times more likely to become an overweight adult. Furthermore, rapid infant weight gain during the first year of life

⁷⁶ Alaska Division of Public Health, Section of Epidemiology. Diabetes in Pregnancy, Alaska, 1990-1999. Epidemiology Bulletin, Recommendations and Reports, 2001, Vol. 5, No. 3.

⁷⁷ Centers for Disease Control and Prevention. National Center for Health Statistics, National Health and Nutrition Examination Survey: NHANES 1999-2000. Prevalence of Overweight among U.S. Children and Adolescents.

⁷⁸ Institute of Medicine. Committee on Prevention of Obesity in Children and Youth. Preventing Childhood Obesity: Health in the Balance, 2005. Food and Nutrition Board, Board on Health Promotion and Disease.

⁷⁹ Prevalence of Overweight among Children and Adolescents: United States, 1999-2000. Available at: <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm>

⁸⁰ National Center for Health Statistics. Health, United States, 2002. Table 71. Overweight Children and Adolescents 6-19 Years of Age, According to Sex, Age, Race, and Hispanic Origin: United States, selected years 1963-65 through 1999-2000. Available at: <http://www.cdc.gov/nchs/products/pubs/pubd/hsu/tables/2002/02hus071.pdf>

⁸¹ Rosenbloom AL, Joe JR, Young RS, Winter WE. Emerging Epidemic of Type 2 Diabetes in Youth. Diabetes Care: 22(2):345-354. 1999.

increases the risk of adult overweight and obesity, particularly for infants born small for gestational age.⁸²

Overweight children have a higher rate of low self-esteem, type 2 diabetes, sleep apnea, bone and joint problems, and gall bladder disease.⁸³ Adolescent obesity (and high non-HDL cholesterol levels) is an independent risk factor for adult atherosclerosis and also operates by contributing to other risk factors such as diabetes and hypertension. It has also been shown that lowering blood cholesterol levels in adults results in a significant reduction of coronary heart disease rates and mortality. However, there have been few long-term studies of the relationship between childhood blood cholesterol levels and adult coronary artery disease.

Indicator	Alaska 98-03†	Nation 99-02^	Healthy People 2010
Percentage of children and adolescents ages 6-11 years that are overweight or obese			
Boys	19%	16.9%	5%
Girls	16%	14.7%	5%
Percentage of children and adolescents ages 12-19 years that are overweight or obese			
Boys	19%	16.7%	5%
Girls	17%	15.4%	5%
Note: Data for Alaska represents the Anchorage School District only.			
† Anchorage School District 1998-2003 Data in: Peterson E, Utermohle C, Green T, Middaugh JP. Prevalence of Overweight among Anchorage Children: A Study of Anchorage School District Data: 1998-2003. State of Alaska Epidemiology Bulletin: 8(9). 2004.			
^ National Health and Nutrition Examination Survey, 1999-2002 Data in: Centers for Disease Control and Prevention. Health United States, 2004.			

The prevalence of overweight and obesity among youth in Alaska and the Nation youth were similar, however, slightly higher among Alaskan youth. The prevalence of overweight and obesity among Alaskan youth (Anchorage school district) is more than 3 times higher than the Healthy People 2010 goal.

In Alaska, the Anchorage School District and the Alaska Division of Public Health assessed the prevalence of overweight among 41,261 children enrolled in the Anchorage

⁸² American Academy of Pediatrics. Prevention of Pediatric Overweight and Obesity. Pediatrics: 112(2):424-430. August 2003.

⁸³ US Dept Health and Human Services. Overweight and Obesity: Health Consequences. Rockville, MD: US Department of Health and Human Services, Public Health Service, Office of the Surgeon General.

School District during 1998-2003.⁸⁴ Over the five-year time period, 2% of students were underweight, 62% were at a normal weight, 18% were at-risk for becoming overweight, and 18% were overweight. More than one-third of the students assessed were overweight or at-risk of overweight. Of students entering kindergarten or first grade, 32% were overweight or at-risk for becoming overweight.

Data from the 2003 Alaska Youth Risk Behavior Survey (YRBS) showed similar findings for the prevalence of overweight among Alaska high school students in grades 9-12.⁸⁵ Among Alaskan high school students, 11% were overweight and 14% were at-risk of becoming overweight – combined, 1 in 4 Alaskan youth in grades 9-12 were at-risk or already overweight.

Furthermore, approximately 2 in 5 high school females in Alaska described themselves as slightly or very overweight and 3 in 5 were trying to lose weight. To lose weight or to keep from gaining weight, nearly 40% Alaskan high school students ate less food or foods low in fat; 59.9% exercised; 9.1% went without eating for 24 hours or more; 6.3% took diet pills, powders, or liquids; and 5.1% vomited or took laxatives.

Overweight and Obesity Disparities

National data indicate that overweight and obesity has increased across all subgroups of the population, however, it is more common among minority groups. Furthermore, the proportion of adolescents from poor households who are overweight or obese is twice that of adolescents from middle- and high-income households.⁸⁶ Data from the Anchorage School District showed similar findings. Students of a race or ethnic background other than white were more likely to be overweight or at-risk for becoming overweight than white students.⁸⁷

⁸⁴ Peterson E, Utermohle C, Green T, Middaugh JP. Prevalence of Overweight among Anchorage Children: A Study of Anchorage School District Data: 1998-2003. State of Alaska Epidemiology Bulletin; 8(9). 2004.

⁸⁵ Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS-2). May 2004.

⁸⁶ Centers for Disease Control and Prevention. National Center for Health Statistics, National Health and Nutrition Examination Survey: NHANES 1999-2000. Prevalence of Overweight among U.S. Children and Adolescents.

⁸⁷ Peterson E, Utermohle C, Green T, Middaugh JP. Prevalence of Overweight among Anchorage Children: A Study of Anchorage School District Data: 1998-2003. State of Alaska Epidemiology Bulletin; 8(9). 2004.

Data from the 2003 Alaska YRBS indicated that the prevalence of overweight was significantly associated with sex; however, at-risk of overweight did not differ between males and females.⁸⁸ Although Alaskan high school males were significantly more likely to be overweight than females (13.7% and 8.1%, respectively), females were twice as likely to describe themselves as overweight and twice as likely to be trying to lose weight as males.

Many schools in Alaska do not require physical education as part of the routine curriculum and many offer unhealthy food in cafeterias or sodas from soft drink dispensers, primarily to raise money for under-funded activities. The following data from the 2003 Alaska YRBS support these findings. Approximately 18% of Alaska high school students (regardless of weight status) reported participating in daily school physical education. Less than 20% of high school students consume the recommended 5 servings of fruits and vegetables daily.⁸⁹

Note on BMI reference for weight classification: Using age and sex specific reference data from the 2000 CDC BMI-for-age growth charts, children and youth can be categorized as acceptable, underweight, at risk of overweight, or overweight. At age- and sex-specific BMI values below the 5th percentile, children may be underweight. From the 5th up to the 85th percentile, they may have an acceptable weight. From the 85th to 95th percentile, they are at risk of being overweight. At the 95th percentile and above, children and adolescents are classified as overweight.

Physical Activity

Two broad interventions exist to combat obesity: change in diet and physical activity. In addition to its effects on obesity, physical activity is also associated independently with decreased risk of cardiovascular disease, improved mental health, and improved muscle function and physical performance.

The US Centers for Disease Control and Prevention and the American Academy of Pediatrics have called for schools to be leaders in the effort to control childhood obesity by establishing policies to incorporate comprehensive daily physical education and

⁸⁸ Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS-2). May 2004.
⁸⁹ Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS-2). May 2004.

comprehensive health education for children in grades kindergarten through 12.^{90,91} In Alaska, by contrast, a single year of high school physical activity is required for graduation and there are no requirements for physical activity in earlier grades.

Indicator	Alaska 2003 [†]	Nation 2003 [^]	Healthy People 2010
Proportion of adolescents who engage in moderate physical activity for at least 30 minutes on ≥ 5 of the previous 7 days	28.2%	24.7%	35%
Proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness ≥ 3 days/week for ≥ 20 minutes/occasion	67.8%	62.6%	85%
Proportion of adolescents who participate in daily school physical education	18.2%	28.4%	50%
[†] Alaska Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS2). May 2004. [^] Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS2). May 2004.			

The proportion of Alaskan youth that engaged in moderate or vigorous physical activity for the recommended minutes/days per week was higher compared to youth nationally; but significantly lower than the HP2010 goals. The proportion of Alaskan youth that participate in daily physical education is lower than that of their peers nationally and Alaska has achieved less than half of the HP2010 goal for this measure.

More than 1 in 4 (27.9%) Alaskan high school students in grades 9-12 do not participate in a sufficient amount of physical activity and more than one-fourth reported watching 3 or more hours of television per day.⁹²

Lack of exercise among school children contributes substantially to childhood obesity and physically inactive children are more likely to become physically inactive adults.⁹³ Currently, 30% of the Alaska adult population report that they engage in regular, moderate activity while 18% engage in regular, vigorous activity.

Among Anchorage School District children, the mean body mass index does not appear to have increased from the 1998-1999 to the 2002-2003 school year. Although rates of

⁹⁰ Centers for Disease Control and Prevention. Guidelines for School and Community Programs to Promote Lifelong Physical Activity among Young People. MMWR:46(RR-6):1-36. 1997
⁹¹ American Academy of Pediatrics, Committee on Sports Medicine and Fitness and Committee on School Health: Physical Fitness and Activity in Schools. Pediatrics:105:1156-1157. May 2000.
⁹² Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS-2). May 2004.
⁹³ Alaska Department of Health and Social Services. The Burden of Overweight and Obesity in Alaska. April 2003.

overweight appear stable during this time period, approximately 1 in 6 was at risk of becoming overweight and 1 in 6 were overweight.⁹⁴

Physical Activity Disparities

In general, race, education, income, and disability status are associated with physical activity. Persons with lower levels of education and income and those with disabilities are more likely to be less active in their leisure time.

In Alaska, the 2000 BRFSS found that Alaska Natives and Asian/Pacific Islanders are less likely to report adequate physical activity than other groups. This is reflected in an increased risk of obesity among non-white children in the Anchorage school district, a disparity that is most pronounced among females.⁹⁵

Among Alaskan high school students, females were significantly more likely to participate in an insufficient amount of physical activity than males (34.8% and 21.4%, respectively). Furthermore, males were significantly more likely to be enrolled in physical education and do strength training exercises than females.⁹⁶

Note on physical activity definition: Moderate physical activity is defined as at least 30 minutes of physical activity for ≥ 5 days per week. These types of activities include fast walking, slow bicycling, skating, pushing a lawn mower, or similar activity that does not make you breathe hard or sweat. Vigorous physical activity is defined as physical activity that promotes cardio-respiratory fitness ≥ 3 days per week for ≥ 20 minutes per session. These types of activities include basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activity that makes you breathe hard and sweat.

Note on BMI reference for weight classification: Using age and sex specific reference data from the 2000 CDC BMI-for-age growth charts, children and youth can be categorized as acceptable, underweight, at risk of overweight, or overweight. At age- and sex-specific BMI values below the 5th percentile, children may be underweight. From the 5th up to the 85th percentile, they may have an acceptable weight. From the 85th to 95th percentile, they are at risk of being overweight. At the 95th percentile and above, children and adolescents are classified as overweight.

⁹⁴ Alaska Division of Public Health. Prevalence of Overweight among Anchorage Children. Epidemiology Bulletin Recommendations and Reports: 8(9). 2004.

⁹⁵ Centers for Disease Control and Prevention. Guidelines for School and Community Programs to Promote Lifelong Physical Activity among Young People. MMWR:46(RR-6):1-36. 1997

⁹⁶ Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries - United States, 2003. MMWR: 53(SS-2). May 2004.

Nutrition

Good nutrition and healthy eating habits beginning at a young age are essential for proper growth and development and establishing healthy eating behaviors that are more likely to continue into adulthood. Healthy eating behaviors help prevent childhood and adolescent health problems such as overweight, eating disorders, dental carries, and iron deficiency anemia.⁹⁷ Furthermore, good nutrition among children and adolescents helps prevent serious health problems in adulthood, including heart disease, cancer, and stroke – the three leading causes of death among adults.

Consumption of calcium, fruits and vegetables among children is inadequate. Adequate calcium intake is essential for developing peak bone mass and preventing osteoporosis. Fruits and vegetables are more expensive in Alaska, especially in rural and remote areas, and are frequently lacking in the diets of lower income children and adolescents – increasing their risk for cancer, heart disease, stroke, diabetes, heart disease and obesity.

A poor diet increases risk for heart disease, some types of cancer, stroke, type 2 diabetes and osteoporosis – as well as promoting the development of risk factors for these diseases, such as obesity, high blood pressure and high cholesterol.

Indicator	Alaska 2003†	Nation 2003^	Healthy People 2010
Percentage of high school student's grades 9-12 who consume at least 5 daily servings of fruits and vegetables	16.1%	22.0%	30%
Percentage of high school students that consume ≥3 glasses of milk per day	11.9%	17.1%	---

---This indicator is not a Healthy People objective.

† Alaska Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWWR: 53(SS2). May 2004.

^ Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWWR: 53(SS2). May 2004.

The Healthy People 2010 goal for consuming the recommended amounts of fruits and vegetables was nearly 2 times higher than Alaska's rate among high school students. Daily consumption of the recommended servings of fruits and vegetables and milk

⁹⁷ Centers for Disease Control and Prevention. Guidelines for School Health Programs to Promote Lifelong Healthy Eating. MMWR: 45(RR-9):1-33. June 1996.

among high school students are lower in Alaska compared to the Nation as a whole. Nationally, 78% of high school students do not eat the recommended five daily servings of fruits and vegetables.

Nationally, 9% of girls ages 12-15 and 11% of girls ages 16-19 have iron deficiency anemia.⁹⁸

Nutrition Disparities

Nationally, boys (ages 12-19 years) were nearly 3 times more likely to have adequate calcium intakes than girls. Nationally, only 13% of girls and 36% of boy's ages 12-19 have adequate calcium intakes.⁹⁹ Among high school students in Alaska, boys were 2 times more likely than girls to report having consumed three or more glasses of milk per day during the 7 days preceding the survey.¹⁰⁰

Iron deficiency anemia is a serious problem among Alaska Native children and other minorities in Alaska. The anemia rates among Alaska Native children ages 1-5 years are more than twice the national average.

Maltreatment

Child maltreatment can be neglect, physical abuse, sexual abuse, or emotional abuse. Abuse and neglect are two of the most serious issues facing children, with a high incidence, frequently severe with acute physical effects and substantial risk for life-long behavioral and emotional effects. Shaken-baby syndrome (SBS) is a form of child abuse that occurs when an infant is violently shaken – affecting between 1,200 and 1,600 children every year. Approximately 25%-30% of SBS victims die from their injuries, while nonfatal injuries include varying degrees of visual impairment, motor impairment, and cognitive impairment.¹⁰¹

⁹⁸ Polhamus B, Dalenius K, Thompson D, Scanlon K, Borland E, Smith B, Grummer S.L. Pediatric Nutrition Surveillance 2002 Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. 2004.

⁹⁹ Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 1999.MMWR: 49(SS-5). June 2000.

¹⁰⁰ Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS-2). May 2004.

¹⁰¹ National Center for Shaken Baby Syndrome. 2005. Website: <http://www.dontshake.com>

In Alaska, child abuse and neglect refers to episodes experienced by persons less than 18 years of age that indicate that the person’s health or welfare is harmed or threatened thereby (Alaska Statute 47.17.290). Abuse may include emotional or physical neglect or physical or sexual abuse. In-depth and comprehensive analysis of incidence and identification of high-risk groups has not been conducted in Alaska.

Indicator	Alaska 2003†	Nation 2003^	Healthy People 2010
Maltreatment (substantiated or indicated) of children less than 18 years of age rate per 1,000 population	42.2	12.4	10.3
<small>† Alaska Office of Children’s Services (OCS), 2003 Data in: U.S. Department of Health and Human Services, Administration on Children, Youth and Families. Child Maltreatment 2003. Tables 3-2: 4-1. Washington, DC: U.S. Government Printing Office. 2005.</small>			
<small>^ National Data Archive on Child Abuse and Neglect (NDACAN), Combined Aggregate File (CAF), 2003 Data in: U.S. Department of Health and Human Services, Administration on Children, Youth and Families. Child Maltreatment 2003. Tables 3-3: 4-2. Washington, DC: U.S. Government Printing Office. 2005.</small>			

The rate of substantiated or indicated maltreatment for Alaskan children is more than 4 times the Healthy People 2010 goal and nearly 3.5 times the National rate. Note that comparisons with national data are difficult because of differences in reporting definitions; however, even the most conservative estimates indicate that Alaskan child maltreatment incidence exceeds that nationally by at least 25-50%.

Studies in Alaska have not documented the extent of outcomes associated with abuse. However, hospitalization and death for infants experiencing abuse are common.¹⁰² Many children eventually are placed in foster care. Numerous previous studies have documented severe long-term effects of child abuse including increased risk of criminal behavior, unintended pregnancies, adult homelessness, substance use, suicide, and sexually transmitted diseases.^{103,104 ,105 ,106 ,107 ,108}

A variety of ancillary outcomes reflect poorly on the ability of Alaskans to protect children from harm. For example, the national standard for recurrence of maltreatment is

¹⁰² Gessner BD, Moore M, Hamilton B, Muth PT. The Incidence of Infant Physical Abuse in Alaska. *Child Abuse Negl*;28:9-23. Editorial: *Child Abuse Negl* 2004;28:7-8. 2004.
¹⁰³ Olds DL, Eckenrode J, Henderson CR Jr, et al. Long-Term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect. Fifteen-Year Follow-Up of a Randomized Trial. *JAMA*: 278:637-643. 1997.
¹⁰⁴ Dietz PM, Spitz AM, Anda RF, Williamson DF, McMahon PM, Santelli JS, Nordenberg DF, Felitti VJ, Kendrick JS. Unintended Pregnancy Among Adult Women Exposed to Abuse or Household Dysfunction During Their Childhood. *JAMA*: 282:1359-1364. 1999.
¹⁰⁵ Herman DB, Susser ES, Struening EL, Link BL. Adverse Childhood Experiences: Are They Risk Factors for Adult Homelessness? *Am J Public Health*: 87:249-255. 1997.
¹⁰⁶ Bayatpour M, Wells RD, Holford S. Physical and Sexual Abuse as Predictors of Substance Use and Suicide Among Pregnant Teenagers. *J Adolesc Health*: 13:128-132. 1992.
¹⁰⁷ Hillis SD, Anda RF, Felitti VJ, Nordenberg D, Marchbanks PA. Adverse Childhood Experiences and Sexually Transmitted Diseases in Men and Women: A Retrospective Study. *Pediatrics*: 106:E11. 2000.
¹⁰⁸ Anda RF, Felitti VJ, Chapman DP, Croft JB, Williamson DF, Santelli J, Dietz PM, Marks JS. Abused Boys, Battered Mothers, And Male Involvement In Teen Pregnancy. *Pediatrics*: 107:E19. 2001.

less than 6.1%, while Alaska reported at least 23% recurrence during 1998-2000 and the incidence of child abuse and neglect among children in foster care ranged from 13-19 per 1,000 per year compared to a national standard of 0.57 per 1,000.¹⁰⁹

During 1994-2000, 10,442 to 11,961 children less than 18 years of age had a report of harm. Of these, approximately 50-60% of reports of harm were for neglect, 25-30% for physical abuse, 8-15% for sexual abuse, and the remainder for mental injury and abandonment. The number of substantiated reports of harm has varied from 3,864 to 5,829 during the same time period, with incidences of 16 to 23 per 1,000 per year.¹¹⁰

Previous detailed studies have found that Alaska has the highest documented infant physical abuse incidences reported at 4.6 per 1000 live births, with a hospitalization or fatality incidence of 1.0 per 1,000 live births.¹¹¹ Moreover, this study determined that abuse is likely substantially underreported by providers.

Maltreatment Disparities

During 1998-2000, 50-55% of Alaskan children with a recurrence of maltreatment were Alaska Native compared to 34-36% for white children.¹¹² During a study of Alaskan infant physical abuse, the following subgroups were identified as being at particular risk: infants born as the product of a multiple gestation birth, at low birth weight, to young or less educated mothers or fathers, or to black, unmarried, or substance using mothers.¹¹³ Previous studies have documented an association between abuse and poor mental health,¹¹⁴ substance use,¹¹⁵ domestic violence,¹¹⁶ minority and low-income status,¹¹⁷ lack of a father in the household,¹¹⁸ as well as some of the risk factors identified in Alaska.¹¹⁹

¹⁰⁹ State of Alaska, Department of Health and Social Services, Office of Children's Services. Alaska Program Improvement Plan, July 2003. Website: <http://hss.state.ak.us/ocs/Publications/PIPNarrative.doc> last accessed 4 April 2005.

¹¹⁰ State of Alaska, Department of Health and Social Services, Division of Family and Youth Services. Child and Family Services Review, Statewide Assessment, April 2002. Website: http://hss.state.ak.us/ocs/Publications/Fed_Statewide_Assessment_5-6-02.doc, accessed 4 April 2005.

¹¹¹ Gessner BD, Moore M, Hamilton B, Muth PT. The Incidence of Infant Physical Abuse in Alaska. *Child Abuse Negl*;28:9-23. Editorial: *Child Abuse Negl* 2004;28:7-8. 2004.

¹¹² State of Alaska, Department of Health and Social Services, Division of Family and Youth Services. Child and Family Services Review, Statewide Assessment, April 2002. Website: http://hss.state.ak.us/ocs/Publications/Fed_Statewide_Assessment_5-6-02.doc, accessed 4 April 2005.

¹¹³ Gessner BD, Moore M, Hamilton B, Muth PT. The Incidence of Infant Physical Abuse in Alaska. *Child Abuse Negl*;28:9-23. Editorial: *Child Abuse Negl* 2004;28:7-8. 2004.

¹¹⁴ Walsh C, MacMillan H, Jamieson E. The Relationship between Parental Psychiatric Disorder and Child Physical and Sexual Abuse: Findings from the Ontario Health Supplement. *Child Abuse Negl*; 26:11-22. 2002.

¹¹⁵ Sebre S, Sprugevica I, Novotni A, Bonevski D, Pakalinskiene V, Popescu D, Turchina T, Friedrich W, Lewis O. Cross-Cultural Comparisons of Child-Reported Emotional and Physical Abuse: Rates, Risk Factors and Psychosocial Symptoms. *Child Abuse Negl*; 28:113-27. 2004.

¹¹⁶ Windham AM, Rosenberg L, Fuddy L, McFarlane E, Sia C, Duggan AK. Risk of Mother-Reported Child Abuse in the First 3 Years of Life. *Child Abuse Negl*; 28:645-67. 2004.

¹¹⁷ Holmes WC, Slap GB. Sexual Abuse of Boys: Definition, Prevalence, Correlates, Sequelae, and Management. *JAMA*; 280:1855-62. 1998.

¹¹⁸ Holmes WC, Slap GB. Sexual Abuse of Boys: Definition, Prevalence, Correlates, Sequelae, and Management. *JAMA*; 280:1855-62. 1998.

¹¹⁹ Overpeck MD, Brenner RA, Trumble AC, Trifiletti LB, Berendes HW. Risk Factors for Infant Homicide in the United States. *New Engl J Med*; 339:1211-6. 1998.

National data for 2003 suggests that age, race, and disability status of victims are associated with abuse and neglect.¹²⁰ The data showed that young children were more likely than older children to experience abuse and neglect. Children ages three and younger had a reported maltreatment rate nearly 3 times higher than children ages 16 to 17 (16.4 and 5.9 per 1,000 population, respectively). They were also the most likely age group to experience recurrence of abuse. In addition, Pacific Islander, Alaska Native or American Indian, and non-Hispanic black children (with rates of 21.4, 21.3, and 20.4 per 1,000, respectively) had higher rates of child maltreatment than non-Hispanic white, Hispanic, or Asian children – with rates of 11.0, 9.9, and 2.7 per 1,000, respectively. Furthermore, child victims that were reported with a disability were 51% more likely to experience recurrence of abuse than children without a disability.

Research has shown that abuse and neglect are more common in poor and extremely poor families than in families with higher incomes.¹²¹

Overall Mortality

Indicator	Alaska 2001-03 [†]	Nation 2002 [^]	Healthy People 2010
Overall Mortality			
Child mortality, ages 1-4 years rate per 100,000 population	41.7	31.2	18.6
Child mortality, ages 5-9 years rate per 100,000 population	16.6	15.2	12.3
Adolescent mortality, ages 10-14 years rate per 100,000 population	41.7	19.5	16.8
Teen mortality, ages 15-19 years rate per 100,000 population	100	67.8	39.8
<small>[†] Alaska Bureau of Vital Statistics, 2001-2003 Data. DHSS, DPH. January 2005. [^] Anderson RN, Smith BL. Deaths: Leading Causes for 2002. National Vital Statistics Reports: 53(17). Hyattsville, Maryland: National Center for Health Statistics. 2005.</small>			

Alaska’s mortality rate for children ages 1-4 years is 34% higher than the national rate and almost 2 times the HP2010 target, while the mortality rate for children ages 5-9 years is 9% higher than the national rate and almost 1.3 times the HP2010 target.

¹²⁰ U.S. Department of Health and Human Services, Administration on Children, Youth and Families. Child Maltreatment 2003. Tables 3-3; 4-2. Washington, DC: U.S. Government Printing Office. 2005.

¹²¹ National Research Council. Understanding Abuse and Neglect. Washington, DC: National Academy Press. 1993.

Alaska's adolescent mortality rate is more than 2 times the national rate and almost 2.5 times the HP2010 target. Alaska's teen mortality is 47% higher than the national rate and 2.5 times the HP2010 target.

Children

The leading manner of death for Alaskan children is unintentional injury, which accounted for 49.5% of deaths to children ages 1-4 years and 56.8% of deaths to children ages 5-9 years over the last decade.¹²² After unintentional injury, the second leading manner of death for Alaskan children was homicide.

Adolescents

The leading manner of death among Alaskan adolescents over the last decade was unintentional injury, accounting for 50% of adolescent deaths, while the second leading manner of death was suicide, which accounted for nearly 10% of adolescent mortality.¹²³

Teens

After unintentional injury, suicide and homicide are the most frequent manner of death for Alaskans ages 15 - 19 years. Alaska's suicide rate among teenagers is the highest in the Nation and has remained unchanged over the last decade.⁴ During 1994-2003, unintentional injury accounted for 42% of deaths this age group and the second leading manner of death, suicide, accounted for 32% of deaths. During 2001-2003, 49 Alaskan teens ages 15-19 committed suicide – a rate of 31 per 100,000 population. Suicide attempts were the most common cause of non-fatal hospitalizations among Alaskan teens (ages 15-19 years).¹²⁴

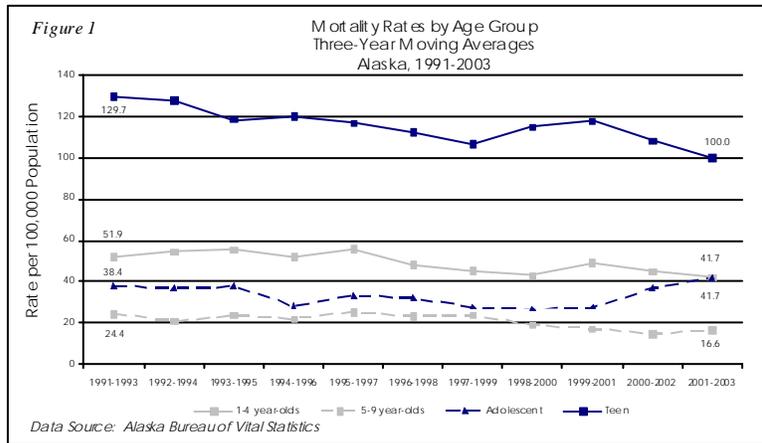
Over the last decade, Alaskan teen homicide rates declined by more than 50%. Furthermore, in 1998 - 2000, Alaska's homicide rate for ages 15-19 years was 1.7 times lower than the national rate for 2000.¹²⁵

¹²² Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹²³ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹²⁴ Alaska Trauma Registry, 1997-2001 Data. DHSS, DPH. January 2005.

¹²⁵ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. June 2003.



Child Mortality Disparities

During 1994-2003, Alaskan children ages 1-4 were 2.4 times as likely as children ages 5-9 to die due to assault.¹²⁶

Adolescent Mortality Disparities

During 1994-2003, male adolescents were more than 3 times as likely as female adolescents to die from suicide and nearly 2 times as likely to die of assault.¹²⁷

Teen Mortality Disparities

During 1998 - 2000, intentional injury mortality among teens ages 15-19 years in Alaska (45.8 per 100,000 population) was almost 3 times higher than the 2000 national rate (17.8 per 100,000).¹²⁸

Male teens in Alaska are almost 4 times more likely to commit suicide and 3.2 times more likely to be a victim of homicide than females in the same age group. Alaska Native males are at greatest risk. The suicide rate for Alaska Native males ages 15-19 years during the period 1991 – 1999 (187 per 100,000) was 6 times higher than the rate for non-Native males.¹²⁹

¹²⁶ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹²⁷ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹²⁸ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. June 2003.

¹²⁹ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. June 2003.

Unintentional Injury: Morbidity and Mortality

In Alaska and in the United States, the leading manner of death among children, regardless of age or sex, is unintentional injury. The most common causes of unintentional injury deaths among children are motor vehicle crashes, drowning, and fires. Over the last decade, child mortality rates for unintentional injury declined in Alaska and in the nation. With over one-half of all child mortality attributable to unintentional injury, the majority of deaths to Alaskan children could be prevented.

Falls are a leading cause of traumatic brain injury (TBI) among infants and children. Degree of disability resulting from a TBI can vary depending on force of impact and area of the brain that has been injured. A TBI may result in slight learning disabilities, retinal damage that causes loss of vision, mental retardation, cerebral palsy, or death.¹³⁰ During 1997-2001, falls were the leading cause of non-fatal hospitalizations among 1-4 year olds, 5-9 year olds, and 10-14 year olds in Alaska.¹³¹

According to the CDC, more than 40% of children that receive emergency room care for non-fatal submersion require hospitalization and are at risk of brain damage which can result in long-term disabilities ranging from memory problems and learning disabilities to the permanent loss of basic functioning.¹³²

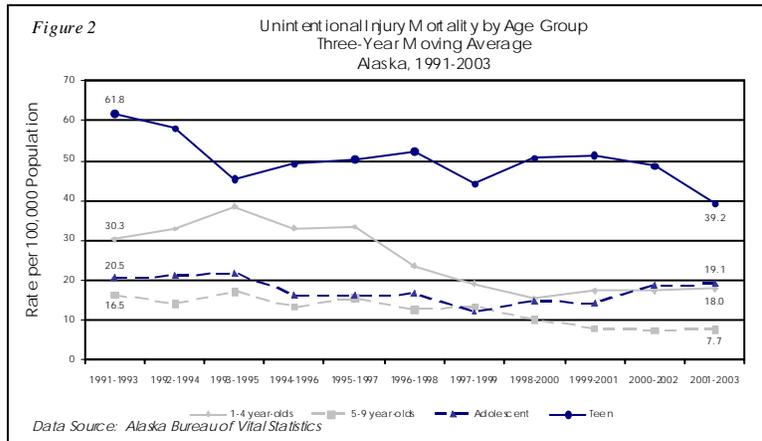
Indicator	Alaska 2001-03 [†]	Nation 2002 [*]
Unintentional Injury		
Child mortality, ages 1-4 years, due to unintentional injury rate per 100,000 population	18.0	10.5
Child mortality, ages 5-9 years, due to unintentional injury rate per 100,000 population	7.7	5.9
Adolescent mortality, ages 10-14 years, due to unintentional injury rate per 100,000 population	19.1	7.3
Teen mortality, ages 15-19 years, due to unintentional injury rate per 100,000 population	39.2	35.0
<small>[†] Alaska Bureau of Vital Statistics, 2001-2003 Data. DHSS, DPH. January 2005.</small>		
<small>[*] Anderson RN, Smith BL. Deaths: Leading Causes for 2002. National Vital Statistics Reports: 53(17). Hyattsville, Maryland: National Center for Health Statistics. 2005.</small>		

¹³⁰ NIH. National Institute of Neurological Disorders and Stroke.

¹³¹ Alaska Trauma Registry, 1997-2001 Data. DHSS, DPH. January 2005.

¹³² National Center for Injury Prevention and Control. Centers for Disease Control and Prevention. Water-Related Injuries Fact Sheet. <http://www.cdc.gov/ncipc/factsheets/drown.htm> Accessed Jan 2005.

Although rates of unintentional injury mortality among teens are similar in Alaska and the Nation, unintentional injury mortality rates are 71% higher among 1-4 year-olds and 31% higher among 5-9 year-olds compared to national rates and among adolescents ages 10-14 years, Alaska's unintentional injury mortality rate is 2.6 times the national rate.



Children

During 1994-2003, the most common cause of unintentional injury mortality among Alaskan children was due to motor vehicle accidents. The second and third most common causes of unintentional injury mortality for Alaskan children were drowning and exposure to smoke, fire and flames.¹³³

Adolescents

The leading cause of unintentional injury deaths to Alaskan adolescents over the last decade was motor vehicle crashes, accounting for 42% of unintentional injury deaths among adolescents. The second leading cause of adolescent mortality due to unintentional injury was drowning, accounting for 15% of deaths among Alaskan adolescents.¹³⁴

Teens

¹³³ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹³⁴ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

Teenagers in Alaska and the nation have higher unintentional injury mortality rates than any other age group. Nationally, unintentional injury accounts for 52% of deaths among teens ages 15 - 19 years with the leading cause of death being motor vehicle crashes. The leading cause of unintentional injury deaths to Alaskan teens over the last decade was motor vehicle crashes, accounting for more than one-half of all unintentional injury deaths and nearly one-fourth of overall deaths among teens ages 15 - 19 years. The second leading cause was drowning.¹³⁵

Child Unintentional Injury Mortality Disparities

During the 10-year period 1994-2003, Alaskan children ages 1-4 years were more likely to die from the following cause-specific unintentional in mortality compared to children ages 5-9 years: drowning was 1.7 times higher, death from exposure to smoke, fire and flames was 3 times higher, and death due to motor vehicle crashes was 2 times higher.¹³⁶

Adolescent Unintentional Injury Mortality Disparities

During 1994-2003, male adolescents were 1.6 times more likely to die from unintentional injuries than females. Of unintentional injury deaths, they were 1.3 times as likely to die from motor vehicle crashes and 6 times as likely to die as a result of drowning compared to females in the same age group.¹³⁷

Teen Unintentional Injury Mortality Disparities

Unintentional injury mortality is twice as high among teen males as females. In 2001-2003, Alaska's unintentional injury mortality rates were 52.6 and 24.9 per 100,000 population for males and females in this age group, respectively.¹³⁸

Over the last decade, Alaskan males in the 15-19 year-old age group were almost 2.6 times more likely to die from unintentional injuries than females. Of these unintentional injury deaths, male teens in Alaska were 2.1 times more likely to die from motor vehicle

¹³⁵ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹³⁶ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹³⁷ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹³⁸ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

crashes and more than 20 times more likely to die as a result of drowning compared to females in the same age group.¹³⁹

Teen Pregnancy and Sexual Behavior

There are several adverse outcomes that can affect both the mother and child of an adolescent pregnancy. Compared to adult mothers, the incidence of low birth weight is 2 times higher, neonatal mortality rate is 3 times higher, and maternal mortality is 2 times higher among teen mothers. Furthermore, teen mothers are more likely to experience poor maternal weight gain, prematurity, pregnancy induced hypertension, anemia, and sexually transmitted diseases.¹⁴⁰ Because adolescents and young adults are more likely to have multiple sex partners and engage in risky behaviors associated with sexually transmitted diseases (STDs), they are the highest at-risk groups for acquiring STDs.¹⁴¹ In addition to poor pregnancy outcomes, adolescent pregnancy is associated with interruption with education, poverty, limited vocational opportunities, single parent household, and repeat pregnancy.¹⁴²

Indicator	Alaska 2003	Nation 2003	Healthy People 2010
Pregnancy rate among adolescents ages 15-17 rate per 1,000 population	29.5 [†]	53.5 [^] (2000)	43
Proportion of high school students who abstain from sexual intercourse or use condoms, if they are currently sexually active	89.7% [‡]	87.5% [§]	95%

[†] Alaska Bureau of Vital Statistics, 2003 Data. DHSS, DPH. January 2005.

[^] Alaska Youth Risk Behavior Survey, 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS-2). May 2004.

[^] Ventura SJ, Abma JC, Mosher WD, Henshaw S. Estimated Pregnancy Rates for the United States, 1999-2000: An Update. National Vital Statistics Report (NVSr): 52(23):Table 1. Hyattsville, Maryland: National Center for Health Statistics (NCHS). 2004.

[‡] Youth Risk Behavior Survey, 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR: 53(SS-2). May 2004.

The pregnancy rate among Alaskan adolescents ages 15-17 is significantly lower than the Healthy People 2010 (HP2010) goal and is 45% lower than the national rate. With nearly 9 in 10 Alaskan high school students having reported either abstaining from sexual intercourse or using a condom if they were sexually active, the 2003 rate for this indicator

¹³⁹ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.

¹⁴⁰ American Academy of Pediatrics. Committee on Adolescence. Adolescent Pregnancy – Current Trends and Issues: 1998. Pediatrics; 103(2). February 1999.

¹⁴¹ Alaska Division of Public Health, Section of Epidemiology. Prevention and Control of Gonorrhea and Chlamydia in Alaska. Epidemiology Bulletin, Recommendations and Reports; 3(5). September 1999.

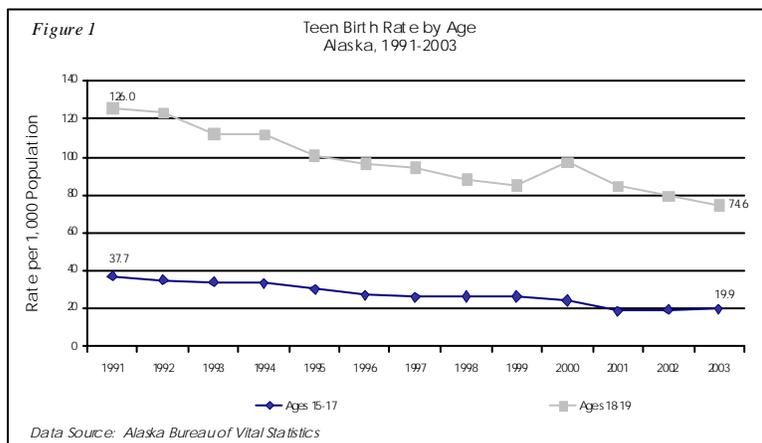
¹⁴² American Academy of Pediatrics. Committee on Adolescence. Adolescent Pregnancy – Current Trends and Issues: 1998. Pediatrics; 103(2). February 1999.

is not significantly different among adolescents in grades 9 through 12 in the Nation, although remaining slightly lower than the HP2010 goal of 95%.

Pregnancy

Since 1991, the national birth rate among teens ages 15-17 years and 18-19 years has been declining and, in 2003, reached record lows of 22.4 and 70.8 births per 1,000, respectively. Alaska has consistently exceeded the Nation in the decline of teen births among 15-17 year-olds; but in spite of significant declines among older teens, the birth rate for 18-19 year-olds has remained higher than the national rate.

Over the last decade, the birth rates for Alaskan teens ages 15-17 years and 18-19 years have declined significantly. The overall Alaskan teen birth rate (ages 15-19 years) declined nearly 43% from 1991-2003. The birth rate among younger teens (15-17 years) declined 41%, from 37.7 per 1,000 population in 1991 to 19.9 in 2003. Although there was a statistically significant decline in the birth rate for 18-19 year-olds over the decade, there was a sharp increase in the birth rate for older teens from 1999-2000, rising from 85 to 97.3 per 1,000. However, since that time there has been a steady decline and in 2003 reached a record low of 74.6 per 1,000. (Figure 1)



Sexual Activity

Results from the 2003 Alaska Youth Risk Behavior Survey (YRBS) indicated that some indicators of risky sexual behaviors, including ever having sexual intercourse and four or

more sex partners, among Alaskan high school students (grades 9 through 12) were significantly lower than 1995 results.¹⁴³ The percentage of Alaskan high school students that reported having ever had sexual intercourse was significantly lower in 2003 compared to 1995 – 39.6% and 47.2%, respectively. Among these students, 12.1% had four or more sex partners during their lifetime – significantly lower than 1995 (17.1%). Among currently sexually active (reported having sexual intercourse within the last 3 months) Alaskan high school students, 62.3% reported using a condom during their last sexual intercourse – a significant increase from 53.7% in 1995. In addition, one-fourth (25.5%) reported having drunk alcohol or used drugs before their last sexual intercourse – there has been no decrease.

Teen Pregnancy Disparities

In 2003, 70% of infants born to Alaskan teen mothers were among those ages 18-19 years and the pregnancy rate was 3.3 times that of 15-17 year olds.¹⁴⁴

From 1991-1999, both the Alaska Native and white teen birth rates have significantly declined in Alaska (29% and 41%, respectively), but there is still a large racial disparity. In 1999, the Alaska Native teen birth rate was 2.5 times that of white teens.¹⁴⁵

Sexual Behavior Disparities

Among Alaskan high school students, white adolescents were most likely to report never having had sexual intercourse. The percentage of white high school students that never had sexual intercourse was nearly 30% higher than Alaska Natives – 63.1% and 49.7%, respectively.¹⁴⁶

The percentage of Alaskan high school students that reported ever having had sexual intercourse increased significantly by grade. In 2003, 60% of 12th graders had had sexual intercourse compared to 22.4% of 9th graders.¹⁴⁷ Furthermore, Alaskan 12th graders were more likely to had four or more sex partners during their lifetime (20%), compared to 9th,

¹⁴³ Alaska Youth Risk Behavior Survey (YRBS) 2003 Data in: Centers for Disease Control and Prevention. Youth Online: Comprehensive Results. Accessed April 2005.

¹⁴⁴ Alaska Bureau of Vital Statistics, 2003 Data. DHSS, DPH. January 2005.

¹⁴⁵ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. June 2003.

¹⁴⁶ Alaska Youth Risk Behavior Survey (YRBS) 2003 Data. DHSS, DPH. August 2004.

¹⁴⁷ Alaska Youth Risk Behavior Survey (YRBS) 2003 Data in: Centers for Disease Control and Prevention. Youth Online: Comprehensive Results. Accessed April 2005.

10th, and 11th graders (5.5%, 9.2%, and 15.5%, respectively). Among currently active Alaskan high school students, females were less likely to have used a condom during their last sexual intercourse compared to males – 58.4% and 66.2%, respectively.¹⁴⁸

Sexually Transmitted Diseases and HIV

The Centers for Disease Control and Prevention estimate that 18.9 million new sexually transmitted diseases (STDs) occur each year in the United States and that more than 65 million people are living with an incurable STD.¹⁴⁹ Chlamydia and gonorrhea were the most frequently reported infectious diseases in 2003.¹⁵⁰ Chlamydia is the most frequently reported bacterial STD in the Nation. More than 50% of all preventable infertility among women is a result of infection with chlamydia and three-quarters of all women infected have no symptoms. Furthermore, infected women are up to 5 times more likely to become infected with HIV, if exposed.¹⁵¹ STDs, mainly untreated chlamydia and gonorrhea, are the main preventable cause of pelvic inflammatory disease (PID). PID can lead to serious consequences including infertility, pelvic abscess and chronic pelvic pain.^{152,153} Pelvic inflammatory disease (PID) also increases the risk of ectopic pregnancy. Among women with PID, 9% will have an ectopic pregnancy due to tubal scarring.

Indicator	Alaska 2003 [†]	Nation 2003 [^]	Healthy People 2010
Proportion chlamydia infections among females ages 15-24 attending family planning clinics	6.0%	6.4%	3.0%
Proportion chlamydia infections among females ages 15-24 attending STD clinics	7.5%	14.1%	3.0%
Proportion chlamydia infections among males ages 15-24 attending STD clinics	DNA	19.3%	3.0%
DNA: Data Not Analyzed.			
[†] Alaska Sexually Transmitted Disease Surveillance, 2003 Data in: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004. [^] Sexually Transmitted Disease Surveillance, 2003 Data in: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.			

¹⁴⁸ Alaska Youth Risk Behavior Survey, 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWRR: 53(SS-2). May 2004.

¹⁴⁹ Healthy People 2010. U.S. Department of Health and Human Services. Progress Review: Sexually Transmitted Diseases. July 2004.

¹⁵⁰ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

¹⁵¹ Centers for Disease Control and Prevention. Chlamydia Fact Sheet. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. May 2004.

¹⁵² Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

¹⁵³ State of Alaska, DHSS, DPH, Section of Epidemiology. Pelvic Inflammatory Disease (PID): Diagnostic Suspicion and Early Treatment Lessen Complications. Bulletin 7(3), October 2003.

The proportion of chlamydia infections among females ages 15 to 24 years attending family planning and STD clinics are 2 and 2.5 times the HP2010 goal, respectively.

From 1999 to 2003, the rate of reported gonorrhea cases more than doubled and the rate for reported cases of chlamydia increased by more than 75% among Alaska women.¹⁵⁴ Part of this increase may be attributed to the expansion of chlamydia screening activities.

STD and HIV Disparities

In 2000, approximately half (48%) of new STD cases in the U.S. were among people ages 15-24 years.¹⁵⁵

National surveillance data for 2003 indicated that sex, age, and race and were associated with higher incidence of STDs.¹⁵⁶ Women were 3 times as likely to have chlamydia, and more than 2 times as likely to have gonorrhea compared to men. Women ages 15-19 and 20-24 were significantly more likely to be infected with STDs than other age groups. Furthermore, the average age for a woman infected with chlamydia was lower than the average age for a man.

Chlamydial infection in Alaska was significantly higher among Alaska Natives – with a reported rate of 1,196 per 100,000, accounting for 46% of chlamydia cases while comprising only 18% of the population.¹⁵⁷

Like the Nation, the trend of new HIV infection among Alaskan women is increasing faster than among men.¹⁵⁸

Tobacco Use, Alcohol Use, Drug Use

According to the Surgeon General, smokeless tobacco use is associated with oral cancer and oral leukoplakia. Studies have shown that it also increases the risk of tooth loss and

¹⁵⁴ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

¹⁵⁵ Sexually Transmitted Disease Surveillance, 2003 Data in : Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

¹⁵⁶ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

¹⁵⁷ State of Alaska, DHSS, DPH, Section of Epidemiology. Pelvic Inflammatory Disease (PID): Diagnostic Suspicion and Early Treatment Lessen Complications. Bulletin 7(3), October 2003.

¹⁵⁸ American College of Obstetricians and Gynecologists (ACOG). Sexually Transmitted Diseases in Adolescents. Committee Opinion No. 301. October 2004.

periodontal disease. Furthermore, smoking by children and adolescents is related to impaired lung growth, chronic coughing, and wheezing. Active smoking by young people is associated with significant health problems during childhood and adolescence and with increased risk factors for health problems in adulthood. Cigarette smoking during adolescence appears to reduce the rate of lung growth and the level of maximum lung function that can be achieved. Young smokers are likely to be less physically fit than young nonsmokers; fitness levels are inversely related to the duration and the intensity of smoking. Adolescent smokers report that they are significantly more likely than their nonsmoking peers to experience shortness of breath, coughing spells, phlegm production, wheezing, and overall diminished physical health. Cigarette smoking during childhood and adolescence poses a clear risk for respiratory symptoms and problems during adolescence; these health problems are risk factors for other chronic conditions in adulthood, including chronic obstructive pulmonary disease.¹⁵⁹

Violence, risky sexual behavior that can lead to unintended pregnancy and sexually transmitted diseases, and school failure have been shown to be associated with heavy drinking and drug abuse among youth. Furthermore, according to the Surgeon General, 40% of children who begin using alcohol before age 13 will eventually become alcoholics – according to the Alaska Youth Risk Behavior Survey, nearly 1 in 4 (23.2%) Alaskan high school students (grades 9-12) had their first drink of alcohol before age 13.

¹⁵⁹ U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.

Indicator	Alaska 2003	Nation 2003	Healthy People 2010
Tobacco Use [†]			
Percent of adolescents grades 9 through 12 that used tobacco products in the past month	24.8%	27.5%	21%
Percent of adolescents grades 9 through 12 that smoked cigarettes in the past month	19.2%	21.9%	16%
Percent of adolescents grades 9 through 12 that used spit tobacco in the past month	11.2	6.7%	1%
Percent of adolescents grades 9 through 12 that smoked cigars in the past month	7.8%	14.8%	8%
Percent of adolescents grades 9 through 12 that made tobacco use cessation attempts	69.5%	60.1%	84%
Alcohol Use [^]			
Percent of adolescents ages 12-17 years that have not drank alcohol in the past 30 days	84.1%	82.9%	89%
Percent of adolescents ages 12-17 years that have binged (≥5 alcoholic beverages within a couple of hours)	11.0%	10.7%	2%
Drug Use [^]			
Percent of adolescents ages 12-17 that have used marijuana on one or more of the past 30 days	9.4%	8.2%	0.7%
Percent of adolescents ages 12-17 years that have not used illicit drugs in the past 30 days	86.7%	88.6%	89%
<small>[†] Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWWR: 53(SS-2). May 2004.</small>			
<small>[^] National Survey on Drug Use and Health, 2002-2003. SAMHSA, Office of Applied Studies. (2004). Results from the 2002-2003 National Survey on Drug Use and Health: National and State findings. Rockville, MD: Substance Abuse and Mental Health Services Administration.</small>			

The percent of Alaskan high school students that used any tobacco and the percent that smoked cigarettes products in the past month are both lower compared to high school students in the Nation; however, Alaska has still not achieved the Healthy People 2010 (HP2010) goals for either.

Alaskan high school students have achieved the HP2010 goal to reduce the percent that smoked cigars in the past month to less than 8%; the prevalence for Alaska was nearly half that of the Nation. Although 7 in 10 Alaskan high school students that smoke have tried to quit, Alaska has not achieved the HP2010 goal of increasing the percentage of adolescents that make tobacco cessation attempts to 84%.

Binge drinking among Alaskans ages 12-17 years is higher than that among national adolescents of the same age group and significantly higher than the HP2010 goal.

Alaskan adolescents ages 12-17 years were not as likely to abstain from using illicit drugs in the past 30 days as adolescents of the same age group in the Nation. Alaska has not yet achieved the HP2010 goal for this measure. Marijuana use is higher among Alaskan adolescents (ages 12-17 years) compared to the Nation and is 13.4 times higher than the HP2010 goal.

Tobacco

The prevalence of abstaining from cigarette smoking (ever tried smoking, even one or two puffs) was 56.1% in 2003 compared to 72.1% in 1995 – a decrease of 22%. The percent of high school students that reported that they smoked cigarettes on one or more of the past 30 days decreased from 36.5% in 1995 to 19.2% in 2002 – a decrease of 47%.

Alcohol

The percentage of students that reported having had their first drink of alcohol before age 13 decreased 23% from 1995 to 2003 (36.7% and 23.2%, respectively). Although nearly 40% of Alaskan high school students were current drinkers at the time of the survey (i.e., at least one drink of alcohol on one or more of the past 30 days) the prevalence was significantly lower than it was in 1995 (47.5%) – a decrease of 19%.

Illicit Drug

More than 1 in 4 (28.4%) high school students reported that they were offered, sold, or given an illegal drug on school property by someone during the past 12 months. This was a significant decrease from 34.1% in 1995. The prevalence of reported current marijuana use and current marijuana use on school property among high school students in Alaska was significantly lower in 2003 compared to 1995 – decreases of 17% and nearly 30%, respectively. There was no change in lifetime use or current use of cocaine (includes powder, crack, and freebase) between 1995 and 2003 among Alaskan high school students.

Tobacco Disparities

Among Alaskan high school students, males were more than 2 times as likely to have used chew tobacco, dip, or snuff on one or more of the past 30 days as females – 15.6% and 6.2%, respectively. Furthermore, males were 3.3 times as likely to have smoked cigars, cigarillos, or little cigars on one or more of the past 30 days as females – 11.7% and 35%, respectively.

Illicit Drug Disparities

Among Alaskan high school students, males were 1.6 times more likely to have smoked marijuana before age 13 compared to females – 15.8% and 9.9%, respectively. They were also more likely to have been offered, sold, or given any illegal drug on school property by someone during the past 12 months.

Alaskan high school females (10.4%) had a slightly higher prevalence of having ever sniffed glue, breathed aerosol spray cans, inhaled paint or sprays to get high during their lifetime compared to males (9.9%); however, Alaskan high school males were nearly 2 times more likely as females to report having done this activity on one or more of the past 30 days – 3.0% and 1.7%, respectively.

Youth Violence

Victims of violence can suffer psychological trauma, physical injuries, disability, and death. During 1997-2001, assault was the 4th leading cause of non-fatal hospitalization among Alaskan teens ages 15-19 and it was the 3rd leading cause of death among this age group over the last decade with a rate of 10.3 per 100,000 population. Assault was the 3rd leading cause of death among Alaskan children ages 10-14 years.

Indicator	Alaska 2003 [†]	Nation 2003 [‡]	Healthy People 2010
Percent of adolescents grades 9 through 12 that were in a physical fight	27.1%	33.0%	32%
Percent of adolescents grades 9 through 12 that carried a weapon on school property	7.1%	6.1%	4.9%
<small>[†] Alaska Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWRR: 53(SS-2). May 2004.</small>			
<small>[‡] Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWRR: 53(SS-2). May 2004.</small>			

Alaska has met the Healthy People 2010 goal to reduce the percentage of high school students that were in a physical fight to less than 32%. However, the percentage of Alaskan high school students that carried a weapon on school property was nearly 1.5 times higher than the HP2010 goal, and slightly higher than the national average.

Nearly 1 in 5 (18.4%) Alaskan high school students carried a weapon (such as a gun, knife, or club) and 6.7% carried a gun on one or more of the past 30 days – compared to 1995 there has been a significant decline in both of these behaviors, with a prevalence of 23.5% and 9.1%, respectively. Among Alaskan high school students, 8.1% were threatened or injured with a weapon on school property on one or more days during the last year and 4.1% did not go to school on one or more days during the last 30 days because they didn't feel safe.

More than 1 in 10 (10.8%) Alaskan high school students were hit, slapped, or physically hurt by their boyfriend or girlfriend one or more times in the past 12 months – the prevalence was similar for males (10.5%) and females (10.9%).

More than one-third (34.3%) of Alaskan high school students had property (such as car, clothing, or books) stolen or damaged on school property during the past 12 months.

Youth Violence Disparities

Among Alaskan high school students, males were nearly 5 times more likely to have carried a weapon, (such as a gun, knife, or club) on one or more of the past 30 days than girls (29.8% and 6.3%, respectively) and they were 7 times more likely to have carried a weapon on school property (11.8% and 1.7%, respectively).

Male high school students were significantly more likely to have been in a physical fight one or more times during the past 12 months compared to girls (33.9% and 19.5%, respectively).

II. Needs Assessment

Section B

3. Assessment of Needs of the MCH Population Group

C. Children with Special Health Care Needs

As part of the statewide Five-Year Needs Assessment, WCFH identified the following issues as areas that needed to be fully assessed, analyzed, and described in order to identify and develop the State Priority Needs for Alaska. Several of these issues were presented in both the Child and CSHCN population focus groups for review. Refer to Section B 3 B, Child Health, for topics that were addressed in both of these populations.

1. Special Issues and Characteristics of CSHCN
2. Oral Health among CSHCN
3. Access to Health Care (refer to Section B3_B)
4. Early Identification and Intervention (refer to Section B3_B)
5. Mental Health (refer to Section B3_B)
6. Asthma (refer to Section B3_B)
7. Cancer (refer to Section B3_B)
8. Diabetes (refer to Section B3_B)
9. Obesity (refer to Section B3_B)
10. Fetal Alcohol Syndrome (FAS) and Other Effects of Prenatal Alcohol Exposure (refer to Section B3_A)

Characteristics and Issues of CSHCN

Data for this section is a summary of findings from the 2001 National Survey of Children with Special Health Care Needs.¹

The National Survey of Children with Special Health Care Needs (CSHCN) found that 12.8% of children in the United States ages 0-17 years have special health care needs.¹ Approximately 23% of these children are usually or always affected in their activities by their conditions, 37% are sometimes affected, and 39% are never affected in their activities. More than 1 in 10 (11.6%) CSHCN were uninsured at some point during the year prior to the survey.

¹ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook 2001. Rockville, Maryland: U.S. Department of Health and Human Services, 2004.

Approximately 20% of parents of Alaskan CSHCN ranked their child’s condition as ‘severe’ or ‘most severe’, 51.2% ranked their child’s condition as ‘moderate’, and 28.2% ranked their child’s condition as ‘mild’. In addition, more than 1 in 4 (26.9%) of Alaskan CSHCN have health conditions that consistently and often greatly affect their daily activities and 15.6% had 11 or more days of missed school days due to illness.

More than 1 in 5 (21.3%) parents of Alaskan CSHCN reported that the specific information they needed about their child’s health or health care (such as the causes of any health problems, how to care for the child now, and what changes to expect in the future) were never or only sometimes provided by their doctors or health care providers.

In 2003 an Alaska CSHCN Summit was held to bring together families, health care providers, health care administrators, health care advocates, administrative personnel and community leaders so they could share their strategies for future work with CSHCN. In addition, the All Alaska Pediatric Partnership (AAPP) is a network of children’s health services providers that works to maintain and improve the health of all of Alaska’s children. It acts as a catalyst for the development and implementation of collaborative programs.

Indicator	Alaska 2001	Nation 2001	Healthy People 2010
The percent of CSHCN (ages 0-17 years) that receive coordinated, ongoing, comprehensive care within a medical home	46.4	52.7	Dev.

The percent of children with special health care needs in Alaska that have a medical home is slightly lower than the Nation. The Healthy People 2010 objective is developmental and no target has been set at this time.

Alaska’s CSHCN program has been taking part in nationally funded efforts to assure access to a medical home. An effort has been made to identify, access and connect with adequate sources of affordable health insurance. Early and continuous screening efforts begin with newborn metabolic screening and hearing screening; screenings and diagnosis may continue through Early Periodic Screening and Diagnostic Testing (EPSDT) for

children from birth through age five. It is a priority to organize access to community-based services so that families can easily find and use them. Another priority is expansion of services to cover children as they transition from youth to adulthood. Furthermore, families of CSHCN serve on local, state and national boards to bring light to their challenges and to partner in decision making.

Health Insurance Coverage

At the time of the survey, 8.3% of Alaskan CSHCN were currently uninsured and 13.9% were without insurance at some point during the past year. Among Alaskan CSHCN that were insured, 56.4% had private insurance only, 23.6% had public insurance only (Medicaid, SCHIP, Title V, or other public insurance), and 11.6% had a combination of public and private insurance. However, one-third that were currently insured did not have adequate coverage.

Access to Care

Among Alaskan CSHCN, 1 in 5 have one or more unmet needs for specific health care services. Of families who needed respite care, genetic counseling and/or mental health services, 1 in 5 families did not get all the care they needed.

Nearly 1 in 4 (23.3%) of Alaskan CSHCN needed specialty care and had a problem getting a referral, 8.1% did not have a usual source of care (or relied on the emergency room), and 18.1% did not have a personal doctor or nurse.

Impact on Family

Among families of Alaskan CSHCN, 21.3% experienced financial problems due to their child's health needs, nearly one-third (31.7%) had health needs that caused family members to cut back or stop working, and 15.6% spent 11 or more hours per week providing and/or coordinating health care for their child.

Disparities

Among Alaskan families of CSHCN, low-income families were more likely to spend more time providing, arranging, or coordinating care for their child each week and were more likely to have stopped working due to their child's needs compared to higher-income. The poorest families, 0-99% of the Federal Poverty Level (FPL), spend the most hours per week providing or coordinating care for their child - 38.7% spend 11 or more hours per week compared to 11.8% for families at 200-399% FPL and 10.6% for those at or above 400% FPL.

Oral Health

The oral health of CSHCN may be affected negatively by the medications (medications decreasing saliva flow), therapies, or special diets they require, or by their difficulty with cleaning teeth thoroughly on a daily basis.² Children with disabilities often present unique problems are at increased risk for oral infections, delays in tooth eruption, periodontal disease, enamel irregularities, and moderate-to-severe malocclusion (poor bite).³ Children with cleft lip/palate are at increased risk for dental caries, gingivitis, cross bite, and dental crowding.⁴ Conditions that may lead to special health care needs include Down syndrome, cleft lip/palate and other craniofacial defects, cerebral palsy, learning and developmental disabilities, emotional disturbances, vision and hearing impairments, diabetes, asthma, genetic and hereditary disorders with orofacial defects, or HIV infection.

Alaska specific data on the prevalence dental needs for children and adolescents with special health care needs is limited. However, national data from oral assessments of U.S. Special Olympics athletes in 1999 (all ages), based on an extremely conservative protocol (visual assessment without use of mouth mirrors, dental explorers or x-rays), found 12.9% of the athletes reported some form of oral pain, 39% demonstrated signs of gingival infection, and nearly 25% had untreated dental decay.⁵

² Casamassimo P, ed. *Bright Futures in Practice: Oral Health*. Arlington, VA: National Center for Education in Maternal Child Health. 1996.

³ Isman B, Newton RN. Oral Conditions in Young Children with Developmental Disabilities: Addressing Common Parental Concerns. *Dental Hygiene News*; 10(1):5-6. 1997.

⁴ Mitchell JC, Wood RJ. Management of Cleft Lip and Palate in Primary Care. *Journal of Pediatric Health Care*; 14(1):13-19. 2000.

⁵ U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. 2000.

Medicaid/Denali KidCare is the dental coverage source for many of the children and adolescents with special health care needs. Only about 1 in 3 children enrolled in Medicaid/Denali KidCare receive an annual dental service.⁶ Furthermore, many dentists are not accepting new Medicaid clients in their practices and the state has only 14 pediatric dental specialists. Of Alaskan CSHCN in 2001, nearly 80% needed dental care, including check-ups in the past 12 months of the survey. Of these, 11.5% did not receive the dental care they needed.⁷

For the 5-year period 1998-2002, the rate of oral cleft among Alaskan children was 3.1 per 1,000 population⁸ – approximately 3 times higher than the national rate of 1.2 per 1,000 population.⁹ The Alaska Maternal Child Health Block Grant coordinates services for treatment of cleft lip and/or cleft palate through regional specialty clinics. In state fiscal year 2004, 123 children received corrective services through these specialty clinics.¹⁰

Oral Health Disparities

From 1998-2002, the 5-year rate of oral cleft was nearly 2 times as high among Alaska Native children as white children – 5.0 and 2.7 per 1,000 population, respectively.¹¹

⁶ Alaska Department of Health and Social Services. Medicaid Program data. CMS416 utilization reports.

⁷ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook 2001. Rockville, Maryland: U.S. Department of Health and Human Services. 2004.

⁸ Alaska Department of Health and Social Services. Unpublished data from the Alaska Birth Defects Registry. 2005.

⁹ U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. 2000.

¹⁰ Alaska Department of Health and Social Services. Unpublished data from MCH Specialty Clinics. 2005.

¹¹ Alaska Department of Health and Social Services. Unpublished data from the Alaska Birth Defects Registry. 2005.

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4. MCH Population Needs by Pyramid Level

A & B. Direct Health Care Services and Enabling Services

Direct health care and enabling services combined encompass seven of the ten MCFH identified priority needs. For pregnant women, mothers and infants, there is an immediate need to reduce drug use among families, primarily excessive alcohol intake and cigarette use. Of concern is still the use of illicit drugs, but the more significant morbidity issues are associated with cigarettes, smokeless tobacco, and alcohol intake. Also of importance is the need for women to start their prenatal care early and have continuous prenatal care. Frequently access can be a challenge to receive timely prenatal care and more recently, limitations on provider payments has forced practice patterns to change the timing of the first prenatal visit.

Women also need continued access to comprehensive family planning services, including emergency contraception. Unplanned and unwanted infants are frequently the victims of abuse and neglect, and may permanently affect a woman's or family's economic advancement and future job opportunities.

Both children and children with special health care needs in Alaska need improved access to dental care. Although there is an increase in the number of pediatric dental providers who will take patients with Medicaid or Denali KidCare, there are not adequate numbers for all children in the urban areas. In many rural areas, services are simply not available by any type of provider or payor source. Itinerant providers do travel to rural areas to offer services, but frequency is often limited to single visits with out any continuity of providers. In addition, providers are frequently not attuned to the cultural differences of the clients in native communities. The issue of oral health has been a significant one in the last few years and it has received national attention regarding the dental provider program sponsored by the Indian Health Services and the lack of fluoridation of the water supply in rural and remote Alaska.

Alaska has one of the highest teen suicide rates in the nation, which is often attributed to family disintegration and lack of educational and economic opportunities in rural communities. While comprehensively addressing this need for Alaska's children will require collaboration between top federal and state policymakers, health and social services providers and economic development strategists, WCFH believes it paramount to address what many teens see as their only option – suicide.

Many individuals in all population groups (pregnant women, mothers, infants; children; and children with special health care needs) may require intervention in an effort to reduce child abuse and neglect in Alaska. The incidence rates of documented abuse and neglect are fairly high in Alaska and imply a cumulative prevalence of abuse and neglect over the 18 years of childhood of 5-10%. The cumulative prevalence of alleged abuse in Alaska is several fold higher. Because the experience of abuse has been associated with future criminal behavior, earlier and more frequent risk taking behavior such as unprotected sex and drug use, becoming an abuser and other adverse outcomes, WCFH believes that every effort should be undertaken to provide access to comprehensive activities designed to prevent abuse and neglect.

Rates of post-neonatal mortality remain high in Alaska and are one of the highest in the nation. Educational effort regarding the Back to Sleep campaign, bed sharing safety and alcohol usage, and injury prevention efforts focused on car seat usage, helmet usage and water safety have assisted in slight reductions, but further work is needed in this area.

WCFH has been working to increase the capacity of systems which appropriately identify and provide treatment for illness to prevent long term sequela for children and children with special health care needs. In regards to direct health care, WCFH both coordinates and provides services that seek to address the needs outlined above. The Alaska Primary Care Association estimates that only 10% of communities in Alaska (nearly all of which are urban) have adequate physician coverage. Increased federal support for telemedicine projects to electronically connect rural and urban providers and sites may help to alleviate

this disparity. Although this telemedicine equipment has been placed in all sub-regional native health clinics, and nearly all rural and remote health clinics, comfort with technology and lack of adequate band width, hinder use on a regular basis. Additionally, the Alaska Family Practice Residency Program graduated starting in May 2000, has successfully trained to work all of its residents to work specifically in rural areas. With five classes of graduates, nearly 70% of the graduates have taken positions in underserved areas. Maps indicating underserved areas are included with this document.

Like direct care, access to enabling services for individuals in all population groups differs within the State. While much of the variance in both categories of service (direct care and enabling services) can be attributed to Alaska's vast size, WCFH works creatively to ensure provision of services. WCFH continues to contract with specialists from "Outside" (the contiguous United States) for specialty services (i.e. genetics, spina bifida, and cerebral palsy specialists, and metabolic geneticists) and travels these types of providers urban and rural Alaska on a regularly scheduled basis. In addition, WCFH works collaboratively with the major medical centers offering perinatal and pediatric specialized services to identify needs and engage in collaborative recruitment activities. Since 2000, their collaborative effort has resulted in over 20 specialists relocating to Alaska. Finally, WCFH has a long history of sponsoring Cleft Lip and Palate assessment and treatment planning teams in Anchorage, Fairbanks and Juneau.

Beginning in 2001, three of the major hospitals and a number of hospitals in smaller communities contributed dollars to the University of Alaska in support of expanding the nursing program and initiating programs in medical technology and radiology technology. More programs are planned to be added in the future in an effort to meet the areas of shortage in certain medical fields.

The number of federally funded Community Health Centers has increased access to primary care for persons requiring care on a sliding fee scale. The number of CHC sites has increased from one site in 1995 to over 25 in 2005, including the Eastern Aleutian Tribes, a cluster of rural tribal health clinics. It should be noted that a number of Section

638 tribal run health consortiums are now successfully operating in the State. With many services for Natives in both rural and urban Alaska being provided by these organizations, many view services as more culturally appropriate than they have been in past years.

C. Population-Based Services

A reduction in the rates of domestic violence, child abuse and neglect and post-neonatal mortality, and increased rates in the surveillance and reporting of obesity and in children and postpartum depression are among the WCFH identified population based services needs. WCFH has identified target activities that will aim to impact each of these rates in an appropriate manner.

WCFH is involved in a number of other population based services programs including those related to newborn screening, immunization, teen birth rate, children's dental health, breastfeeding, newborn hearing screening, women who smoke and drink prenatally, mothers who place infants down to sleep in the supine position, fruit/vegetable consumption in child care centers, folic acid consumption to prevent neural tube defects.

Alaska's vast size makes collaboration with other groups essential in being able to make these disease prevention, health promotion and outreach programs widely available and accessible to all Alaskans. Collaboration occurs between non-profit organizations such as the March of Dimes, American Lung Association, Alaska Chapter of the Asthma and Allergy Foundation. In addition, collaboration between the not-for-profit hospitals, for profit hospitals, tribal facilities and the 3rd Medical Group at Elmendorf Air Force Base and Bassett Army Hospital occur on a regular basis.

D. Infrastructure Building Services

WCFH seeks to continue improving and maintaining the health status of its target populations by providing support to development of standards, training, information systems and systems of care. As a single category, Infrastructure Building Services encompasses the largest number of WCFH identified priority needs, including decreased

rates of drug use, unwanted pregnancies, post-neonatal mortality, and rates of very low birth weight babies; increased access to dental care; and increased surveillance of several MCH issues. Increased capacity building, primarily through the MCH Epidemiology will serve to address these needs. There is considerable coordination between WCFH and major providers of health care, as well as federal and state funded agencies, local nonprofits and tribal consortiums. Collaboration is essential due to the enormous geographic distances between communities in the State.

WCFH has directed considerable effort to enhance CSHCN service system coordination in the past five years and will continue to do so in the future. Entities with well-established Title V CSHCN connections include Indian Health Services (IHS), the Division of Behavioral Health which includes Children's Behavioral Health, The Division of Senior and Disability Services which contains the Medicaid waiver programs for children, Section of Public Health Nursing, Governor's Council on Disabilities and Special Education (GCDSE) which functions as the Intra-agency Coordinating Council for Part B, Part C and Developmental Disabilities, Division of Health Care Services (Medicaid administration), the All-Alaska Pediatric Partnership (AAPP) and its Subspecialty and CSHCN workgroups, the Department of Education and Early Development (DEED), the Bureau of Vital Statistics (BVS), the Children's Hospital at Providence (CHAP), the Stone Soup Group, a family support organization, Family Voices, and PARENTS, Inc., Alaska's parent training center.

State support for communities primarily occurs through the working relationships described above. The statewide EI/ILP provides technical assistance training, establishes data protocols, and provides financial resources to ensure the delivery of EI services.

Mechanisms also exist for the coordination of health components in community based systems as a result of the interactions among and between the state and private sector stakeholders who work with Title V and CSHCN programs. Future community development is likely to occur through comprehensive support for "grass-roots" efforts, whenever possible. As an example, the coordinated planning for Specialty Clinic services

involves IHS, CHAP, the AAPP and PHN. This is expected to continue and will continue involve privatization of services of services and increased referral and support services for families in the future.

II. Needs Assessment

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5. Selection of State Priority Needs

WCFH assessed the existing priority needs and State negotiated performance measures during the five-year statewide needs assessment. Focus for MCH issues has been and will continue to be on prevention and early intervention services related to areas such as family violence, child abuse and neglect, young children's access to health care and reduction of unintended pregnancy. Previously identified priority needs have been retained, although two have been broadened to include more of the MCH population. In addition, two emerging issues, childhood obesity and mental health, were identified as new priority needs during this year's Needs Assessment. The State negotiated performance measures have been modified, although keeping the focus similar to what was previously monitored. Having two new priority needs WCFH felt it necessary to add additional State performance measures. Through these newly developed performance measures, WCFH will for the first time, have goals associated with, and conduct yearly monitoring of, childhood obesity and maternal mental health. MCH will continue to rely upon the MCH EPI staff to support programs and monitor activity effectiveness through its development and implementation of data systems and analysis of relevant data.

List of new State negotiated Performance Measures that developed from the Five-Year Needs Assessment and State Priority Needs:

1. Percentage of mothers of newborns who say their physician or health plan would not start prenatal care as early as they wanted or they could not get an appointment as early as they wanted. (New)
2. Percentage of women who smoked during the last 3 months of pregnancy among women who smoked 3 months prior to pregnancy and were talked to about the effects of prenatal smoking by a prenatal care provider. (Revised)
3. Percentage of children ages 10-11 who are at risk for being overweight. (New)

4. Rate of substantiated reports of harm to children ages 0 through 18 per thousand population. (No change)
5. Percentage of women who recently had a live born infant who reported their prenatal health care provider advised them not to drink alcohol during their pregnancy. (Revised)
6. Prevalence of unintended pregnancies that resulted in a live birth among women who report having a controlling partner during the 12 months prior to getting pregnant. (Revised)
7. Percentage of women who recently had a live born infant who reported they always or often felt down, depressed, or hopeless since their new baby was born. (New)
8. Prevalence at birth of Fetal Alcohol Spectrum Disorder. (New)
9. Percentage of infants who are reported to have a Cleft Lip/Palate defect who access the Title V sponsored Cleft Lip and Palate Specialty Clinic within the first year of life. (New)
10. Percentage of home and child care centers who offer snacks or meals that include fruits and vegetables. (New)

State Priority Needs and supporting activities as they relate to the four levels of the pyramid:

1. Reduce the rate of drug use among families, primarily alcohol intake and cigarette use.

This priority has not changed since the last BG application. It relates to new State Performance Measures #2, #5, and #8 (refer to list of SPMs above).

Enabling Services:

- MCH staff work with grantees that deliver Healthy Families programs to intervene and actively refer women who are drinking especially during their

pregnancy. MCH plans to advocate in communities for more treatment facilities for women who have children and need a residential program.

- MCH staff plan to republish and distribute Healthy Mom/Healthy Baby Diaries which include warnings about the harmful effects of alcohol, drugs and tobacco on unborn babies and infants.

Population-Based Services:

- MCH staff collaborates with the local March of Dimes chapters as part of the preterm delivery campaign to develop smoking cessation classes with hospitals and local agencies as well as the development of support systems for women who are pregnant.

Infrastructure Building Services:

- As part of the State's Five-Year Needs Assessment, detailed fact sheets addressing prenatal alcohol use, prenatal tobacco use, prenatal marijuana and cocaine use, adolescent substance use, and Fetal Alcohol Syndrome were developed and will be updated and distributed yearly.
- MCH Epi collects and analyzes data through its FAS Surveillance and Pregnancy Risk Assessment Monitoring activities and collaborates, for example, with the state FAS program by providing data to be used in program planning.
- MCH Epi produces yearly publications (Fact Sheets, MCH Data Book, and MCH Datalines) on FAS and other effects of prenatal alcohol use, prenatal smoking, drinking, and illicit drug use, post-partum smoking and drinking, and prenatal and post-partum binge drinking. Fact sheets are also developed on youth risk behaviors such as smoking, drinking, and illicit drug use. MCH Epi maintains a website that provides access to all publications for viewing and downloading.

- MCH trend data, Healthy People/Healthy Alaskans MCH and family planning data, and all Block Grant performance and outcome measures that are related to this priority are made available through the MCH Epi website.
- Alaska PRAMS added questions regarding iq'mik use and commercial spit tobacco use during the prenatal period. These data have never been collected before and will be available for birth years 2004-2008.
- Alaska PRAMS is collaborating with CDC on a publication "Prenatal Smokeless Tobacco Use among Alaska Native Women in Alaska, 1996-2001".

2. Reduce the rate of child abuse and neglect.

This priority has not changed since the last BG application. It relates to new State Performance Measures #4 and #6 (refer to list of SPMs above).

Enabling Services:

- Activities of MCH programs which address this issue include the Healthy Families Alaska home visiting program and the Family Violence Prevention Project.

Population-Based Services:

- WCFH will develop and implement a questionnaire and distribute educational materials on Shaken Baby Syndrome and Sudden Infant Death Syndrome (SIDS).

Infrastructure Building Services:

- As part of the Five-Year Needs Assessment, WCFH produced fact sheets on child maltreatment, mortality, and injury. These will be updated yearly and made available for downloading through the web.

- MCH trend data, Healthy People/Healthy Alaskans MCH and family planning data, and all Block Grant performance and outcome measures that are related to this priority are made available through the MCH Epi website.
- WCFH is collaborating with the Office of Children’s Services in the Strengthening Families Initiative that involves early childhood centers working with families to build protective factors around children. As one of only six states awarded this grant from the Doris Duke Charitable Foundation, this collaborative effort brings together a leadership team from child welfare, child abuse prevention, early childhood, public health as well as parents and community leaders.
- WCFH is also collaborating with the Office of Children’s Services on the Early Care and Comprehensive Systems grant awarded by HRSA

3. Increase public awareness and access to health care services for children and CSHCN.

This priority has been broadened from the last BG application. It relates to new State Performance Measures #4 and #9 (refer to list of SPMs above) and National Performance Measures #2-6.

Direct Health Care Services:

- WCFH will continue to sponsor genetics clinics and pediatric specialty clinics that would not otherwise be available in the state of Alaska.

Enabling Services:

- The Early Periodic Screening Diagnosis and Treatment (EPSDT) program in collaboration with other Medicaid programs developed and continue to distribute a Medicaid benefits booklet. EPSDT has initiated methods to educate foster

parents in order to improve the level of EPSDT and Medicaid services to children in State custody.

- The EPSDT program also distributes age specific newsletters to Medicaid beneficiaries (both Title XIX, and Title XXI) that provide information on new services, the importance of immunizations and regular well child exams and growth and development norms.
- WCFH plans to expand parent navigation services, allowing them to work with more families at specialty clinics and to work with families whose newborns are hearing impaired.

Population-Based Services:

- MCH programs offering services for children and CSHCN will participate in events like the Baby Fair to distribute information to the public.
- The Section Chief of WCFH (the Title V/CSHCN Director) will continue to participate with the All Alaska Pediatric Partnership in the identification of pediatric sub specialists and their recruitment.

4. Reduce the rate of unplanned and unwanted pregnancies including teen pregnancies.

This priority has not changed since the last BG application. It relates to new State Performance Measure #6.

Direct Health Care Services:

- The MCH capacity to address this issue has varied over the years with changes in funding availability. We currently support family planning and abstinence education activities.

Enabling Services:

- Public Health Nursing sites are provided with Title X funding to purchase contraceptives and supplies.
- Title V monies fund three nurse practitioner contracts for family planning services.

Population-Based Services:

- WCFH will provide funding through a federal abstinence grant to local high schools which will enable them to conduct Postponing Sexual Involvement training to junior high and high school students.
- MCH staff, through conferences and training opportunities, provides information for medical providers and public health professionals on contraception and the need to prevent unintended pregnancies. MCH staff also offers continuing education opportunities on all topics related to unintended pregnancy.

Infrastructure Building Services:

- As part of the State's Five-Year Needs Assessment, detailed fact sheets addressing unintended pregnancy, teen pregnancy and sexual behavior, and contraception were developed and will be updated and distributed yearly.
- MCH Epi, PRAMS produces publications on unintended pregnancies resulting in live-born infants and is currently publishing an MCH Data Book focusing on PRAMS data which includes analyses of unintended births. The MCH Epi Unit also regularly produces fact sheets and other publications on teen births. MCH Epi maintains a website that provides access to all publications for viewing and downloading.
- MCH trend data, Healthy People/Healthy Alaskans MCH and family planning data, and all Block Grant performance and outcome measures that are related to this priority are made available through the MCH Epi website.

- WCFH staff collaborate with partners on the Alaska Women’s Health Partnership to educate the public and medical providers about the need to prevent unintended pregnancies in Alaska.

5. Increase access to dental health services for children.

This priority has not changed since the last BG application. It relates to new State Performance Measure #9 (refer to list of SPMs above) and National Performance Measures #9 and #14.

Infrastructure Building Services:

- The State's MCH capacity to identify and address oral health issues has improved significantly with the availability of CDC grant funding. Significant progress has taken place with the development of an oral health steering committee. A baseline assessment of 2,300 3rd graders across the state has been completed with preliminary results recently available. This will provide the State oral health programs with a baseline measurement of oral health status that will assist in further development of the State oral health plan.
- The State’s Dental Officer oversees contracts with pediatric dental providers to increase access to services for children enrolled in Medicaid/SCHIP.
- The State’s Dental Officer participated in the development of the tribal Dental Health Aide Program.
- The State’s Dental Officer participated in the development of pediatric resident itinerant rotations in Alaska.

Enabling Services:

- The Early Periodic Screening Diagnosis and Treatment (EPSDT) program in collaboration with other Medicaid programs developed and continue to distribute a Medicaid benefits booklet. EPSDT has initiated methods to educate foster

parents in order to improve the level of EPSDT and Medicaid services to children in State custody.

6. Reduce the rate of domestic violence.

This priority has not changed since the last BG application. It relates to State Performance Measures #4 and #6 (refer to list of SPMs above).

Enabling Services:

- The MCH capacity to address these issues is primarily through its Family Violence Prevention Project and, to a lesser extent, its Healthy Families Alaska grantees.
- MCH Title V funds assist in funding a resource center that contains materials on education and prevention of domestic violence.

Infrastructure Building Services:

- MCH Epi, PRAMS produces publications on physical abuse around the prenatal period and is currently publishing an MCH Data Book focusing on PRAMS data which includes analyses of partner physical abuse during the prenatal period. MCH Epi maintains a website that provides access to all publications for viewing and downloading.
- MCH trend data, Healthy People/Healthy Alaskans MCH and family planning data, and all Block Grant performance and outcome measures that are related to this priority are made available through the MCH Epi website.

7. Reduce the rate of post-neonatal mortality.

This priority has not changed since the last BG application. It relates to new State Performance Measure #4 (refer to list of SPMs above) and National Performance Measures #1, #3 and #4.

Direct Health Care Services:

- Infants with identified metabolic disorders are referred to state-sponsored Genetics and/or Metabolic Clinics. Infants are seen at the clinics regardless of family's ability to pay.

Enabling Services:

- Nutrition education information and referral to prenatal care services are provided to help ensure positive birth outcomes and reduce the incidence of low birth weight among infants born to women enrolled in the WIC Program during their pregnancies.
- WCFH will republish and distribute Healthy Mom/Healthy Baby Diaries, a handbook for pregnant women and new mothers that contains information on a wide range of topics for having a healthy baby.
- WCFH will distribute "Never Shake a Baby" and "Back to Sleep" brochures to inform parents about the risks of shaking a baby and the importance of putting babies to sleep in a supine position.

Population-Based Services:

- The Newborn Metabolic Screening Program promotes and supports education around reducing the number of hospital discharge refusals and proper collection techniques (enabling service) that has increased and kept steady the percentage of newborns that were screened to 100%. Beginning in fall of 2003, the implementation of tandem mass spectrometry allowed Alaska to begin testing for over 30 conditions that could adversely affect an infant's physical and mental health.

Infrastructure Building Services:

- As part of the State's Five-Year Needs Assessment, detailed fact sheets addressing infant mortality, infant injury, back to sleep, and co-sleeping were developed and will be updated and distributed yearly.
- Review of epidemiological data and information from the Maternal Infant Mortality Review which is provided to programs, health care providers and communities for program planning and education that focus primarily on prevention-related activities such as the Back to Sleep and Never Shake a Baby campaigns. This issue has been heavily focused on over the last couple of years. The state has actively engaged all of the birthing facilities to participate in the national education campaign around many of these issues.
- The MCH Epidemiology Unit publishes several fact sheets and other public health publications addressing infant mortality, infant health, prenatal health, and reproductive health. The 2003 MCH Data Book was a comprehensive examination of Alaska's MCH population. The 2004 MCH Data Book, currently in preparation, focuses on Alaska PRAMS data. Future publications include Alaska Birth Defects and FAS.

8. Reduce the rate of teen suicide.

This priority has not changed since the last BG application. It relates to National Performance Measure #16.

Infrastructure Building Services:

- WCFH capacity to address this issue is through its adolescent health program, promotion of Youth Developmental Assets, and collaboration with other agencies and organizations. The focus of this work changed considerably and has transferred to the Division of Behavioral health as the Adolescent Health Coordinator position has gone away. In its place a Resiliency Coordinator position was created by the former Adolescent Health coordinator. This position works to blend in the Assets Model and development of resiliency factors for teens as a means of suicide prevention. Teen suicide prevention is a priority issue

in the current administration with a dedicated staff assigned to work on it. Involvement of MCH staff has been limited.

- The MCH Epidemiology Unit regularly produces fact sheets addressing suicide among this population. As part of the State's Five-Year Needs Assessment, a detailed fact sheet addressing teen intentional injury was developed. The MCH Data Book also includes analyses for this issue.
- The MCH Epidemiology Unit is conducting an analysis of Youth Risk Behavior Survey data that examines the relationship between youth connectedness factors and suicide thoughts and behaviors.

9. Reduce the prevalence of childhood obesity and overweight.

This is a new State priority. It relates to State Performance Measures #3 and #10 (refer to list of new SPMs above)

Infrastructure Building Services:

- As part of the State's Five-Year Needs Assessment, detailed fact sheets addressing obesity, nutrition, physical activity, and diabetes were developed and will be updated and distributed yearly.
- Public Health collaborated with the Anchorage School District to conduct an analysis of the prevalence of overweight and obesity among school age children. WCFH is currently exploring the possibility of utilizing school district data on a regular basis to examine overweight and obesity among this population.
- WCFH staff participate in the Healthy Kids Alaska coalition which is focusing currently on improving the nutritional make up of school breakfasts and lunches and is advocating for the removal or change in contents of the vending machines in schools across the state.
- State MCH staff are also participating in the Obesity Mayoral Task force in Anchorage.

10. Increase awareness around mental health issues in the MCH population.

This is a new State priority. It is related to State Performance Measure #7 (refer to list of new SPMs above) and National Performance Measure #16.

Infrastructure Building Services:

- As part of the State's Five-Year Needs Assessment, detailed fact sheets addressing maternal mental health, particularly post-partum depression, teen suicide and suicidal behavior, and child mental health were developed and will be updated and distributed yearly.
- The 2003 MCH Data Book was a comprehensive examination of Alaska's MCH population and included analyses of maternal mental health, such as maternal life stressors during pregnancy and post-partum depression. The comprehensive data book is planned to be published every three or four years with special focus data books to be published during the in-between years.
- MCH Epidemiology has been using Medicaid claims data to examine child mental health issues and is actively exploring the possibility of using data sources other than Medicaid.
- A Future Public Health Summit topic for the Women's Health track will focus on Postpartum Depression and the unique aspects regarding women's mental health issues.

II. Needs Assessment

Section C

Needs Assessment Summary

List of State Priority Needs

1. Reduce rate of drug use among families, primarily alcohol intake and cigarette use. This need has not changed since the last BG application.
2. Reduce the rate of child abuse and neglect. This need has not changed since the last BG application.
3. Increase public awareness and access to health care services for children and CSHCN. This priority need has been broadened from the last BG application, which was to increase public awareness and access to services for children's behavioral health issues.
4. Reduce the rate of unplanned and unwanted pregnancies (including teen pregnancy). This priority need has not changed since the last BG application.
5. Increase access to dental health services for children. This priority need has not changed since the last BG application.
6. Reduce the rate of domestic violence. This priority need has not changed since the last BG application.
7. Reduce the rate of post-neonatal mortality. This priority need has not changed since the last BG application.
8. Reduce the rate of teen suicide. This priority need has not changed since the last BG application.
9. Reduce the prevalence of childhood obesity and overweight. This was identified as a new State Priority during this Five-Year Needs Assessment.
10. Increase awareness around mental health issues in the MCH population. This was identified as a new State Priority during this Five-Year Needs Assessment.

Process to Determine Priority Needs (Summary)

WCFH utilized a very different method of identifying priority needs than what had been done historically. For this Five-Year Needs Assessment WCFH wanted more inter-

department, inter-agency, public health community, and consumer collaboration than had been attempted in the past. WCFH also felt it was very necessary to continue these collaborations during the interim years of the Needs Assessment process and put in place a system to keep the process moving forward. This year as part of the prioritization process nearly all of the existing performance measures, health status, and capacity indicators that are part of the Block Grant application were incorporated into the topic specific fact sheets as well as additional MCH issues identified by WCFH staff. Approximately 40, 2-4 page fact sheets were distributed to focus groups for their review. A modified Hanlon-Pickett method was used to design an on-line survey for ranking priorities, which were completed by participants and analyzed prior to focus group meetings. At the beginning of each focus group the results of the ranking from their surveys were presented in order to focus the discussions and act as a starting point. Each focus group was a half day meeting of discussions, presentations of ideas, opinions, and concerns between stakeholders and WCFH staff. The final list of identified State Priorities involved several meetings with the WCFH Section Chief and State staff from the MCH Epidemiology Unit, who play a critical role in the data coordination efforts for the Title V Block Grant Application, as well as being the entity at the State level that monitors and analyzes MCH data and emerging issues.

The State intends for the Needs Assessment process to be on-going throughout the five-year cycle. The structure is in place to produce yearly updates to the WCFH Fact Sheets that will be shared with the stakeholders from this process, State staff, and made widely available to the public/private health community. Meetings with stakeholders will be on-going throughout the five-year cycle, with at least one meeting per year to distribute fact sheets, discuss progress on the State priorities and activities, gain feedback on performance, and share new developments that may impact the State's capacity to address identified issues.

There was a thorough review of State data for all topics that were addressed. All issues were represented as thoroughly as possible, including trend analyses, disparities and progress toward HP goals. Capacity was researched and presented during the

prioritization process for all issues. Stakeholders were given background on current priorities, performance measures, and progress made in these areas as well as capacity issues that would have an impact on the States ability to address priorities – both current and those that were identified as possible new priorities.

Needs Assessment Partnership Building and Collaboration (Summary)

For this Needs Assessment, Alaska was committed to extensively involving the community, public and private health professionals, and other State and local organizations in order to identify and develop State priorities and State Performance Measures at a level that was not done in the past. Attendees were selected for focus groups and asked to participate by the WCFH Section Chief. Selection was based on appropriateness of their background and expertise to the focus group population being addressed. Representation at the focus groups was broad, with a balance of professionals from the public health community, non-profit organizations, medical community (public and private), parents and consumers.

Including stakeholders at the level required in order for the process to be successful and useful created several opportunities for State staff to familiarize with the issues and concerns that were outside of the WCFH Section. The process created collaboration that was extremely successful in the opportunities it provided to the State. The MCH Epidemiology staff was able to gain insight on several issues that affect Alaska's MCH population, and as a result of this collaboration, there are several research and analysis projects that are now developing. The process allowed stakeholders to discuss with MCH Epidemiology staff issues surrounding data, such as small numbers limitations, limited data resources for what they felt were critical health issues and lack of data reporting on some populations.

The sheer number of data sources that were utilized for the fact sheets and the Needs Assessment required a significant amount of collaboration within WCFH and between WCFH and other Public Health sections. Information and data were provided through collaboration with the State Pediatric Specialist, State program managers and program

staff that are responsible for program planning and evaluation, including oversight of program activities and funding. WCFH also worked very closely with and relied very heavily on the Alaska Bureau of Vital Statistics, as they coordinated with WCFH to provide a significant amount of vital records data for the Needs Assessment process. Other primary State data sources that contributed a significant amount of time for data coordination, providing program information, and fact sheet review included the Alaska Pregnancy Risk Assessment Monitoring System and the Alaska Trauma Registry. Many other State programs provided guidance and data, including the programs from the Office of Children's Services, Health Care Services, and several State registries such as Alaska Birth Defects Registry and the Alaska Cancer Registry.

Justification of how State's analysis of need by MCH population pointed to the State's Priority Needs

All new priorities that were identified were evaluated using the same criteria and process. There were several areas that stakeholders had a lot of interest in addressing, those that were of highest priority, aligned with National Performance Measures, HP objectives, and within the capacity of WCFH to address were considered for final review. There were some needs that were cross-cutting and pervasive across all groups which were also highly considered. The final list of identified priority needs was representative of the outcome from collaboration with stakeholders from each MCH population group, as well as representative of priorities previously identified that WCFH felt should remain active. The following summarizes the justification for the new State priorities that were the result of the Five-Year Needs Assessment.

With the highest suicide rates in the Nation for all age groups among the MCH population and the emerging issue of maternal mental health and postpartum depression, mental health was an issue that each MCH focus group felt should be addressed. Focus groups also expressed concern for Alaska's lack of capacity and infrastructure to address the issue and scarce data sources for the myriad of mental health issues.

With high rates of FAS and significant racial disparities in prevalence between Alaska Natives and non-natives, FAS and other effects of prenatal exposure to alcohol was an issue that was identified as a priority among all focus groups. This is a new State Performance Measure that falls under the umbrella of the current priority need to reduce drug use among families, primarily alcohol intake and cigarette use.

In Alaska, the lack of improvement in prenatal care indicators has been recognized as a problem, particularly for Alaska Native women. Approximately 1 in 3 Alaskan women received less than adequate prenatal care and an analysis of Alaska Pregnancy Risk Assessment Monitoring System data indicated that 1 in 5 Alaskan women did not get prenatal care as early in their pregnancy as they wanted. The Pregnant Women and Infants focus group identified this as a priority need, with specific focus on barriers to early prenatal care.

Alaska has very high rates of injury and mortality compared to the Nation and Healthy People 2010 goals, and child maltreatment in Alaska is 3.5 times the National rate for substantiated reports of harm. There are also significant racial disparities between Alaska Natives and non-natives for all of these issues, especially for suicide and child maltreatment. Domestic violence, injury and mortality, and maltreatment were issues that the Women's and Children's focus groups felt needed to be addressed.

Alaska is no different from the Nation with respect to the increasing trends in overweight/obesity. Recent analyses have shown that among Anchorage school district children, 18% were at-risk for becoming overweight, and 18% were overweight. The findings were similar for children entering kindergarten or first grade, 32% were overweight or at-risk for becoming overweight. Alaska YRBS showed very similar results for high school students, as well as indicating poor eating habits and nutrition. Two years ago the Section of Epidemiology was awarded funds to initiate an obesity prevention program. From this an obesity workgroup was formulated to look critically at this issue and identify potential data sources. Overweight/obesity and nutrition were issues that the Children and CSHCN focus groups felt were very high priorities.

Additionally, access to care was a priority for the CSHCN focus group, noting a lack of specialty providers, interventions, and the significant number of children that still must leave the State to get services despite the recruitment of more than eight sub-specialists in the last seven years.

Oral health was also identified as a priority for the CSHCN focus group. Of Alaskan CSHCN in 2001, nearly 80% needed dental care, including check-ups in the past 12 months of the survey. Of these, 11.5% did not receive the dental care they needed. Furthermore, recent data from the Alaska Birth Defects Registry showed that the rate of oral cleft among Alaskan children was three times higher than the national rate (3.1 and 1.2 per 1,000, respectively). There are also significant racial disparities between Alaska Native Children and white children – with a rate twice as high among Alaska Native children (5.0 and 2.7 per 1,000, respectively).

II. Needs Assessment

Section D

Health Status Indicators

In order to fully assess the needs of the MCH population, the comprehensive list of Health Status Indicators was included in Alaska's analysis for the Five-year Needs Assessment. The following is a description of how the outcome of the Needs Assessment related to the Health Status Indicators as they guided our State Priority Needs, and a brief summary of what is reported in the 2006 Block Grant Application on Forms 20-21. For detailed narrative of the analysis by Health Status Indicator topic areas, refer to the appropriate population of the Health Status Section (Section B3 A-C). For the complete data source and data limitations related to the Health Status Indicators that were used in the Needs Assessment, refer to the Process for Conducting Needs Assessment Section (Section B1, under Data Sources).

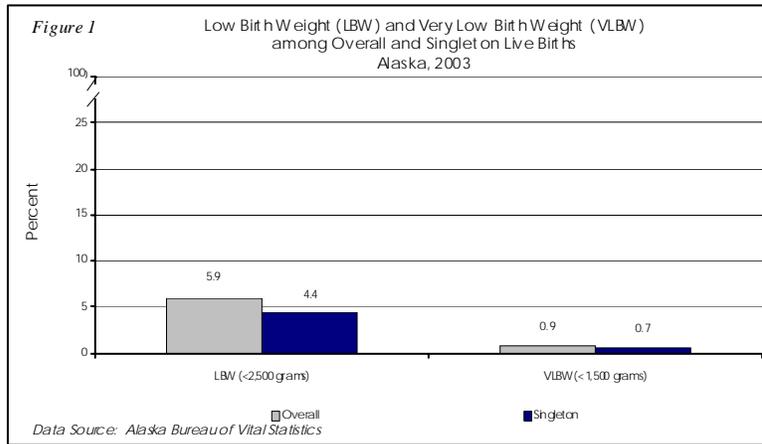
Health Status Indicator #1A, 1B, 2A, 2B (Low Birth Weight)

The percent of live births weighing less than 2,500 grams and less than 1,500 grams and the percent of singleton live births weighing less than 2,500 grams and less than 1,500 grams. (Data Source: Alaska Bureau of Vital Statistics)

Low birth weight (LBW) was addressed for the Five-Year Needs Assessment process. Trend analyses, racial disparities, and comparisons to HP2010 and the Nation for HSI #1A-2B were included in addressing this topic. The following is a summary of what is reported for the 2006 Block Grant application, Form 20.

In Alaska, 1 in 17 live births was LBW and nearly 1 in 111 was VLBW. Nationally, rates of LBW and VLBW were 1.3 and 1.6 times higher compared to Alaska and preliminary national data showed that Alaska ranked number one for LBW. Alaska has made significant progress toward achieving the Healthy People 2010 (HP2010) goals. Alaska achieved the HP2010 goal of 0.9% for VLBW in 2002 and 2003. In addition,

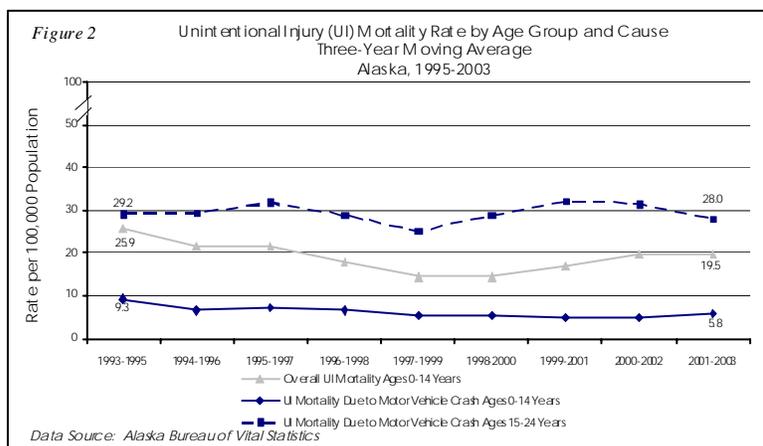
LBW and VLBW among singleton births during 2003 met the HP2010 goals, with rates of 4.4% and 0.7%, respectively.



Health Status Indicator #3A, 3B, 3C (Unintentional Injury Deaths)

The death rate per 100,000 due to unintentional injuries among children aged 14 years and younger and the death rate per 100,000 from unintentional injuries due to motor vehicle crashes among children aged 14 years and younger and youth aged 15 through 24. (Data Source: Alaska Bureau of Vital Statistics)

Unintentional injury mortality was addressed for the Five-Year Needs Assessment. Trend analyses, racial disparities, and comparisons to HP2010 and the Nation for HSI #3A-C were included in addressing this topic. The following is a summary of what is reported for the 2006 Block Grant application, Form 20.



Due to small population size and small number of events that occur in Alaska, Health Status Indicators 3A-3C are reported in three-year moving averages. In Alaska and in the United States the leading manner of death among children, regardless of age or sex, is unintentional injury. Over one-half of all child mortality was attributable to unintentional injury. The most common causes of unintentional injury deaths among children are motor vehicle crashes, drowning, and fires. Over the last decade, child mortality rates for unintentional injury declined in Alaska and in the nation.

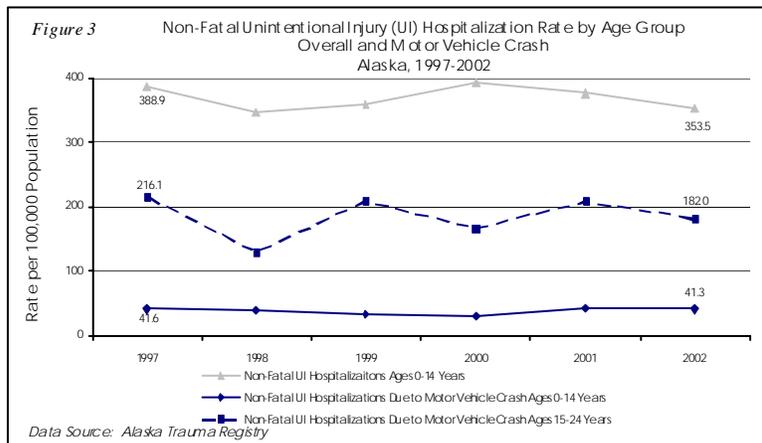
Alaskan teenagers have higher unintentional injury mortality rates than any other age group. The leading cause of unintentional injury deaths to Alaskan teens over the last decade (1993-2003) was motor vehicle crashes, accounting for more than one-half of all unintentional injury deaths and nearly one-fourth of overall deaths among this age group.

Health Status Indicator #4A, 4B, 4C (Non-fatal Injury)

The rate per 100,000 of all non-fatal injuries among children aged 14 years and younger and the rate per 100,000 of all non-fatal injuries due to motor vehicle crashes among children aged 14 years and younger and youth aged 15 through 24. (Data Source: Alaska Trauma Registry)

Trend analyses, racial disparities, and comparisons to HP2010 and the Nation for HSI #4A-C were included in addressing this topic for the Five-Year Needs Assessment. Non-fatal injury is related to the identified State Priority to reduce the rate of child abuse and

neglect. The following is a summary of what is reported for the 2006 Block Grant application, Form 20.



During 1997-2002, the leading cause of non-fatal hospitalizations among children 14 and younger was unintentional injury. Among this age group, falls were the leading cause of injury. In 2002, motor vehicle crashes accounted for approximately 12% of all non-fatal unintentional injury hospitalizations to children ages 0-14 years.

From 1995-2002, there was no significant decline in the trend for non-fatal unintentional injury hospitalization rates, overall or due to motor vehicle crashes, for children ages 14 and younger. There was also no significant difference in these rates from 2001 to 2002.

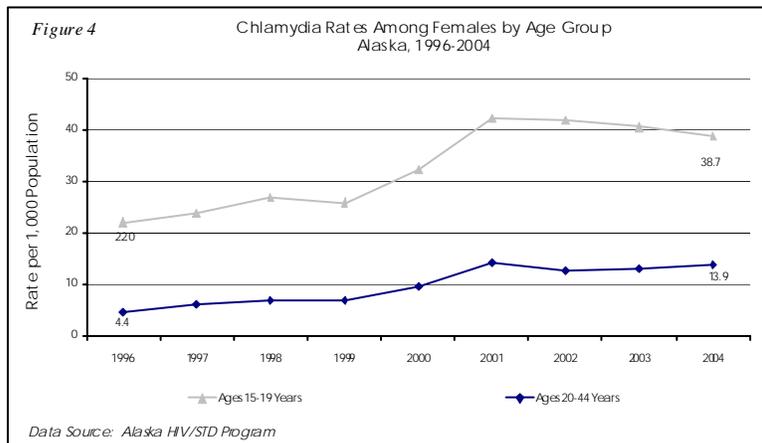
Furthermore, there was no significant decline in the trend for non-fatal hospitalizations due to motor vehicle crash among persons ages 15-24 during this same time period.

Health Status Indicator #5A, 5B (Chlamydia)

The rate per 1,000 women aged 15 through 19 and 20 through 44 with a reported case of chlamydia. (Data Source: Section of Epidemiology, HIV/STD Program)

Sexually transmitted diseases including chlamydia were addressed for teen aged females and women overall for the Five-Year Needs Assessment. Age and racial disparities, as well as comparisons to HP2010 and the Nation for HSI #4A-C were included in

addressing this topic. The following is a summary of what is reported for the 2006 Block Grant application, Form 20.



Reported chlamydia rates among Alaskan females of all age groups have significantly increased from 1996-2004. In 2003, Alaska's reported overall chlamydia rate among women was the highest in the Nation – 1.8 times that of the U.S. as a whole. Compared to 1996, the chlamydia rate in 2004 among Alaskan females ages 20-44 increased more than 3-fold (4.4 and 13.9 per 1,000 respectively).

In 2004, reported chlamydia rates among Alaskan females ages 15-19 were 4 times higher than males of the same age group. From 1996 to 2004 the chlamydia rate among this group increased 75% (22.0 to 38.7 per 1,000, respectively).

Increases in the reported rates of chlamydia may be attributed to the expansion of chlamydia screening activities.

Health Status Indicator #6A, 6B (Population Demographics)

Infants and children aged 0 through 24 years enumerated by sub-populations of age group, race, and ethnicity. (Data Source: Alaska Department of Labor)

The following is a summary of the child population (ages 0 through 24) estimates from the Alaska DOL, for July 1st 2004. For more detail of race by age group and technical notes, refer to the 2006 Block Grant application, Form 21.

Population of Children Ages 0-24 Years by Age Alaska, 2004		
Age (Years)	Population	Percent of Population Ages 0-24
<1	10,421	4.1
1-4	42,116	16.4
5-9	50,856	19.8
10-14	56,762	22.1
15-19	54,060	21.1
20-24	42,269	16.5
total 0-24	256,484	100.0

Population of Children Ages 0-24 Years by Race/Ethnicity Alaska, 2004		
Race/Ethnicity	Population	Percent of Population Ages 0-24
White Alone	163,969	63.9
Black Alone	9,790	3.8
Alaska Native Alone*	50,457	19.7
Asian Alone	9,658	3.8
Pacific Islander Alone	1,785	0.7
2 or more races	20,825	8.1
Hispanic^	13,180	5.1
Total	256,484	100.0

*Alaska Native includes American Indian

^Hispanic can be any race

Health Status Indicator #7A, 7B (Live Births)

Live births to women enumerated by maternal age, race, and ethnicity. (Data Source: Alaska Bureau of Vital Statistics)

The following is a summary of live births from birth certificates for 2003. For more detail of race by age group and technical notes, refer to the 2006 Block Grant application, Form 21.

During 2003, there were 10,083 live births – just over three-quarters were to females ages 20-34 years. Over 10% of all live births were to females ages 15-19 years. Approximately one-fourth (24.4%) of all live births were to Alaska Native women and 63.3% were to white women. Nearly 8% (7.6%) of all live births were born to Hispanic women. Black, Asian, and Hawaiian/Pacific Islander women combined comprised 10.8% of all live births.

Total Live Births by Age Group		
Alaska, 2003		
Age (Years)	Births	Percent of Total Births
<15	44	0.4
15-17	291	2.9
18 - 19	730	7.2
20-34	7,636	75.7
35 and over	1,372	13.6
Women of all ages	10,083	100

Total includes 10 births to women of unknown age

Total Live Births by Race/Ethnicity		
Alaska, 2003		
Race/Ethnicity	Live Births	Percent of Total Births
White	6,384	63.3
Black	393	3.9
Alaska Native*	2,459	24.4
Asian	677	6.7
Hawaiian/Pacific Islander	24	0.2
Other/Unknown	146	1.4
Hispanic^	770	7.6
Total	10,083	100

*Alaska Native includes American Indian

^Hispanic can be any race

Health Status Indicator #8A, 8B (Deaths)

Deaths to infants and children aged 0 through 24 years enumerated by age subgroup, race, and ethnicity. (Data Source: Alaska Bureau of Vital Statistics)

Mortality among the MCH population was assessed for the Five-Year Needs Assessment. Age and racial disparities, as well as comparisons to HP2010 and the Nation for HSI #8A-B were included in addressing this topic. The following is a summary of what is reported for the 2006 Block Grant application, Form 21.

During 2003, 30.4% of all deaths among children ages 0-24 were infant deaths and 24.4% and 25.2%, respectively, were among 15-19 year olds and 20-24 year olds. Although comprising approximately one-fifth of the 0-24 population, deaths to Alaska Natives in this age group accounted for 40.8% of the total deaths. Nearly half (48%) of the deaths among children ages 0-24 years occurred among white children.

Deaths Among Children Ages 0-24 Years by Age Group		
Alaska, 2003		
Age (Years)	Deaths	Percent of Deaths
<1	76	30.4
1-4	12	4.8
5-9	10	4.0
10-14	28	11.2
15-19	61	24.4
20-24	63	25.2
Total 0-24	250	100

Deaths Among Children Ages 0-24 Years by Race/Ethnicity		
Alaska, 2003		
Race/Ethnicity	Deaths	Percent of Deaths
White	120	48.0
Black	9	3.6
Alaska Native*	102	40.8
Asian	15	6.0
Hawaiian/Pacific Islander	1	0.4
Other/Unknown	3	1.2
Hispanic^	10	4.0
Total 0-24	250	100

*Alaska Native includes American Indian

^Hispanic can be any race

Health Status Indicator #9A, 9B (Miscellaneous)

Infants and children aged 0 through 19 in miscellaneous situations or enrolled in various State programs enumerated by race and ethnicity. (Data Source: various, see notes related to specific indicator in Form 21.

There were several indicators related to HSI #9A-B that were evaluated for the Five-Year Needs Assessment. Examples include adolescents that reported smoking tobacco, children served by Medicaid and WIC and children in foster care. There are a total of ten measures that are reported by race and ethnicity for HSI#9A-B. Refer to Form 21 for the complete list of measures, data, and technical notes that were reported for the 2006 Block Grant Application.

Health Status Indicator #10 (Urban/Rural Demographics)

Geographic living area for all resident children aged 0 through 19 years. (Data Source: Census 2000, Alaska Department of Labor, and a special report from the Association of Maternal and Child Health Programs)

With respect to accessing health care and select issues that were analyzed by region, geographic living area was assessed for the Five-Year Needs Assessment. The following is a summary of what is reported for the 2006 Block Grant application, Form 21.

The Northwest has distinct challenges with the current urban/rural classification systems which do not adequately define rural populations and settlement patterns, and remote populations are not defined at all. A report from the Association of Maternal and Child Health Programs compiled the findings that address this issue for four states: Alaska, Idaho, Oregon, and Washington. The report provides a more appropriate classification system for the unique geographic demography of Alaska, although not perfect. The following is a summary of Alaska's State population by the classification system defined in the report using 2000 census data.

State Population by Classification System Alaska, 2000 Census Data		
Classification	Population	Percent of Total
Urban (1,000 person/sq. mile)	373,834	59.6
Mixed Urban/Rural (60 to 999 person/sq. mile)	---	---
Rural (10 to 59.9 person/sq. mile)	---	---
Frontier (0.5 to 9.9 person/sq. mile)	167,776	26.8
Remote (0.4 or less person/sq. mile)	85,332	13.6
Total	626,932	100

According to the 2000 census and the alternative classification system, approximately 60% of Alaska's population was considered urban (1,000 persons/square mile), more than one-fourth of the population was classified as living in a frontier area (0.5 to 9.9 persons/square mile), and 13.6% of the population was classified as living in a remote area (0.4 or less persons/square mile). None of Alaska's boroughs or census areas were classified as mixed urban/rural or rural with this system.

Health Status Indicator #11, 12 (Poverty)

The percent of the State population at various levels of the Federal Poverty Level (FPL) and the percent of the State population aged 0 through 19 years at various levels of the FPL. (Data Source: Census 2000, Alaska Department of Labor)

Poverty was addressed as it related to specific health disparity issues in the Five-Year Needs Assessment. The following is a summary of what is reported for the 2006 Block Grant application, Form 21.

Population by Federal Poverty Level by Age Group Alaska, 2000 Census Data					
Federal Poverty Level*	Under	Ages 6	Ages 12	Total	Total
	Age 6	to 11	to 17	Under	
				Age 18	Population
Below 50%	1.4	1.4	1.5	4.3	4.0
Below 100%	4.1	4.2	3.5	11.8	9.4
Below 200%	11.2	11.7	9.5	32.3	25.6

*Note that this data is based on the Federal Poverty Level, not the Alaska Poverty Level. Data in this table underestimates the actual percentage of people in poverty as listed here.

One-third (32.3%) of Alaskan children under 18 years of age and one-fourth (25.6%) of the total State population are below the 200% federal poverty level (FPL). Just under 12% of children ages 17 and younger and 9.4% of the total State population are below the 100% FPL. Approximately 4% of both, children 17 years and younger and the total State population, are below the 50% FPL. During 2004, according to the U.S. Department of Labor, Bureau of Labor Statistics, Alaska had the highest rate of unemployment of any State in the Nation at 7.5%.

II. Needs Assessment

Section E

Outcome Measures

This section is a brief description of the relationship between State MCH program activities, the National and State Performance Measures and their collective contributory positive impact on the outcome measures for the Title V population.

Since the last Five-Year Needs Assessment, Alaska has not critically evaluated goals or targets around the Performance or Outcome Measures. As a result, a target setting procedure was never put in place to systematically identify, monitor progress on, and evaluate measures as they related to the targets. A method for target setting is currently being developed and should be firmly in place by the 2007 Block Grant Application. For several years progress has been monitored by a systematic data analysis process that included trend analyses, yearly percent change, and comparisons to national data and Healthy People 2010 targets. This on-going monitoring is a large part of the target setting method that is being developed. The analysts and epidemiologists that conduct these analyses will be coordinating with State program managers by providing yearly data and summaries of results from trend analyses, HP2010 goals, and national data. State program managers, with the aid of the MCH Epi staff and other collaborating analysts, will then set the targets for National and State Performance Measures and Outcome Measures.

In order to assess progress for this Five-Year Needs Assessment, HP2010 goals and State targets that were identified from the last Five-Year Needs Assessment will be used in place of our current State targets as well as the overall significance of trends since the last Needs Assessment was conducted.

National Outcome Measure #1 -5

NOM #1-5 deal with infant mortality. Over the last decade, Alaska has made significant reductions in overall infant mortality (NOM#1), neonatal mortality (NO#3), post-

neonatal mortality (NO#4), and perinatal mortality (NO#5). Since the last Five-Year Needs Assessment, neonatal mortality has continued to decline, while post-neonatal mortality has increased slightly – remaining relatively unchanged over the last three reporting periods. Perinatal mortality has remained relatively unchanged since the last Five-Year Needs Assessment.

Overall infant mortality decreased 20% over the last decade in Alaska. During 2000-2002, Alaska's infant mortality rate was identical to the overall rate for the Nation. Although experiencing significant declines in infant mortality over the last decade, Alaska's rate was 53% higher than the HP2010 target. Infant mortality due to SIDS has significantly declined in Alaska. Over the last decade, SIDS rates among both, Alaska Natives and non-Natives, have declined nearly 50%. In spite of these declines, Alaska's SIDS rate for 2001-2003 was 4.3 times higher than the HP2010 target and was 1.5 times higher in Alaska compared to the Nation as a whole.

Neonatal mortality in Alaska declined by nearly 30% over the last decade and is consistently lower than the national average. The neonatal mortality rate in Alaska was 27% lower than the Nation and achieved the HP2010 goal. Although post-neonatal mortality in Alaska has declined significantly over the last decade, it has steadily increased since its' low in 1998-2000 – an increase of 30% from 1998-2000 to 2001-2003. Post-neonatal mortality was 1.6 times that of the national rate and was 2.7 times higher than the HP2010 target.

There are several program activities related to the National and State Performance Measures that have contributed to the reduction in infant mortality measures. Alaska's Newborn Metabolic Screening Program, through educational efforts around how to reduce the number of hospital discharge refusals and proper collection techniques has increased and kept steady the percentage of newborns that were screened to 100%. Early treatment and intervention has prevented mental retardation or early death for more than 20 infants born in Alaska in the previous two years. Beginning in fall of 2003, the

implementation of tandem mass spectrometry allowed Alaska to begin testing for over 30 conditions that could adversely affect an infant's physical and mental health.

Due to the lack of pediatric geneticists in Alaska, the Health Care Services Division contracted with Seattle Children's Hospital and Regional Medical Center to conduct statewide outreach clinics, often working with referrals from the Newborn Metabolic Screening Program. As a part of the Western States and Territories Genetics Collaborative Grant, assessing the need for genetic services expansion and developing a plan are part of the work currently underway to better meet the genetics service needs in the State.

Efforts of Alaska Women, Infant, and Child Nutrition (WIC) staff, Anchorage Immunization Partnership (AIP), Vaccinate Alaska Coalition, and tribal entities have likely contributed to increased immunization rates among Alaskan children ages 19 to 35 months. WIC currently screens immunization records of participants and refers children that are behind in the recommended immunization schedule to a health care provider or immunization clinic. Other activities of AIP and VAC have focused on increasing awareness through posters and PSAs.

The percent of Medicaid eligible children that have received a service paid by the Medicaid program has been increasing steadily since 1997. The Early Periodic Screening Diagnosis and Treatment (EPSDT) program in collaboration with other Medicaid programs developed and continue to distribute a Medicaid benefits booklet. EPSDT has initiated methods to educate foster parents in order to improve the level of EPSDT and Medicaid services to children in State custody. Early screening and intervention and treatment are known to have a positive effect on outcomes.

Efforts to increase awareness about Shaken Baby Syndrome (SBS) and Sudden Infant Death Syndrome (SIDS) are supported by the Office of Children's Services (OCS), including the distribution of educational materials on SBS and SIDS. OCS has developed and implemented questionnaires regarding SBS and SIDS that are distributed to all

families visited through the Healthy Families program. It addresses parent's feelings of anger and frustration toward their baby and how they coped with their feelings.

Placing infants to sleep on their backs is a modifiable behavior that has been shown to reduce the risk of Sudden Infant Death Syndrome (SIDS) – one of the leading causes of death to infants. In 1996, the “Back to Sleep” awareness campaign was initiated in Alaska to educate parents about reducing the risk of Sudden Infant Death Syndrome (SIDS) by placing their infants to sleep on their backs.¹ Concurrent with the Alaska “Back to Sleep” campaign, rates of SIDS or asphyxia of unknown etiology declined 45% between 1992-1996 and 1997.² From 1996-2002, the prevalence of putting infants to sleep on their backs significantly increased among Alaskan mothers – nearly 70% for Alaskan mothers overall and nearly 90% for Alaska Native mothers. The focus more recently has been on roll-over deaths and type of bedding and with newborns.

The WCFH, MCH Epidemiology Unit publishes several fact sheets and other public health publications addressing infant mortality, infant health, prenatal health, and reproductive health. The 2003 MCH Data Book was a comprehensive examination of Alaska's MCH population. The 2004 MCH Data Book, currently in preparation, focuses on Alaska PRAMS data. Future publications include Alaska Birth Defects and FAS.

NOM#2, the disparity between black and white infant mortality rates (ratio), has significantly reduced from the last Needs Assessment. The ratio has been declining consistently, from 1.9 for the 1995-1999 time period to 1.1 for the 1999-2003 time period. The stability that we are now seeing in this measure is a result of reporting this ratio as a 5-year moving average. The last Needs Assessment identified 1.6 as a target that Alaska would strive to meet; progress for this measure has exceeded this target for the last three Block Grant Applications.

National Outcome Measure #6

¹ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. p 80. June 2003.

² Gessner BG. Findings of the Alaska Maternal-Infant Mortality Review, 1999. Family Health Dataline. State of Alaska, Department of Health and Social Services, Section of Maternal, Child and Family Health. 6.2. 2000.

NOM #6 deals with child mortality ages 1 through 14. The Five-Year Needs Assessment showed that the leading manner of death for children in Alaska was due to unintentional injury. The leading causes of unintentional injury deaths among children ages 1-9 years were due to motor vehicle crashes, drowning, and exposure to smoke, fire, and flames. The leading cause of unintentional death among children ages 10-14 years were due to motor vehicle crashes. Suicide accounted for 10% of overall mortality among 10-14 year olds and was the second leading manner of death among this age group.

Alaska's mortality rates for children of all age groups were higher than the national rates and HP2010 targets. Compared to national rates among children ages 1-4 and 5-9 years Alaska's rates were 34% and 9%, respectively; among 10-14 year olds Alaska's rate was more than 2 times higher. Furthermore, Alaska's mortality rates among these age groups were approximately 2, 1.3, and 2.5 times the Healthy People 2010 target, respectively.

Although mortality rates among Alaskan children are much higher than national rates and the HP2010 targets, the mortality rate among children ages 1-14 years has been declining. The last Needs Assessment identified a target of 33 per 100,000 population for the current time period, which has been met.

The following activities focus on reducing injury and mortality among Alaskan children, specifically highlighting those that address the leading causes of death among this age group. The Section of Community Health and Emergency Medical Services (CHEMS), Injury Surveillance and Prevention Unit (ISP) houses a position that focuses on childhood safety and injury prevention. ISP supports the Safe Kids Coalitions in Alaska. Through grants that were awarded by ISP the purchase of new playground equipment meeting Consumer Product Safety specifications, child restraints, educational materials, and personal floatation devices for community-supported Kids Don't Float stations was possible. By providing training for various community-based agencies throughout the State, ISP continues to be a central educational resource for Child Passenger Safety (CPS) instructors and technicians. There are various other CHEMS activities that address injury prevention and safety. Injury Prevention in a Bag provides safety

education and devices to high-risk families through home visitation by training groups like Healthy Families, Head Start, and Village Health Aides. The Rural Smoke Alarm and Fire Prevention Program provides smoke alarm inspection, devices, and fire safety education and prevention to high-risk families – those that are low income or with children under the age of 5. The Urban Smoke Alarm and Fire Prevention Program provides devices to high-risk residences, such as multi-family dwellings, in the Anchorage, Fairbanks, and Juneau areas.

The Division of Behavioral Health funds rural communities in the prevention of suicide and increasing wellness and conducts suicide prevention and wellness conferences.

The MCH Epidemiology Unit produces fact sheets addressing overall mortality, unintentional mortality, and suicide among this age group and the last publication of the MCH Data Book included analyses for these topics. MCH Epidemiology is conducting an analysis of Youth Risk Behavior Survey data that examines the relationship between youth connectedness factors and suicide thoughts and behaviors.

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Alaska Title V Needs Assessment: Prioritization Process and Selection of State Performance Measures

Background

This document is a description of the prioritization process used by the Alaska Women's, Children's, and Family Health (WCFH) Section to select State Priorities and State Performance Measures that will be followed for the 2006-2010 cycle of the Title V MCH Block Grant. A summary of this document will be included in the Title V Needs Assessment, section 3.1, as required by HRSA.

The prioritization process consisted of four phases and took approximately five months to complete, beginning January 2005 and ending May 2005. During this period of time, 40 WCFH Fact Sheets were developed and distributed to focus group participants, an on-line survey was developed to rank order issues, four half-day Focus Group Meetings occurred, and several additional half-day and full-day meetings with State staff and the contractor took place. Through this process, which involved collaboration with dedicated stakeholders and WCFH State staff, ten State Performance Measures were developed.

Phase I

Phase I of the prioritization process consisted of topic selection, data gathering and analyses, and development and technical writing of Fact Sheets. We chose to use a modified Hanlon-Pickett method for ranking the issues (described in detail under Phase II), and the Fact Sheets had to be fully integrated with the survey design. For this reason Phase I was done in tandem with part I of Phase II, the design of the survey.

Topic Selection

Topics were selected by a committee of State staff from the Women's, Children's, and Family Health Section and an independent consultant contracted by the WCFH Section. There were two MCH Epidemiologists from the MCH Epidemiology Unit, one of which is also the State pediatric specialist; one representative from the Women's Health Unit; the WCFH Section Chief, and a statistician with data expertise in Alaska MCH issues.

There were four focus areas that issues were drawn from: Pregnant Women and Infants, Children and Adolescents, Children with Special Health Care Needs, and Women. Because of time issues not all selected topics could be addressed and presented through the process. Topics were narrowed down by identifying those that were most critical, those that were aligned with National and current State Performance Measures, and those that were the propriety of WCFH.

Final List of Issues – Attach Table

Fact Sheets

Fact sheets were developed for each topic that was identified by the WCFH committee. The fact sheet format was designed to provide the focus group stakeholders with information necessary to enable group discussions to determine a list of possible State priorities and State Performance Measures. Following our modified Hanlon-Pickett method, the Fact Sheets were comprised of three sections: Seriousness, Interventions and Recommendations, and Capacity. Information

presented in these sections would later be used in the survey to rank issues and assist in selecting priorities.

Seriousness

The section 'Seriousness' was comprised of five subsections: Healthy People 2010 and National Comparisons; Severity; Urgency; Disparities; and Economic Loss.

1. Healthy People 2010 and National Data provided comparisons for Alaska's most current data for the issue, national data, and Healthy People 2010 targets. The purpose of this section was to provide the focus group with the information to determine if the current status of the issue was serious compared to the Nation and the HP2010 goals and to give the focus group a baseline to determine status for Alaska.
2. Severity provided the focus group with the information to determine clinical severity of the issue. Information related to outcomes or outcomes associated with the issue was presented in this section, such as mortality rate, years of potential life lost, long term effects due to disease or chronic condition, etc.
3. Urgency consisted of Alaska specific data that described the current status of the issue. Where possible, trend analyses were provided to show increasing or decreasing trends, yearly percent changes. This section provided the information necessary for the focus group to determine if the issue was improving or worsening and if Alaska was moving toward the HP2010 target.
4. Disparities provided summarized analyses on subpopulations. Where possible and appropriate data, were analyzed and presented by race, sex, age, Medicaid status, and region. Alaska specific data was used primarily, with comparisons to national data when available. For those issues where Alaska data was not analyzed by subgroups, national data were presented.
5. Economic Loss contained information from literature reviews on the estimated cost of the issue at the community, State, or National level. Cost was usually the annual direct (such as medical expenses) and indirect (such as loss of work) estimates. Because of the inconsistent methodologies for health care cost estimates, this section attempted to provide the focus group with a sense of serious related to public dollars, however, it was not used to compare issues because of the nonstandard methodology for estimating cost from study to study.

Interventions and Recommendations

This section provided a summary of current interventions and recommendations made through policy statements and reviews by professional organizations such as the American Academy of Pediatrics, American College of Obstetricians and Gynecologists, Centers for Disease Control and Prevention, and the United States Preventative Task Force Committee.

1. Intervention Effectiveness was a subsection that summarized the effectiveness of the current interventions from literature reviews.

Capacity

The Capacity section provided information on the State's ability to address the issue through five areas, Propriety; Economic Feasibility; Acceptability; Resources; and Legality.

1. Propriety addressed whether the issue was within the scope of the overall mission of the Women's, Children's, and Family Health Section.

2. Economic Feasibility addressed the economic practicality of addressing the issue through associated costs and savings of program implementation and continued monitoring and analysis using programs that are already in place. We specifically tried to answer the questions: Does it make economic sense to address the problem/issue? Are there economic consequences if the problem is not addressed?
3. Acceptability addressed the likelihood of the target population and/or the community accepting addressing the issue, and whether the community views the issue as one needing to be addressed.
4. Resources presented information addressing the following questions: Are resources available to address the problem/issue? What existing State programs and services address the problem/issue?
5. Legality addressed whether current laws allow the problem/issue to be addressed and whether there statutory requirements, such as mandatory reporting of birth defects.

Data gathering process

An extensive data gathering process was undertaken in order to provide the information for the Fact Sheets, which will later be used to supplement the 2006-2010 Title V Needs Assessment. For every issue, the most current data available was obtained through data requests to State programs, National data systems were reviewed and queried, State and National surveys were analyzed, and extensive literature reviews of national reports and surveillance summaries, State annual reports and publications, and current peer-reviewed articles. Primary data sources included the Alaska Bureau of Vital Statistics, Alaska Pregnancy Risk Assessment Monitoring System, Alaska Trauma Registry, Alaska Maternal and Infant Mortality Review, Alaska Youth Risk Behavior Survey, Alaska Behavioral Risk Factor Surveillance System, and the National CSHCN Survey. Other data sources included the Office of Children's Services, several State registries such as Alaska Birth Defects Registry, Alaska Cancer Registry, and Medicaid.

Fact Sheet Write-up

Approximately 40 Fact Sheets were developed for the Needs Assessment process using the format outlined above. An original design was used for the Fact Sheets to identify them as a special series of fact sheets for the MCH Title V Needs Assessment. The Fact Sheets have received a lot of interest from the professional public health community as well as State program managers. Several of these Fact Sheets have been distributed at meetings by State program managers as a means of circulating their program data. The WCFH Fact Sheet was intended to be a medium to distribute data in an easily accessible and understandable format to a wide audience interested in MCH issues, to be useful in the public health community in addition to aiding stake-holders in prioritizing performance measures.

Phase II

Phase II of the prioritization process consisted of design, development, and analysis of the survey. As noted above, the survey design and development were done in tandem with Phase I.

Survey Design and Development

We utilized a modified Hanlon-Pickett method to design the survey. Focus group participants were asked to read the Fact Sheets and answer a corresponding survey for each issue, so

designing both the survey and the Fact Sheets simultaneously created a cohesive model that was easy for the Focus Groups to use and understand.

For efficiency with data collection and analysis, an on-line survey was used. (attach survey) Using a Lichart scale, participants were asked to rate the issues based on the separate components, or sections, outlined in 'Fact Sheet Design'. Designing the survey in this way allowed the flexibility to determine which subsections would be used in the analysis and the ability to determine a customized weighting scheme. Other benefits to this method and survey design were that it allowed the participants to rank the issues in a more objective way that was based on the data, as well as their professional experience and expertise.

Comments were solicited at the end of each survey for all issues.

Weighting scheme

Once the on-line surveys were completed the following sections and subsections were used in the ranking algorithm:

Seriousness

From Seriousness we used scores from 'Severity', 'Urgency', and 'Disparities'. We felt these subsections together would give an overall picture of how serious the participants viewed a particular issue. We decided not to use the subsections 'Healthy People 2010 Targets and National Data' and 'Economic Loss' in the weighting scheme since there was not consistent availability of data for comparability. For example, some issues did not have a HP2010 Objective and other objectives were in a developmental stage with no HP2010 target set. In some cases there was no national data for a direct comparison to State data. When issues received scores for 'Not enough information to rate' the 'Seriousness' score was inflated. 'Seriousness' comprised 60% of the total score, with equal weights to each of the subsections within 'Seriousness'.

Interventions and Recommendations

This section consisted of only one subsection. Participants were asked to rate the following question, 'Based on the available research and your professional experience and/or expertise, what is your opinion on how effective the intervention(s) might be in Alaska'. This section comprised 25% of the overall score. This question helped to focus on realistic priorities and goals.

Capacity

This section consisted of the subsections 'Propriety', 'Acceptability', and 'Resources'. These were asked as opinions of the participants, based on their knowledge and the information presented to them in the Fact Sheets. 'Capacity' comprised 15% of the total score, with equal weights to each subsection.

Analysis

The outcome of the surveys was not intended to serve as the decision of the Focus Group attendees for selecting State priorities and State Performance Measures, but to act as a starting point for the group discussion to help organize, group, and rank issues.

Individual surveys were scored following the protocol and weighting scheme described above, with each section having a score. A total score was developed for each issue by participant so we could determine the percentage of people identifying issues as #1, #2, etc.

An overall score and separate overall section scores were calculated at the focus group level for each issue. Overall scores were used to rank order the issues to determine the starting point for the discussion of priorities.

Phase III

Phase III of the prioritization process were the four half-day Focus Group meetings. The desired outcome of these focus groups were to identify potential State Performance Measures for each of their respective MCH populations that WCFH staff would review in order to develop ten State Performance Measures and identify State Priorities for the 2006-2010 Title V Block Grant cycle.

The State contracted a facilitator to lead and focus discussions during the meetings. The same facilitator was used for all meetings. All four Focus Group meetings used an identical format to present information and guide discussion. An epidemiologist from the Maternal and Child Health Epidemiology Unit was present at the meetings to assist the participants in defining performance measures by providing information on available data sources and limitations of data.

Attendee Representation

Attendees were selected for focus groups and asked to participate by the WCFH Section Chief. Selection was based on appropriateness of their background and expertise to the focus group population being addressed. Representation at the focus groups was broad, with a balance of professionals from the public health community, non-profit organizations, and medical community (public and private). (attach list of attendees and affiliation) include Parents, consumers

Presentation Overview

Each meeting began with two presentations. The WCFH Section Chief gave a presentation on the background and history of the Title V Block Grant which included requirements for the distribution of funds, explanation and background of State priorities and performance measures and the relationship of those to the goals and objectives for the meeting. The State contractor for the Title V Needs Assessment gave a presentation of the survey results. For each issue that ranked within the top 10 priorities, detailed information on the ranking by each section, percentage of participants that ranked the issue within the top 3, the current status of the issue as an indicator (i.e., whether it was currently monitored as a State Performance Measure or National Performance Measure and whether it had related Outcome Measures, Health System Capacity Indicators, or Health Status Indicators that were currently required by Title V Block Grant reporting), and the available data sources for the State. Limitations for data sources were not discussed during the presentation.

Pregnant Women and Infants

Survey Results

There were 18 issues for the Pregnant Women and Infants population. The top 10 issues from the survey were:

1. Prenatal Tobacco Use
2. Prenatal Alcohol Use
3. Newborn Metabolic Screening
4. FAS and Other Effects of Prenatal Drinking
5. Low Birth Weight and Preterm
6. Unintentional Infant Injuries
7. Fetal and Infant Mortality
8. Prenatal Care
9. Perinatal HIV
10. Maternal Illness and Complications During Pregnancy

Performance Measure Discussion and Selection

This group began by identifying issues that they considered to be addressed by programs or funds outside of WCFH and the Title V Block Grant or currently being sufficiently represented by the Title V Block Grant. They were Newborn Metabolic and Hearing Screening, Perinatal HIV, Fetal and Infant Mortality, and Breastfeeding. They grouped like issues into the following topic areas:

Prenatal Care and Life Style

1. Prenatal Alcohol Use
2. Prenatal Tobacco Use
3. Prenatal Marijuana and Cocaine Use
4. Maternal Illness and Complications During Pregnancy
5. Maternal Mortality
6. Maternal Mental Health
7. Oral Health (Maternal)
8. Family Violence: Family Violence was added by the group since it was not represented in the fact sheets, even though it is a serious issue that the group felt needed to be addressed.
9. Perinatal HIV: set aside
10. Breastfeeding: Breastfeeding rates in Alaska are very good – higher than the Nation and meeting HP2010 goals for initiation and continuation at 12 months. The group did not want to place emphasis on this issue since at this time it is being covered by WIC and it is not a critical issue in Alaska.

Low Birth Weight and Prematurity

Unintentional Infant Injuries

1. Infant Sleep Position
2. Infant and Fetal Mortality

FAS and Birth Defects

1. Newborn Metabolic Screening – set aside
2. Newborn Hearing Screening – set aside

Suggested State Performance Measures

- 1) Percentage of Alaskan women who receive at least adequate PNC be identified and specific barriers be identified or addressed.
- 2) Among women who receive any PNC, what was the difference in rates of tobacco use before, during, and after their pregnancies (since smokeless tobacco use is so high in Alaska, especially among Alaska Native women, tobacco use should not be limited to smoking cigarettes only).
- 3) Percentage of women who deliver preterm infants that report use of alcohol, cocaine, marijuana, or other substances during and after their pregnancies.
- 4) Percentage of infants killed or injured while being transported in modes of transportation other than car, van, or truck.
- 5) Prevalence of FAS and other effects of alcohol use in pregnancy (and/or track the number of women who give birth to more than one FAS child as a measure of current FAS media campaign effectiveness)

Women

Survey Results

There were 9 issues for the Women's population. The top 6 issues from the survey were:

1. STDs and HIV
2. Unintended Pregnancy
3. Breast and Cervical Cancer Screening
4. Contraception
5. Oral Health Care
6. Maternal Mental Health

Performance Measure Discussion and Selection

The following issues were added to the discussion since the group felt they were very important issues that were not addressed within the fact sheets:

1. Violence Against Women
2. Obesity
3. Substance Abuse
4. Cardiovascular Disease
5. Women as Caregivers
6. Coerced Sex

This group identified issues they considered to be addressed by programs or funds outside of WCFH and the Title V Block Grant or currently being sufficiently represented by the Title V Block Grant. These issues were subsequently set-aside.

1. Breast and Cervical Cancer Screening
2. STD and HIV

3. Contraception
4. Oral Health
5. Family Violence

Suggested State Performance Measures

The majority of the discussion was spent around Mental Health, which was what the group felt to be the single largest concern. The suggested performance measures around Mental Health were:

- 1) Compare the mental health status of women who have adequate versus inadequate prenatal care.
- 2) Look at the associations between the controlling partner and unintended pregnancy, substance use, and contraceptive use.

Issues and Concerns for this Population

Issues and concerns that came out of discussions with the Women's focus group were:

1. Lack of data for this population
2. Lack of reporting on the Hispanic population
3. Lack of non-state agency data sources

Suggestions were made that the State consider partnering with agencies that are doing work for BCHC to survey women about topics such as contraception use, unintended pregnancy, mental health issues, women as caregivers, etc.

Children and Adolescents

Survey Results

There were 16 issues for the Child and Adolescent population. The top 10 issues were:

1. Mortality and Injury
2. Maltreatment
3. Physical Activity
4. STDs
5. Access to Health Care
6. Overweight and Obesity
7. Nutrition
8. Teen Pregnancy
9. Early Identification and Intervention
10. Diabetes

Performance Measure Discussion and Selection

The focus group began by taking issues they felt were related and grouped them into three topic areas:

Physical Activity, Nutrition, Obesity, and Diabetes

A significant amount of discussion evolved around this topic area. The greatest concern was Obesity and the participants drew relationships between the issues in this topic area to obesity. Issues related to the obesity epidemic in Alaska follow:

- a. Access to fresh fruit and vegetables: rural communities have limited access to fresh fruit and vegetables and urban food banks have difficulty stocking fresh fruits and vegetables due to concerns about them being perishable.
- b. Food Stamps: limited funds for a budget that must stretch throughout the month. As a result, high carb and high fat foods that have a tendency to be more filling and less expensive are consumed more regularly. Families that are impoverished have access to less fresh food or healthy items.
- c. Lack of physical activity: schools don't require significant physical activity on a daily basis; several hours of daily television and computer use.
- d. Unhealthy food choices at school: high fat lunch and breakfast programs at school; vending machines with unhealthy snack choices which are used to subsidize school programs because of inadequate funding issues.
- e. Medicaid coding: Medicaid currently doesn't reimburse for a visit that is coded as an obesity visit. In order for providers to follow progress on weight issues they need to be assisted in their efforts by having indicators that are clearly noted reasons for follow-up and for reimbursement changes.
- f. Breastfeeding: Alaska has one of the highest breastfeeding rates in the Nation. Breastfeeding has been shown to be a protective factor for childhood obesity. This observation led to the interest in developing a performance measure around the timing of onset of becoming at-risk or obese.

Maltreatment, Youth Risk Behaviors, Violence, Morality and Injury, Teen Pregnancy, and Mental Health

A significant proportion of the discussion was spent around this topic area, especially issues of child maltreatment and its sequelae and mental health. The following were identified as issues surrounding this topic area:

- a. Access: lack of skilled providers in pediatric mental health; barrier to services due to state regulations that have narrow definitions for approved provider lists that aren't comprehensive – ie there may be providers with specialized training that would not be able to get on the provider list.
- b. Lack of clarity/definition about mental health: Although there was group consensus that mental health issues need to be explored further and that it was an extremely important issue, lack of a clear definition and the inability to narrow the definition impeded further development of this issue into a performance measure. The following suggestions were made:

Early Identification and Intervention, Health Care Access, Asthma, Oral Health, Cancer

Suggested State Performance Measures

- 1) Percent of children at-risk or obese at 12 months, age 3, age 5, age 12, and age 14.
- 2) Number of children on psychotropic medications (Medicaid data source)
- 3) Ratio of the number of children needed mental health services to the number of specialty providers trained in pediatric mental health.

- 4) Percent of children with Individual Education Plans that are getting access to the treatment recommended for them.
- 5) Standardize the OCS questionnaire used for evaluation of families with reports of harm and track mental health question responses.
- 6) Improve primary care provider awareness of screening and interventions to facilitate the providers' role in providing assistance.

Children with Special Health Care Needs

Survey Results

There were 8 issues for the CSHCN population. The top 6 were:

1. FAS and Other Effects of Prenatal Alcohol Exposure
2. Mental Health
3. Issues of CSHCN
4. Obesity
5. Early Identification and Intervention
6. Oral Health Care

Performance Measure Discussion and Selection

The CSHCN group began by identifying priority areas that were not represented by current data and fact sheets.

1. Access
 - a. Limited in-state providers to make diagnoses
 - b. Funding issues related to travel
 - c. Limited interventions available from specialists and ancillary providers – some not up to date in areas of expertise
 - d. Access issues in rural areas
 - e. At-risk children are on hold due to not meeting criteria for inclusion in services
2. Developmental Disabilities
3. Underinsured and Uninsured: There was a lot of emphasis and concern with issues around insurance, as it severely impacts all other aspects of health issues.
4. Autism
5. Respite
6. Change mental health to include behavioral health

Although FAS and Other Effects of Prenatal Alcohol Exposure was ranked as the number one issue (with 78% of focus group participants ranking this issue within the top three), the group opted to not focus on this area for an additional Title V performance measure.

There was a lot of discussion around mental health and related issues. The group consensus was that this was an extremely important issue that needed to be addressed; however, lack of a clear definition for this broad topic as well as available or potential data sources impeded further discussion of creating/defining a performance measure around mental health.

Oral Health: A significant amount of discussion time was placed around Cleft Lip and Palate. Major issues identified by the focus group within this context were:

1. Loss to follow-up
2. Self-esteem and the potential life-long impacts
3. Insufficient number of providers that can treat cshcn

Suggested State Performance Measures

- 1) Mental Health: Percentage of children with a mental health disorder.
- 2) Oral Health: Explore the possibility of estimating the number of children with Cleft Lip and/or Palate that are lost to follow-up.
- 3) Early Intervention and Identification: Percentage of children identified as at-risk for developmental delay who don't meet Part C criteria to determine:
 - i. if they are being served
 - ii. what services they are getting
 - iii. the frequency of the services
 - iv. the percent that are underserved.
- 4) Access: Number of cshcn that leave Alaska for services (possibly categorized by necessity, such as 'lack of specialty providers').

Phase IV

Phase IV of the prioritization process involved several meetings with the WCFH Section Chief and State staff from the MCH Epidemiology Unit. The MCH Epidemiology Unit plays a critical role in the data coordination efforts for the Title V Block Grant Application, as well as being the entity at the State level that monitors and analyzes MCH data and emerging issues. Several of the data sources that are necessary for the State Performance Measures are directly from programs in the MCH Epidemiology Unit (i.e., PRAMS, FASSP, MIMR, etc) and participation of those program managers were critical in defining the final version of the State Performance Measures. Also, this is the only unit within Public Health that has the capacity, expertise and ability to understand and critically evaluate and analyze MCH data, data sources, and potential data source issues.

DRAFT of State Performance Measures

- 1) Mean number of weeks between when a woman reports that she was sure she was pregnant and when her first prenatal visit occurred.
 - a. Data Source: PRAMS
 - b. Data Issues: Estimates are among women who delivered a live-birth and data is approximately 2 years behind what is requested by the block grant application.
- 2) Percentage of those who say their physician or health plan would not start prenatal care when they wanted to start.
 - a. Data Source: PRAMS
 - b. Data Issues: Estimates are among women who delivered a live-birth and data is approximately 2 years behind what is requested by the block grant application.

- 3) The proportion of women who smoke cigarettes and received counseling from their health care provider to stop smoking during their pregnancy compared to those whose smoke and did not receive counseling.
 - a. Data Source: PRAMS
 - b. Data Issues: Estimates are among women who delivered a live-birth and data is approximately 2 years behind what is requested by the block grant application.
- 4) The percentage of women who report their health care provider advised them to not drink alcohol during their pregnancy.
 - a. Data Source: PRAMS
 - b. Data Issues: Estimates are among women who delivered a live-birth and data is approximately 2 years behind what is requested by the block grant application.
- 5) The percentage of women who report having a controlling partner over the previous 12 months who report this pregnancy was unintended.
 - a. Data Source: PRAMS
 - b. Data Issues: Estimates are among women who delivered a live-birth and data is approximately 2 years behind what is requested by the block grant application.
- 6) The percentage of women who reported they always or often felt down, depressed, or hopeless.
 - a. Data Source: PRAMS
 - b. Data Issues: How often does this question cycle?
- 7) The percentage of preschool/daycare centers who offer snacks or meals and include fruits and vegetables in the what is offered.
 - a. Data Source: Unknown
 - b. Data Issues: Unknown
- 8) The percentage of 6 year olds with Fetal Alcohol spectrum disorder and received Medicaid services who report at least one medical/therapeutic visit in the areas of speech/language, audiology, physical therapy or occupational therapy.
 - a. Data Source: FASSP and Medicaid
 - b. Data Issues: Small numbers
- 9) The percentage of infants who are reported to have a Cleft Lip/Palate defect who access the WCFH sponsored Cleft Lip and Palate Specialty Clinic within the first year of life.
 - a. Data Source: Alaska Specialty Clinics Program
- 10) The percentage of high school students whose parents discuss school at least 2 times per week.
 - a. Data Source: Youth Risk Behavior Survey
 - b. Data Issues: Survey cycles every other year – available in odd years only.

Appendix B

Alaska Title V Needs Assessment List of Issues by Focus Group

<p>Focus Group 1: Pregnant Women, Mothers, and Infants</p> <ul style="list-style-type: none"> Prenatal Care Dental Health Services to Pregnant Women Domestic Violence Screening, Intervention, and Referral Prenatal Tobacco Use Prenatal Alcohol Use Prenatal Marijuana & Cocaine Use Perinatal HIV Maternal Illness and Complications During Pregnancy Maternal Mental Health Maternal Mortality and Pregnancy Associated Mortality Low Birth Weight and Preterm Birth Defects Fetal Alcohol Syndrome Fetal and Infant Mortality Newborn Hearing Screening Newborn Metabolic Screening Breastfeeding Infant Sleep Position and Co-Sleeping Unintentional Infant Injuries 	<p>Focus Group 2: Women</p> <ul style="list-style-type: none"> Breast and Cervical Health Care Screening Preconceptional and Interconceptional Care Maternal Mental Health Unintended Pregnancy Contraception: Access and Use Sexually Transmitted Diseases and HIV Domestic Violence
<p>Focus Group 3: Children and Adolescents</p> <ul style="list-style-type: none"> Mental Health Asthma Obesity Early Identification and Intervention of Children with Special Needs Oral Health Physical Activity Access to health care Teen Pregnancy & Sexual behavior Sexually Transmitted Diseases Child Abuse and Neglect Intentional Injury & Suicide Unintentional Injury Cancer Diabetes Nutrition Youth Risk Behaviors: Violence, tobacco, substance 	<p>Focus Group 4: Children with Special Health Care Needs</p> <ul style="list-style-type: none"> Asthma Obesity Oral Health FAS Cancer Diabetes Issues of CSHCN: Access to Care, Financial Impact on Family, Insurance Mental Health

Appendix C

Alaska Title V Needs Assessment List of Focus Group Attendees with Affiliation

Pregnant Women and Infants Focus Group

Baldwin, Margaret	CNM	Certified Nurse Midwife and Nurse Practitioner at the Alaska Native Health Center and Women's Health Clinic at Native Primary Health Center
Lou, Lily	M.D.	Neonatologist at the Level III NICU at The Children's Hospital at Providence
Bieganski, Jeannie	RN	Neonatal nurse and former perinatal case coordinator at the Level III NICU at TCHAP
Heynen, Nancy	RN, MPH	Clinical Nurse Specialist and Lactation Consultant at The Children's Hospital at Providence-Perinatal Services
Golden, Debbie	RN	Director of Professional Education for the March of Dimes Perinatal Specialist and Manager of the OB triage and outpatient Maternal-Fetal Assessment Center
Nix, Devon	RNC	Director of Women's and Children's Inpatient Services at Alaska Native Medical Center
Hansen, Deborah	RNC, MSN	Medical Social worker for the Children's Hospital at Providence with an emphasis on the NICU and Perinatal services
O' Donnell, Allison	MSW	Manager of the Healthy Families Alaska program for Catholic Social Services.
Snyder, Jackie		
Edwards, Lisa	RN-PHN	Public Health nurse with the muni of Anchorage
Paschke, Vera	MS, CDC II	Program manager and clinical therapist with program designed for Alaska Native women with substance abuse problems.
Heiberger, Georgia	RN, PhD	Maternal child professor at UAA school of nursing program

Women's Health Focus Group

Baldwin, Margaret	CNM, MSN	Certified Nurse Midwife and Nurse Practitioner at the Alaska Native Health Center and Women's Health Clinic at Native Primary Health Center
Hiratsuka, Vanessa		Provider in the Wise Women program focused on healthy lifestyles for women.
Griest, Carol		Provider in the Wise Women program focused on healthy lifestyles for women.
Hansen, Deborah	RNC, MSN	Director of Women's and Children's Inpatient Services at Alaska Native Medical Center
Feaster, Cathy	RN, MSN	Manager of the Reproductive Health Clinic at the Muni of Anchorage
Masaric, Gloria	RN	RN manager of the Blue Cross TriCare program
Chavez, Lupe		Manager of the Breast and Cervical Cancer Screening program at the YWCA
LeClarie, Sondra		Employee at the Women's Shelter
Paschke, Vera	MS, CDC II	Program manager and clinical therapist with program designed for Alaska Native women with substance abuse problems.

Alaska Title V Needs Assessment List of Focus Group Attendees with Affiliation cont.

Children and Adolescents Focus Group

Rockcastle, Lois	RN, MSN	Advance nurse practioner with experience in Bethel and Anchorage working with Alaska Native population.
O'Gorman, Trish	RN	Nurse who works with the Anchorage School District homeless children
Myers, Michelle	M.D.	Pediatrician and Chief of Pediatrics and Alaska Native Medical Center
Bates, Janice	RN, MSN	Unable to participate in the focus group, but offered her comments. She is head of school nursing for the Anchorage School district.
Ebelacher, Cynthia	ANP	Pediatric Nurse Practitioner in private practice
Jackson, Suzi	RN	Executive Director of the Alaska Allergy and Asthma Association
McMurren, Christie	MSW	Medical Social worker for the Level III NICU at The Children's Hospital at Providence in Anchorage-States Regional Perinatal Center
Franks, Anna	Exec. Dir.	Executive Director of Planned Parenthood in Alaska
Kennison, Donna	RN	Pediatric RN and Case Manager for Children with Special Health Care needs at Alaska Native Medical Center
Pitts, Shirley	MSW	Former Executive Director of Rural Cap-Head start and currently Health program manager for the Early Childhood Comprehensive Systems Grant in the Office of Children's Services
Coopes, BJ	M.D.	Medical Director of the Pediatric Intensive Care Unit at the Children's Hospital at Providence and Pediatric Intenseivist.
Kittoe, Rita	RN	Long time pediatric and intensive care nurse with inpatient and clinic experience in the private setting. Currently a Public health nurse for the Municipality of Anchorage Community Health Services
Hanley, Rachael	RN	Public Health nurse for the Muni. Of Anchorage
Berline, Dee	Manager	Occupational Therapist and one of the manager at the program for infants and children the local early intervention provider and largest provider in the state.

Children with Special Health Care Needs Focus Group

Kesler, Ken	MD	Neonatologist for Providence Level III NICU and Alaska Regional Level II nursery. Interested in long term followup of NICU graduates.
Jacob, MaryAnn	MD	Pediatrician in Private Practice who has a large number of children with special health care needs
Kennison, Donna	RN	Pediatric RN and Case Manager for Children with Special Health Care needs at Alaska Native Medical Center
Smart, Jayson		Parent of CSHCN. Executive Director of Stone Soup a private non profit designed to develop systems of care that improve the ease of which parents of CSHCN can assess services.
Kittoe, Rita	RN	Long time pediatric and intensive care nurse with inpatient and clinic experience in the private setting. Currently a Public health nurse for the Municipality of Anchorage Community Health Services
Hanley, Rachael	RN	Public Health Nurse of the Muni of Anchorage
Alley, Kathy	BS	Parent of CSHCN. Health Planner for the State of Alaska
Bendersky, Judith		Governor's Council onSpecial Ed. And Disabilities Health Planner for the State of Alaska Governor's Council on Special Ed. And Disabilities
Scott, Cheri		Parent of CSHCN. Senior Parent Navigator for Stone Soup with focused responsibilities on FAS and FASD, Cleft Lip and Palate and Newborn Hearing Screening.
Tynan, April		Parent of a child with mulitiple complex health needs
Kaplan, Beth		Family Care coordinator for CSCHCN at the Providence Neurodevelopmental Center

After reading the << insert title of fact sheet >> Fact Sheet, please answer the following questions:

The following section refers to the **Seriousness** of issues surrounding << modifier >> << topic >> :

Very Serious Serious Somewhat Serious Not Serious Not Enough Information to Rate

How would you rate.....

- 1) the status of << topic >> in Alaska compared to the Healthy People 2010 Goals?
 - 2) the status of << modifier >> << topic >> in Alaska compared to the Nation?
 - 3) the **severity** or the severity of outcomes associated with << modifier >> << topic >>?
 - 4) the **urgency** of addressing << modifier >> << topic >> in Alaska?
 - 5) << modifier >> << topic >> **disparities** in Alaska? (Disparities may include racial, age, socio-economic, regional, or education)
-

The following section refers to the **Effectiveness of Interventions** for addressing << modifier >> << topic >> in Alaska:

Very Effective Effective Somewhat Effective Not Effective Not Sure

- 6) Based on the available research and your knowledge and/or expertise, what is your opinion on how **effective the intervention(s)** would be in Alaska for addressing << modifier >> << topic >>?
-

The following section refers to Alaska's **Capacity** to address << modifier >> << topic >>.

Yes Somewhat No Not Sure

Do you think

- 7) << modifier >> << topic >> falls within the overall mission of Women's, Children's and Family Health?
- 8) the community views <<modifier >> <<topic >> as a problem in Alaska?
- 9) Alaska has adequate resources to address the <<modifier >><<topic >> issue? (Resources can be data sources, services, programs)

Appendix G

Survey Comments

FocusGroup	Topic	COMMENTS
Pregnant Women, Infants, and Mothers	Breastfeeding	Breastfeeding also decreases the incidence of diabetes. This protective effect appears to likely last throughout the child's life.
Pregnant Women, Infants, and Mothers	Breastfeeding	WIC is doing a great job!
Pregnant Women, Infants, and Mothers	FAS and Other Effects of Prenatal Alcohol Exposure	Because FAE is often diagnosed at school age. I suspect we have many more children who have been exposed and are experiencing difficulties than we know.
Pregnant Women, Infants, and Mothers	Fetal and Infant Mortality	Am glad MIMR has been reinstated. Am wondering about the effects of the scaling back of ABDR on collection of data related to infant and fetal mortality.
Pregnant Women, Infants, and Mothers	Infant Sleep Position	Co-sleeping is a cultural standard in much of the world. Continuing with education surrounding not co-sleeping with adults who are impaired is critical.
Pregnant Women, Infants, and Mothers	Infant Sleep Position	Defining unsafe co-sleeping is more nebulous than "Back to Sleep." All co-sleeping should not be discouraged.
Pregnant Women, Infants, and Mothers	Low Birth Weight and Preterm Birth	PREVENTION, PREVENTION, PREVENTION!!!!
Pregnant Women, Infants, and Mothers	Low Birth Weight and Preterm Birth	An additional factor that contributes to LBW babies is maternal medical complications. It would be interesting to know what percentage of these babies are being brought into the world for maternal indications early. Some of these babies will be potentially VLBW such as those born to mothers with hypertension.
Pregnant Women, Infants, and Mothers	Low Birth Weight and Preterm Birth	Alaska needs: -more public health nurses providing prenatal/child health education, support, and referral regarding the many topics that relate to prematurity and low-birth-weight -targeted programs for higher-risk groups, especially Black women -more training about smoking cessation for health care providers -Medicaid coverage for smoking cessation interventions
Pregnant Women, Infants, and Mothers	Low Birth Weight and Preterm Birth	Public awareness of the problem is lacking.
Pregnant Women, Infants, and Mothers	Maternal Mental Health	There is a lot of variability in ability to access mental health services for Alaskan women. It appears to me this variability has to do with the ability of the woman to pay for mental health services as well as where she lives, and also how culturally mental health services are accepted.
Pregnant Women, Infants, and Mothers	Oral Health Care among Pregnant Women and Women	Lack of oral health care availability in the rural areas of Alaska has been identified by the communities and tribal health leaders as an unmet need. Currently dental technicians are being trained, but this will only meet some of the needs for some of the folks who live rurally. It would be nice if DKC would cover more for women who need dental care.
Pregnant Women, Infants, and Mothers	Oral Health Care among Pregnant Women and Women	Am wondering what kind of access women living in rural Alaska have to dental care.
Pregnant Women, Infants, and Mothers	Perinatal HIV	Underreported.
Pregnant Women, Infants, and Mothers	Perinatal HIV	More testing sites needed.

Pregnant Women, Infants, and Mothers	Prenatal Alcohol Use	TV ads regarding drinking during pregnancy are good. Are they effective? I would guess that drinking is underreported in PRAMS data.
Pregnant Women, Infants, and Mothers	Prenatal Alcohol Use	I didn't answer all items because of seeming discrepancies between data sources -- this fact sheet, FAS fact sheet, and March of Dimes data. I will compare further before our meeting on Thursday and look forward to the opportunity for discussion and clarification.
Pregnant Women, Infants, and Mothers	Prenatal Care	Many of our moms in the NICU did not have adequate prenatal care due to illicit substance use, not insured, location, education etc.
Pregnant Women, Infants, and Mothers	Prenatal Care	I believe perinatal public health nursing services are an important aspect of prenatal care, especially for young Alaskan women and Alaska Native women. These services have been eroded over the years by decreased funding. Adequate public health nursing services do not exist.
Pregnant Women, Infants, and Mothers	Prenatal Care	More information perhaps could be targeted for women living rurally on the importance of early and adequate prenatal care. I suspect that one of the major reasons the numbers look worse for women living rurally may be that the birth takes place at a regional center, and records of visits that have occurred at the village clinic may not be transferred to the regional center to be counted as part of the birth certificate data, as has already been noted. I also suspect that the regions that currently have an active MCH prenatal program have better stats than those presented overall. I notice the adequacy of prenatal care began dropping in 1996 just around the time the Bethel area MCH prenatal program was closed.
Pregnant Women, Infants, and Mothers	Prenatal Care	Adequacy of prenatal care is related to two different problems--serving those mothers who do not have care available to them and motivating those who have access to care to actually utilize it.
Pregnant Women, Infants, and Mothers	Prenatal Care	Lack of demographic data by race, specifically, Hispanic women and children is a problem. In order to create specific and strategic outreach and educational materials and campaigns for interventions, we need this data for all racial/ethnic groups in our community. The lack of data collected for the Hispanic community is very disappointing.
Pregnant Women, Infants, and Mothers	Prenatal Marijuana & Cocaine Use	Working in an NICU, I see first hand the ill effects of prenatal marijuana and cocaine use. The most severe obviously is death. I feel personally that in the last year I have seen more incidents of prenatal substance use.
Pregnant Women, Infants, and Mothers	Prenatal Marijuana & Cocaine Use	Since it appears that the overall use rates for 2002 are lower than they ever have been perhaps we are on the right track. However I am not sure we can celebrate yet with only one year of reports indicating this trend. Time will tell.
Pregnant Women, Infants, and Mothers	Prenatal Tobacco Use	There is no question that prenatal tobacco use has potentially very serious consequences for both mom and baby.
Pregnant Women, Infants, and Mothers	Prenatal Tobacco Use	More money should be allocated for stop-smoking programs with proven effectiveness.
Pregnant Women, Infants, and Mothers	Unintentional Infant Injuries	The modes of transportation used rurally in our state are not child safety friendly. Also the distances needed to travel for in-hospital emergency care in the event of an accident are often great and weather dependant.

Women	Breast and Cervical Cancer Screening	the diminished funding from CDC to the SOA via the NBCCEDP grant and limited mammography services available at many rural locations creates a huge access to services issue for breast cancer screening. case management is also an issue for both breast and cervical cancer early detection.
Women	Breast and Cervical Cancer Screening	<p>One-on-one outreach and education efforts have proven to be effective in reaching medically underserved and in getting them for breast and cervical cancer screening services. However, more resources are needed. The type of interventions that are proven to be effective are time and labor intensive... more man power is needed out in the streets, directly reaching out to women. We also need more educational and outreach materials in different languages to use with populations that do not speak English or who's English is not their primary language.</p> <p>Other serious barriers to screening that need to be addressed, that merit more funding include: transportation, time off from work for medical appointments, and language interpreters/translators.</p> <p>It is also very dissapointing that the racial demographic data collected and reported continues to leave out, doesn not include data for Hispanic women in our state.</p>
Women	Breast and Cervical Cancer Screening	
Women	Breast and Cervical Cancer Screening	I believe that a commitment exists in the private sector to continue to support education/advocacy/research and screening for breast and cervical cancer in Alaska. Access to affordable health care is definitely a percieved need in the community. The success of the public/private and nonprofit partnership over the last 10 years to implement screening /treatment for Alaska's women seems to be making a difference. In my opinion it would be foolish to not do everything possible to continue this effort - i.e. secure maximum level of federal dollars and matched state funding along with private sector commitment to support the effort.
Women	Contraception	Low cost or no cost contraception and emergency contraception should be available to everyone who wants it.
Women	Contraception	<p>I believe women in general feel that there is NOT adequate access to family planning services. In general, men, legislators and our contry's current adminstration are ignornat or don't care for religious reasons, that there is inadequate access to and improper use of contraception.</p> <p>I think local and state health departments need to get more creative and be more agressive about getting information out to the general public and to legislators about the reality of the situation. I think the public support would be there, but the public must first be educated on the topic.</p>
Women	Maternal Mental Health	If women have abusive partners, they are at a greater risk of being abused when they are pregnant. For this reason, screening for domestic violence by providers of maternal health care can assist providers in working with the woman to determine her risk of PPD.

Women	Maternal Mental Health	This is a very serious issue that if properly addressed would go a long way in improving the overall health of women and children in our state. In the past ten years of working directly with teenagers and women of all ages and racial and socio-economic backgrounds, depression and other mental health issues is something that keeps coming up as an issue and concern for Alaskan women - the long, dark, cold winters and the isolation that many women experience contribute a lot to this problem and it is even harder for immigrant women from other countries - yet there are very few resources available to address these problems. There are now support groups in our communities that specially address this issue, that I am aware of. Something definitely needs to be done.
Women	Oral Health Care among Pregnant Women and Women	tobacco cessation efforts in Alaska are getting to be more integrated but have a long way to go, especially in the rural regions. as integrated clinic based efforts are institutionalized, the rates of tobacco use for women and for perinatal women should decrease.
Women	Oral Health Care among Pregnant Women and Women	bringing the information to the public schools and daycare facilities should be up there for prevention of tooth decay or loss
Women	Oral Health Care among Pregnant Women and Women	This is an important issue that has not gotten a lot of attention in the media. I believe the average person in the state is not aware of current data and the disparities in screening and access to oral screening in the community and the negative effects it has to the health of women and children. I think a state wide campaign would go a long way in educating people on the importance of oral health care.
Women	Sexually Transmitted Diseases and HIV	The "no" answer under #9 refers to the fact that suggested interventions involve both education about abstinence and education about effective methods of practicing safe sex. If the state receives continued funding for abstinence but does not combine that with funding for education regarding safe sex practices, it appears that Alaska would not have adequate resources to address Sexually Transmitted Diseases.
Women	Sexually Transmitted Diseases and HIV	More advocacy is needed to educate our legislators about the importance of public outreach and education and more funds are needed to the youth in our community.
Women	Unintended Pregnancy	I guess to me it is not just offering contraceptives but considering how planning comes into play behaviorally with unintentional pregnancy that is the issue. The fact sheet did not address and research that has occurred in the state on the planning/forecasting issue.
Women	Unintended Pregnancy	I feel that women should be able to make the choice of terminating the unintended pregnancy
Children and Adolescents	Access to health care	What high school has the school-based clinic?
Children and Adolescents	Access to health care	Oral health care access and mental health care access lag behind in AK, adversely affecting many young children and adolescents on issues that are often preventable. Size of state, travel cost, distance, weather and limited facilities are extreme factors that affect Alaskans from getting care that is more accessible in other states..
Children and Adolescents	Access to health care	Our governor and legislators don't seem to feel that the poor and uninsured children are a priority when they reduce the number of families that are eligible for DKC

Children and Adolescents	Asthma	I thought students were able to carry their asthma meds with them at school as long as they had MD permission.
Children and Adolescents	Asthma	asthma is very serious, however it seems that most providers are able to provide families with good information and medication. Hospital admissions are high for asthma or resp illnesses. Children/adol need to be able to carry rescue meds on their persons, even at school
Children and Adolescents	Cancer	I have little knowledge about this area.
Children and Adolescents	Cancer	would love to see ongoing community collaboration across town to work on Pediatric Cancer
Children and Adolescents	Cancer	Although the number of children in AK with cancer is fairly low, every individual case of childhood cancer is devastating for both the family and the medical community serving them. Most all children dx with Cancer/Leukemia in Ak, must leave the state for medical dx and care..
Children and Adolescents	Diabetes	I have limited knowledge in this area.
Children and Adolescents	Diabetes	this ties nicely with the increased physical activity and obesity work. need for more community awareness to see that this is the result of the obesity
Children and Adolescents	Diabetes	More and more children just in the last one to two years are being dx with pre diabetes or type II DM. The part time endocrinologist in the state and the visiting endocrinologist to the state are very, very busy. More clinic times by these consultants will be needed. More physical activity programs, more nutritional education needs to be done to decrease obesity/diabetes in Ak
Children and Adolescents	Early Identification and Intervention of Children with Special Needs	many children need services early on-but due to funding issues do not always get the therapies they need in a timely way. Often difficult for children from rural areas to get early intervention assistance due to travel restraints, funding and lack of manpower-therapists.
Children and Adolescents	Early Identification and Intervention of Children with Special Needs	We have a great early intervention program in place, but not enough providers to well implement the programs. Also the cut-off age of 3 years leaves a gap in provision of care that schools and other programs don't seem to pick up very well.
Children and Adolescents	Maltreatment	need more funding to help the OCS system to better protect our children
Children and Adolescents	Maltreatment	Long standing problem of maltreatment of children in Ak and we continue to be higher than the rest of the nation and it will be hard to meet the Healthy People goal of 2010. No easy answers....

Children and Adolescents	Mental Health	My 16 year daughter was recently diagnosed with depression, received in-patient services and now continuing with out-pt. services. I was surprised on the non-availability of adol. psychiatrists and counselors. (Long waits for appts, not taking new patients, etc...)
Children and Adolescents	Mental Health	difficulty finding appropriate services for children and adol with mental health needs-due to lack of providers and funding sources especially in rural areas even in times of crises, the child/adol may be on a wait list to receive appropriate mental health treatment
Children and Adolescents	Mental Health	We would have enough mental health care providers for the Medicaid eligible children in this state if Medicaid didn't insist that only child psychiatrists or providers who work with them can bill for mental health counseling services. There is a dearth of child psychiatrists in this state, so this arbitrary rule effectively leaves few mental health care providers for the large population that needs them.
Children and Adolescents	Mortality and Injury	Here in Ak we far exceed the rest of the nation and are not likely to meet the goals of 2019. Although most Alaskans know this is an issue, it was hard to see the numbers on paper of the seriousness against the rest of the nation..
Children and Adolescents	Nutrition	Access to good nutrition and adequate food is a significant challenge for students who are homeless.
Children and Adolescents	Nutrition	Easy targets like vending machines could go a long way
Children and Adolescents	Nutrition	Remote and rural areas lack in having sufficient fruit, vegetables and milk products to allow for healthy eating habits. Soda pop and chips are too easily attainable in those areas.
Children and Adolescents	Oral Health	There is limited access to dental care for children with Medicaid & DKC.
Children and Adolescents	Oral Health	Need more pediatric dentists especially to rural areas, need to increase insurance funding for dental access, need more early screening interventions. All children should have access to getting sealants.
Children and Adolescents	Overweight and Obesity	Extremely serious with bad long term consequences but an extremely difficult task to take on...but we have to.
Children and Adolescents	Overweight and Obesity	very high priority for state of ak. More and more children are overweight and will have chronic diseases much earlier in their life with complications and increase cost for health care.

Children and Adolescents	Overweight and Obesity	As long as our legislators make light of the enormosity of this problem, trivializing it by comparing it to the legislators' weight issues, then we won't get the serious help that we need to fight the problem in Alaska.
Children and Adolescents Children and Adolescents	Physical Activity Physical Activity	ways to get parents physically active & fit! I think the schools can lead this change by incorporating increase PE time during the school day and requirements at the secondary level.
Children and Adolescents Children and Adolescents	Physical Activity Physical Activity	Important to encourage more Physical fitness for everyone starting today. More chronic diseases at earlier ages will be seen with the increase in diabetes and obesity. Task force on PE and Obesity is going to be important to look at all these issues. Community must work together.
Children and Adolescents Children and Adolescents	Sexually Transmitted Diseases Teen Pregnancy	how accurate are the urine-based chlamydia & GC tests? While teen pregnancy is declining, low-income girls are still overrepresented and this event severely limits opportunities that allow them to achieve financial independence and impacts life-chances for them and their children.
Children and Adolescents	Teen Pregnancy	Our state seems to be doing better in this arena than many other states, Keep up the good work. Educate the teens, allow schools to talk with teens, teen clinics.
Children and Adolescents	Youth Risk Behaviors (Tobacco, Alcohol, Substance Use)	Is the Healthy People goal realistic??
Children and Adolescents	Youth Violence	seems to be creeping up on us and becoming more and more of a problem
Children with Special Health Care Needs	Access to Care	"Access to Care" is the number one problem because, in my opinion, it includes issues of the uninsured and the underinsured. (Note there was no fact sheet on this point.) I realize that children with special health care issues generally have access to public funds, such as Medicaid and Denali Kid Care, but the whole problem of the uninsured and underinsured, snowballs and greatly affects the health care for all populations. I don't believe that the problem is any greater in Alaska than it is anywhere else in the country, but I do believe that each state has some options to address these issues within its borders.
Children with Special Health Care Needs	Asthma	I really don't a lot about asthma, but I suspect it is a bigger problem than most know. I suspect that a lot could be done with educating the public about the issues and treatments available. And of course, the evils of air pollutants can never be overestimated, specifically tobacco and marijuana.

Children with Special Health Care Needs	Asthma	This is an area where education of professionals, parents and patients in appropriate interventions makes a difference!
Children with Special Health Care Needs	Asthma	public education regarding severity of asthma needed first responders knowledge is important especially in rural areas. More asthma specialists-pulmonary providers needed More overall education-triggers,use of inhalers on self at schools etc.
Children with Special Health Care Needs	Asthma	Families who go to asthma training programs seem to do a lot better managing their asthma and especially their medications in my experience. The cost of the training can be less than one emergency room visit, very economical.
Children with Special Health Care Needs	Cancer	Families of children with cancer should receive support and services. The public should be continually educated that "yes" childhood cancer happens to Alaskan kids too.
Children with Special Health Care Needs	Cancer	The Children's Hospital at Providence recently lost a pediatric oncologist. Children often have to go to Seattle for treatment.
Children with Special Health Care Needs	Cancer	children dx with cancer in Ak most often have to leave the state for treatment. Expensive medical treatment for a small number of children affected and includes traveling away from community. No Hem/Onc pediatric specialist within the state
Children with Special Health Care Needs	Cancer	Emphasis should be on decreasing secondhand smoke exposure.
Children with Special Health Care Needs	Children with Special Health Care Needs	Question 9 is not clear to me. I'm not sure if you're asking if Alaska has adequate resources to address the issues and USING those resources, or if it has the resources but perhaps is not allocating them to address the issue. Judith
Children with Special Health Care Needs	Children with Special Health Care Needs	Access to care, funding, speciality services still a problem for most families. Respite, adaptive equipment, therapists often not available.
Children with Special Health Care Needs	Children with Special Health Care Needs	Extremely surprised Stone Soup Group is not listed as a Resource.
Children with Special Health Care Needs	Children with Special Health Care Needs	There seems to be a great need for respite workers to give parents a break. The system for distributing durable medical equipment is not working in the State's best interest. At least in Anchorage, the physician is sent a list of requested DME by a vendor (not exactly a party motivated to decrease costs). Doctors are usually too busy to review the list in detail (we are paid nothing for doing so) and even when they do, often aren't sure if or why all these items (dozens of "reusable" bed pads or thousands of sanitary wipes or long lists of parts for wheelchairs) are really necessary. A neutral educated person to consult about this, and reasonable limits on amounts of DME, are needed.

Children with Special Health Care Needs	Diabetes	Education, educate, educate about good nutrition, exercise, and problems resulting from being overweight. Alaskans need to know about the types of diabetes and families who are faced with it need support and services.
Children with Special Health Care Needs	Diabetes	This topic should be linked to obesity. Recreational opportunities should be supported for Alaskan children -- especially opportunities for children from lower socio-economic families.
Children with Special Health Care Needs	Diabetes	many more children are becoming pre-diabetic with insulin resistance and go on to being dx with type II diabetes if access to physical activity programs/good nutrition and medical care are not available
Children with Special Health Care Needs	Early Identification and Intervention of Children with Special Needs	A large fraction of children with special needs can be identified by biological risk factors identified at birth. These are compounded by environmental risk factors. Effectiveness of early intervention for at-risk infants is higher for those with high environmental risk and moderate or low biological risk, than for those with high biological risk and low environmental risk. This fact should help guide efforts toward those infants/families that can be most impacted by early intervention evaluation and services.
Children with Special Health Care Needs	Early Identification and Intervention of Children with Special Needs	It has been shown that early intervention saves resources, human and fiscal. This is an on-going area that must not be neglected.
Children with Special Health Care Needs	Early Identification and Intervention of Children with Special Needs	Access to early intervention services vary from rural to urban areas. Shortage of professionals to follow children is a concern for children with significant delays. For example: children diagnosed with Autism at 2 1/2 and families return to rural areas they may have scarce access to support -- which is discordant with the current research on interventions for young children with autism spectrum disorders. The State's narrow definition of eligibility impedes access to children who have less severe delays, but may show great improvement with intervention.
Children with Special Health Care Needs	Early Identification and Intervention of Children with Special Needs	kids may be identified early but difficult accessing appropriate intervention programs. treatment programs very expensive for a small percentage of all children effected and tie up lots of programs monies.
Children with Special Health Care Needs	Early Identification and Intervention of Children with Special Needs	alaska needs more MD's with neurodevelopmental as their speciality.
Children with Special Health Care Needs	Early Identification and Intervention of Children with Special Needs	Program for Infants and Children in Anchorage does a great job.
Children with Special Health Care Needs	FAS and Other Effects of Prenatal Alcohol Exposure	We have to put out money and time here!! The facts speak for themselves and Alaska has a dismal record on this subject. Not enough can be done to educate and keep the word in front of the public.

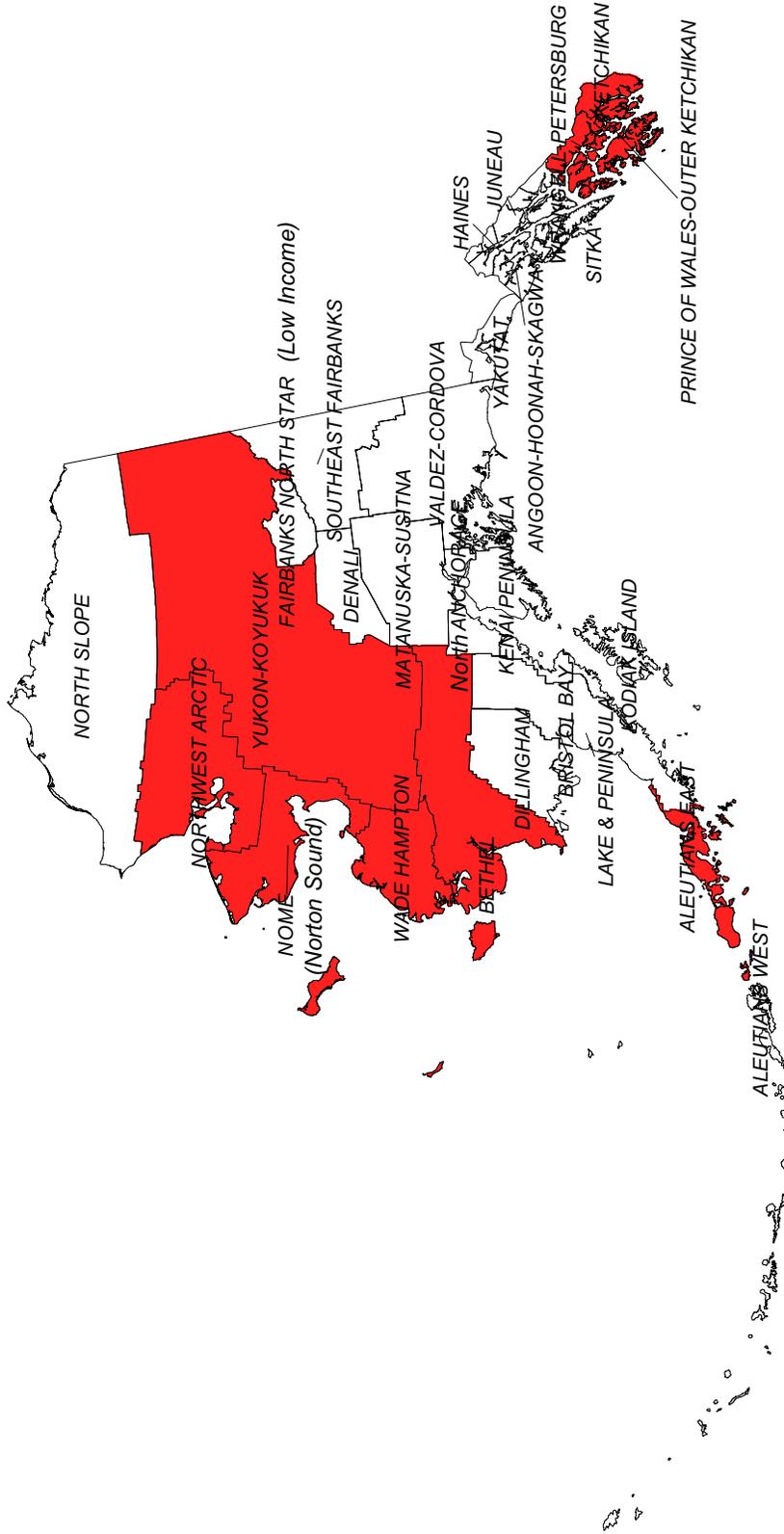
Children with Special Health Care Needs	FAS and Other Effects of Prenatal Alcohol Exposure	FAS is a complex issue requiring a multi-prong approach: from addressing alcohol use child-bearing age adults in the state to working with children effected with FAS/FAE. There is a need for a great deal of education of health professionals working with pregnant woman -- not only to discuss the dangers of pregnancy and drinking -- but to educate and provide appropriate support for preganant women and their partners. Many of the issues around alochol are MAJOR public health issues related to a healthy quality of life for Alaskans.
Children with Special Health Care Needs	FAS and Other Effects of Prenatal Alcohol Exposure	State has been able to train teams of providers throughout the state by working with Seattle-Univ of Washington, but then trained teams in the rural areas seem to dissolve or be not accessible, as team members move, do other jobs, no funding to keep the program working. Wait list for children to be evaluated is long and time is lost-often without a dx, children don't get services they need.
Children with Special Health Care Needs	FAS and Other Effects of Prenatal Alcohol Exposure	Alaska has some of the most progressive programs and systems to address FASD related issues, prevention, diagnosis and intervention. However, funding for ongoing program support is seriously threatened, thus reducing adequate "resources".
Children with Special Health Care Needs	FAS and Other Effects of Prenatal Alcohol Exposure	This problem is so difficult that I believe there should be free alcoholism treatment for all pregnant women AND any evidence of alcohol abuse when pregnant (elevated blood alcohol level) would be treated by enforced residential treatment for the duration of the pregnancy. It would be cheap compared to the price we are paying as a State to try to educate, socialize and house these children. Looking at the big picture (the cost per child over the course of a lifetime), the enforced residential treatment would be cheaper.
Children with Special Health Care Needs	Links to Services	If families don't know what resources are available, they can't access them. This needs to be an on-going and ever viligant issue. New parents, new citizens to the state, and families new to a special needs situation are examples of on-going populations that need to be educated about services. All of the wonderful programs in the world are of no use to anyone if he or she doesn't know about them. The medical community also cannot refer people to programs and services if they are unaware of what is out there. My experience has been that there is no clear directive or guidance to walk families through the maze of prgrams and how they interact with each other. (Also, families need to be taught about public fiscal responsibilities concerning the options of public services. A lot could be done in this area! Nothing is free and I think that needs to be said more. If a family with a special needs child wastes resources because they are available, then somewhere down the road there is less for schools and other interventions, for example.) (Please note, the fact sheet was unavailable when I completed this survey.)

Children with Special Health Care Needs	Mental Health	Mental Health issues are one of the biggest health problems facing our nation. There is a ripple effect that affects our whole community, specifically schools, detention centers, prisons, employment, families' solidarity and health, etc. The suicide rate is alarming. Drug and alcohol abuse are ongoing problems that ripple out to all parts of society: FAS, suicide, domestic violence, etc. The list is endless.
Children with Special Health Care Needs	Mental Health	There is a shortage of child mental health clinicians throughout the State of Alaska. Clinicians that can address the issues of children with emotional health disorders and developmental issues is even scarcer. There is also a need for clinicians that can work with children and adolescents that are nonverbal. Addressing mental/behavioral health issues in rural Alaska is also a great need. Funding and insurance issues is another obstacle to obtaining mental/emotional/behavioral health services for children and adolescents.
Children with Special Health Care Needs	Mental Health	the needs are great for these children and adolescents but not enough of trained providers to diagnose,treat,counsel or educate Bring the Kids home sounds great-costly either way Rural areas especially lacking in services and having trained providers
Children with Special Health Care Needs	Mental Health	We desperately need more in-state QUALITY mental health counselors, psychologists, psychiatrists, and treatment facilities for children. Maybe state could subsidize in some way? Student loan forgiveness for coming to Alaska? Maybe more regional facilities out in the Bush? Or dedicated multidisciplinary teams that are responsible for say, ten villages and go to each one once every 2 weeks? More focus on alcohol treatment leads to fewer alcoholic parents leads to less domestic violence and poor parenting leads to fewer kids with conduct disorders, FAS, sexual abuse and post-traumatic stress disorder. (Prevention vs.treatment)
Children with Special Health Care Needs	Oral Health	I am happy to see this on the list, because I probably would not have thought about it! Toothbrushes and floss are cheap compared to having a cavity filled. Young children can be taught to care for their teeth, even if it is not emphasized in their home. A big "yes" to this subject. Oral health is an issue that effects everyone, not just the child with special needs. This subject is closely linked to good nutrition and to obesity issues. Oral health affects the whole body. An ounce of prevention is definitely worth a pound of cure when it comes to oral health.
Children with Special Health Care Needs	Oral Health	Major issues are lack of pediatric trained professionals, professionals that take medicaid and access to care for families that are underinsured.

Children with Special Health Care Needs	Oral Health	Not enough trained dentists in pediatrics to take care of CSHCN-often takes more time, medication-sdation issues, patience and cost more money. Poor oral health can be a factor in other medical conditions that most people aren't aware of. Need preventive hygiene-?school settings
Children with Special Health Care Needs	Oral Health	Is the ANMC Pediatric Residency you refer to, a dental residency? Perhaps the new "dental assistants" will be able to help the problems with poorer dental care in the Bush.
Children with Special Health Care Needs	Overweight and Obesity	Once again, the facts speak for themselves. Money put into education and programs is a win-win down the road.
Children with Special Health Care Needs	Overweight and Obesity	Limited access to Pediatric Endocrinologist in Ak. perception that School vending machines override health of children due to monies received. will need more CDE trained Dieticians/RN's as obesity #'s in children climbs More time for PE/physcialactivites in schools for all kids need buyin from communities, families, educators,providers that this problem is not going away
Children with Special Health Care Needs	Overweight and Obesity	Issues around childhood obesity and nutrition are complex and require a systemic approach to improvements, including fundamental issues such as nutrition options in schools and lifestyle choices for families and children. I believe the willingness to make changes at a community level is very low.
Children with Special Health Care Needs	Overweight and Obesity	Perhaps there could be increased state funding for any school that got rid of vending machines with unhealthy food. Physical education should be a daily feature of school for students of all ages. Breastfeeding promotion should be a major focus.

Alaska Mental Health HPSAs

(Designated HPSAs are shaded or points)



Source: State of Alaska, Dept. of H&SS, Division of Public Health, CHEMS Unit

The rest of this document contains the WCFH Needs Assessment Fact Sheets that were developed for the Alaska state-wide Needs Assessment and distributed to focus groups. Each MCH population is represented with a combined total of 40. Section B 3, A-C of the Needs Assessment is a summary of the analyses and narratives presented in these fact sheets.



Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 1

Prenatal Care in Alaska

Inadequate prenatal care, including late initiation of care, infrequent prenatal visits, or no care at all, is associated with poor infant and maternal outcomes. Good prenatal care includes screening for risk factors, providing prenatal counseling, and promoting healthy behaviors.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska [‡]	Nation [^]	Healthy People 2010 Goal [*]
Proportion of women receiving prenatal care in the 1 st trimester	80.1% (2003)	84.1%* (2003)	≥ 90.0%
Proportion of women receiving at least adequate prenatal care	58.3% (2002)	74.6% (2002)	≥ 90.0%

- Alaska has not made progress toward achieving the Healthy People 2010 goals for early or adequate prenatal care – both of these measures remain well below the 90% targets.
- Prenatal care in the first trimester among Alaskan women was slightly lower compared to the Nation as a whole.
- Compared to women in the U.S. as a whole, adequate prenatal care among Alaskan women was significantly lower.

Severity

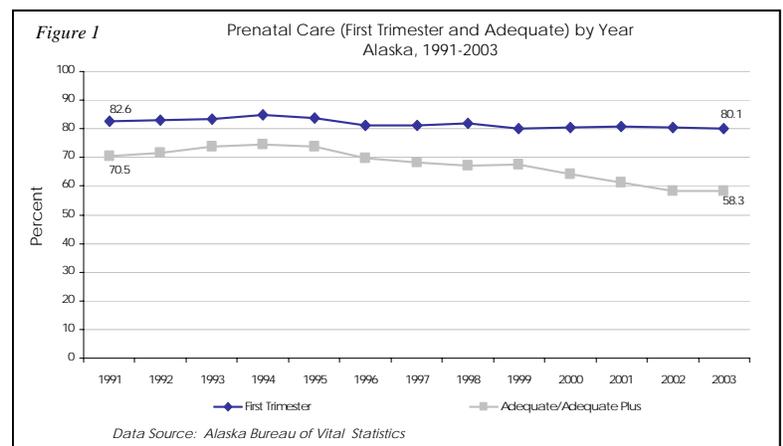
Mothers having late or no prenatal care are more likely to have low birth weight or preterm infants and are at increased risk for pregnancy-related mortality and complications of childbirth.

Urgency

- While the percent of Alaskan women receiving adequate prenatal care is declining, the percent of women who begin prenatal care in the first trimester is well below the Healthy People goal and has not made any improvements. (Figure 1) This decline in the reported quality of prenatal care is being investigated by the Maternal and Child Health Epidemiology Unit and the Alaska Bureau of Vital Statistics.
- Nearly 1 in 3 Alaskan women that delivered an infant received less than adequate prenatal care and nearly 1 in 7 received inadequate care or no care at all. (Figure 2)

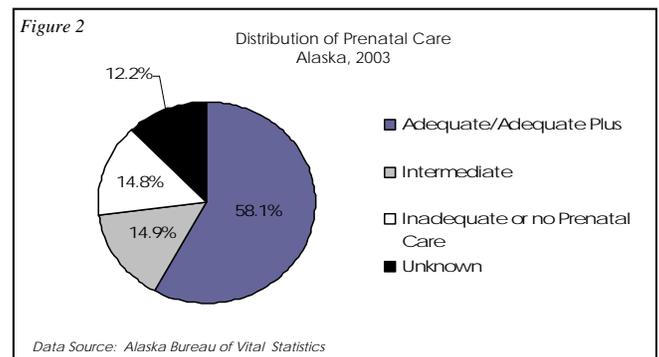
Barriers to Prenatal Care

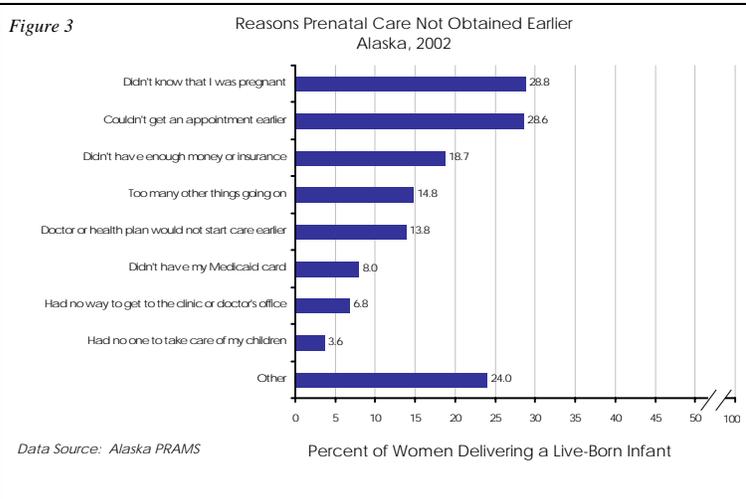
- Analysis of Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) data indicated that 1 in 5 Alaskan women did not get prenatal care as early in their pregnancy as they wanted. Among these women, nearly 30% did not know they were pregnant or were unable to get an appointment earlier. Another common reason was lack of funds or insurance. (Figure 3)



Prenatal Care Sources

- Private doctors (38.5%) and hospital clinics (20.7%) were most commonly used as the primary source of prenatal care among Alaskan women. Approximately 12% each used a military facility or Alaska Native health facility. Less commonly used were health department clinics (6.2%) and midwife/birthing center (5.1%).[†]

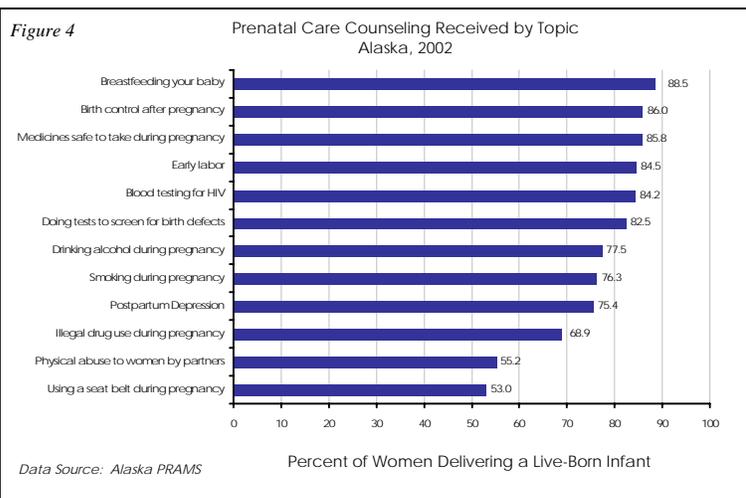




- Medicaid coverage of prenatal care in Alaska has been steadily increasing over the past decade. More than 42% of women who delivered a live birth in 2002 indicated that Medicaid had paid for at least some of their prenatal care.[†] In 2001, private health insurance was used by 38% and one-fourth of Alaska women who delivered a live birth used personal income to help pay for their prenatal care.¹
- Approximately 50% of Alaskan women indicated that they used WIC services prenatally.[†] While generally showing an increasing trend since 1991, prenatal WIC participation in Alaska appears to have leveled off since 1998 when participation reached 47.9%.¹

Prenatal Counseling

- The top three areas discussed by health care workers with their prenatal patients were breastfeeding, birth control methods to use after pregnancy, and medicines that are safe to take during pregnancy. (Figure 4)
- Less often discussed prenatal topic areas were how using illegal drugs could affect the baby, physical abuse to women by their partners, and using a seat belt during pregnancy. (Figure 4)



Disparities

Maternal race and age are associated with prenatal care in Alaska. Disparities in prenatal care indicators for Alaska Natives may be partially explained by variation in the continuity of care for village residents. Utilization of different providers during the pregnancy may not be recorded accurately on the birth certificate.¹

- Compared to other races in 2000, Alaska Natives received early and adequate prenatal care less often. Whites had the highest prevalence of both early (84.9%) and adequate prenatal care (74.4%) – 21% and 46% higher than the reported prevalence for Alaska Natives.²
- In 2003, reported prenatal care among Alaska Natives that was at least adequate decreased nearly 10% from 2000.²
- Although the percentage of women receiving adequate prenatal care tends to increase with age, adequacy of prenatal care for Alaskan women of all age groups is significantly lower than the Healthy People goal of 90%. (Figure 5)
- Prenatal care among young Alaskan women is significantly lower than prenatal care received among other age groups. (Figure 5)

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

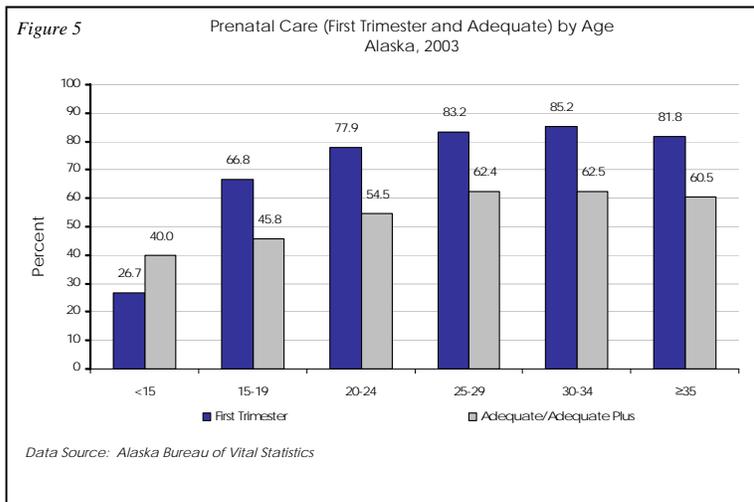
Early and adequate prenatal care may improve maternal and infant outcomes. In Alaska, the lack of improvement in prenatal care indicators has been recognized as a problem, particularly for Alaska Native women. Prenatal health care services must be available, accessible, and affordable. The type of health care provider seen, insurance status, early recognition of pregnancy and ability to find prenatal care locally may affect the level of prenatal care coverage in a population.

Prenatal care providers should offer education and counseling about behaviors that can affect maternal and infant health, as well as strategies for reducing risks and insuring a safe pregnancy and delivery.

Intervention Effectiveness

An important outcome of the Medicaid expansion effort has been a reduction of the number of uninsured deliveries in the United States. Improvement in important indicators of prenatal health, such as early entry into prenatal care; participation in support services; and the number of providers serving low income women, have also been documented.³

Since many women who lack adequate prenatal care may also have risk factors related to poverty and young maternal age – factors which cannot be fully addressed through more adequate prenatal care – there is concern among some researchers that increased use of prenatal care alone may not be sufficient to significantly improve birth outcomes.⁴



Capacity

Propriety

Assuring that women receive timely and adequate prenatal care falls within the overall mission of WCFH. Prenatal care is an important issue among the maternal and child health population – national initiatives have been set forth to address prenatal care objectives (HP2010) and the Maternal and Child Health Bureau requires that indicators related to prenatal care (NPM#18 and HSCI#4) are monitored and assessed on a yearly basis.

Economic Feasibility

Economic feasibility has not been evaluated.

Acceptability

The public health community recognizes the decline in prenatal care indicators as an important issue and according to 2000 PRAMS data, 19.4% of women delivering a live-born infant did not receive prenatal care as early as they wanted to.

Resources

Data: Alaska Bureau of Vital Statistics; Alaska PRAMS

Programs: Medicaid; WIC

Legality

Not an issue.

References

- ¹ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 38-45. June 2003.
- ² Alaska Department of Health and Social Services, Division of Public Health. Alaska Bureau of Vital Statistics. Jan 2005.
- ³ Beck LF, Johnson CH, Morrow B, et al. PRAMS 1999 Surveillance Report. Atlanta, GA: Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. 2003.
- ⁴ Misra, D.P. and Guyer, B. Benefits and Limitations of Prenatal Care: From Counting Visits to Measuring content. JAMA 279:20. 1998

Data Sources

[¥] Alaska Bureau of Vital Statistics, 2002, 2003: State of Alaska, DHSS, DPH. Jan 2005.

[^] Hamilton BE, Martin JA, Sutton PD. Births: Preliminary Data for 2003. National Vital Statistics Reports; 52(10). Hyattsville, Maryland: National Center for Health Statistics. 2004.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

[‡] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

Prevalence estimates for PRAMS data are among women that delivered a live-born infant.

2003 national data for prenatal care in the first trimester are preliminary.

Adequacy of Prenatal Care is derived from an algorithm making use of two types of prenatal care information obtained from the birth certificate data – when prenatal care began and the number of prenatal visits from when care began until delivery. It is referred to as the APNCU Index and is available at http://www.hss.state.ak.us/dph/bvs/PDFs/2000/annual_report/Appendix_D.pdf



Oral Health Care among Pregnant Women and Women in Alaska

Oral diseases are among the most prevalent and preventable chronic health conditions in the U.S. – impacting the oral, general, and reproductive health of women, their quality of life, and the oral health of their children.¹

Women's oral health has improved during the last half century, yet oral diseases among women remain highly prevalent. According to the National Health and Nutrition Examination Survey (NHANES III) nearly 47% of the tooth surfaces among females ages 18 and older showed signs of tooth decay and approximately 67% exhibited clinical signs of gum disease.²

The hormonal changes that occur during puberty and pregnancy are associated with an increased incidence of gingivitis.³ Behavioral risk factors such as tobacco use and poor dietary practices may also influence oral health.² Tobacco use is the most preventable cause of oral cancer,⁴ and smoking may contribute to the early onset and severity of periodontitis. Eating disorders such as anorexia nervosa and bulimia nervosa are serious concerns in terms of women's oral health and pose a clinical challenge to health professionals.⁵

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2002†	Nation 2002^
Proportion of women ages ≥18 that had a dental visit for any reason within the past year	66.3%	71.5%
Proportion of women ages ≥18 that had teeth cleaned by a dentist or dental hygienist within the past year	63.1%	71.9%
Proportion of women ages ≥18 that have lost 6 or more teeth due to decay or gum disease	16.4%	18.6%

Alaska currently doesn't have the capacity to assess Healthy People 2010 (HP2010) objectives surrounding oral health. Information on oral health and dental access among women of childbearing age in Alaska is not readily available. The 2002 Alaska Behavioral Risk Factor Surveillance Survey (BRFSS) has an oral health component, but it is limited in its comparability to the HP2010 objectives. The Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) began collecting data on access to dental care among pregnant women with the 2004 survey. It will be available in the Fall of 2005.

- Compared to the Nation, the percentage of Alaskan women, ages 18 and older, that reported having a dental visit within the past year, and those that reported having their teeth cleaned by a dentist or dental hygienist within the past year, were slightly lower than the estimates for the Nation.

- The percentage of Alaskan women, ages 18 and older, that reported having lost 6 or more teeth due to decay or gum disease was not significantly different from the Nation.

Severity

Over an individual's life, oral diseases and conditions are progressive and cumulative; resulting in severe and debilitating conditions in the absence of appropriate treatment.¹

The impact of oral disease may extend beyond a woman's oral health to the health of her infant. Periodontal diseases among pregnant women may increase the risk preterm birth (under 37 weeks gestation), low birth weight (less than 2,500 grams), and low weight for gestational age.^{6,7}

Maternal oral health is an important factor in preventing early childhood caries in infants. Along with diet and feeding practices, rampant decay in the mother's mouth is an increased risk factor for early development of dental decay in the infant as the primary teeth erupt. *Streptococcus mutans*, the bacteria primarily responsible for initiation of dental decay, is usually passed from mother or caregiver to child. Children diagnosed with early childhood caries may be highly susceptible to future caries (dental decay) development.⁸

Urgency

- Nationally, about 70% of the women who participated in NHANES III reported having a dental visit during the previous 12 months,⁹ yet an analysis of four states participating in the Pregnancy Risk Assessment Monitoring System (PRAMS) indicated that only 23%-35% of women reported having had a dental visit during their most recent pregnancy.¹⁰

- In 2002, more than 1 in 3 Alaskan women, ages 18 and older, reported they hadn't had their teeth cleaned by a dentist or oral hygienist within the past year; and 1 in 3 reported they hadn't had a dental visit for any reason within the past year.[†]
- In 2002, 17.7% of Alaskan women smoked cigarettes during the last three months of pregnancy and 5.0% used smokeless tobacco.¹¹

Disparities

A variety of demographic, general health, behavioral, economic, and social risk factors place some women at high risk for the development of oral diseases. Social and economic influences may impact women's utilization of oral health services and, ultimately, their oral health status. Women who lack information about available resources, and who report being unable to obtain services due to poverty or lack of insurance, may have difficulty accessing services and optimizing their oral health.^{10,12}

A study of oral health during pregnancy using data from four states participating in PRAMS found that, among women who perceived a need for oral health care during their pregnancy, those enrolled in Medicaid were 24%-53% less likely to seek oral health care than those with private insurance.¹⁰

Analysis of Alaska PRAMS data showed that race, education, region, and Medicaid status were significantly associated with prenatal tobacco use (cigarette smoking) and prenatal smokeless tobacco use.¹¹ Refer to the fact sheet Prenatal Tobacco Use in Alaska for more detail about the disparities and interventions associated with prenatal cigarette smoking and prenatal smokeless tobacco use in Alaska.

- Alaska Native mothers had the highest prevalence of prenatal tobacco use during the last three months of pregnancy (29.3%) – nearly 2 to 3 times that of white (14.9%) and Asian/Pacific Islander mothers (10.5%).¹¹
- Alaska Native mothers were 20 times more likely to report using smokeless tobacco while they were pregnant than white mothers – 17.8% and 0.9%, respectively.¹¹

A screening of Alaska Native adults (males and females), ages 35-44 years, found:

- 50.8% had untreated dental decay at the time of the screening
- 51.3% reported tobacco use
- 37.4% had moderate to severe periodontitis.¹³

Similar information is not available solely for adult Alaskan women or for other racial or ethnic groups.

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

- Continue education and other efforts to reduce tobacco use among adults with a directed approach to eliminate use of tobacco products during pregnancy. Refer to the fact sheet Prenatal Tobacco Use in Alaska for more information on this intervention and its effectiveness.
- Continue work on an oral health surveillance system to collect data on oral disease and dental access in Alaska (including information related to pregnant women and infants).
- Enhance the level of dental benefits to adults enrolled in Medicaid to include preventive and restorative dental services – or incrementally expand this service for pregnant women enrolled in Medicaid.
- Support efforts to reduce the level of oral disease (dental decay and periodontal disease) in pregnant women and mothers as means to improve birth outcomes, reduce the infant's risk for development of early childhood caries, and improve women's health.
- Support education and intervention efforts to screen infants for dental decay and early referral for infants with early signs of early childhood caries (e.g., change Medicaid guidance for a dental referral from age 3 to age 1).

Intervention Effectiveness

Intervention effectiveness for these recommendations was not evaluated.

Capacity

Propriety

Promoting oral health among the maternal and child health population in Alaska falls within the overall mission of the Women's, Children's, and Family Health Section. Poor oral health among Alaskan pregnant women and mothers can affect the health of their infants. There are several national objectives (HP2010) that address oral health and one is currently monitored on a yearly basis for the Title V MCH Block Grant.

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Although not supported with data, it is likely that promoting oral health would be acceptable among the target population, since quality of life issues and reduced general health are associated with poor oral health.

Resources

The department is working on a project to collect similar information on other racial/ethnic groups in the fall of 2005 through a federally funded contract doing dental assessments of kindergarten children and children enrolled in Head Start.

Alaska's Medicaid program only covers emergency dental services for immediate relief of pain and acute infection. Routine dental restorative and preventive services are not covered. This limits dental access and preventive dental care for dental decay and periodontal disease for all adults.

Legality

Not an issue.

References

- ¹ Women's and Children's Policy Center. Johns Hopkins University. Improving Women's Health and Perinatal Outcomes: The Impact of Oral Diseases. 2002. Available at: www.jhsph.edu/wchpc/pub/oralbrief.pdf.
- ² Office of Women's Health Research. Agenda for Research on Women's Health for the 21st Century: A Report of the Task Force on the NIH Women's Health Research Agenda for the 21st Century (Vol.2), Bethesda, MD: Office of Women's Health Research. 1999.
- ³ Zeeman GG, Veth EO, Dennison DK. Periodontal Disease: Implications for Women's Health. *Obstetrical & Gynecological Survey*; 56(1):43-49. 2001.
- ⁴ National Institute of Dental and Craniofacial Research. Oral Health in America: A Report of the Surgeon General - Executive Summary. Rockville, MD: NIDCR. 2000.
- ⁵ Studen-Pavlovich D, Elliott MA. Eating Disorders in Women's Oral Health. *Dental Clinics of North America*; 45(3):491-511.
- ⁶ Offenbacher S, Lief S, Boggess KA, Murtha AP, Madianos PN, Champagne CM, McKaig RG, Jared HL, Mauriello SM, Auten RL Jr, Herbert WN, Beck JD. Maternal Periodontitis and Prematurity. Part I: Obstetric Outcome of Prematurity and Growth Restriction. *Annals of Periodontology*; 6(1):164-174. 2001.
- ⁷ Jeffcoat MK, Geurs NC, Reddy MS, Cliver SP, Goldenberg RL, Hauth JC. Periodontal Infection and Preterm Birth: Results Of A Prospective Study. *Journal of the American Dental Association*; 132(7):875-880. 2001.
- ⁸ Almeida AG, Roseman MM, Sheff M, Huntington N, Huges CV. Future Caries Susceptibility in Children with Early Childhood Caries Following Treatment Under General Anesthesia. *Pediatric Dentistry*; 22(4):302-306. 2004.
- ⁹ National Center for Health Statistics. Health, United States, 2003: With Chartbook on Trends in the Health of Americans. Hyattsville, MD: NCHS. 2003.
- ¹⁰ Gaffield ML, Gilbert BJ, Malvitz DM, Romaguera R. Oral Health during Pregnancy: An Analysis of Information Collected by the Pregnancy Risk Assessment Monitoring System. *Journal of the American Dental Association*; 132(7): 1009-1016. 2001.
- ¹¹ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH
- ¹² Shiboski CH, Palacio H, Neuhaus JM, Greenblatt RM. Dental Care Access and Use Among HIV-Infected Women. *American Journal of Public Health*; 89(6):834-839. 1999.
- ¹³ Indian Health Service. An Oral Health Survey of American Indian and Alaska Native Dental Patients: Findings, Recommendations and National Comparisons. Rockville, MD. Indian Health Service, U.S. Department of Health and Human Services.

Data Sources

[†] Alaska Behavioral Risk Factor Analysis Surveillance System (BRFSS), 2002 Data: State of Alaska, DHSS, DPH.

[^] Behavioral Risk Factor Analysis Surveillance System (BRFSS), 2002 Data: Centers for Disease Control and Prevention (CDC). Atlanta, Georgia: U.S. DHSS, CDC.

Notes

For Alaska PRAMS data note that prenatal tobacco use is cigarette smoking during the last three months of pregnancy for women that delivered a live-born infant. Prenatal smokeless tobacco is any use of smokeless tobacco during pregnancy for women that delivered a live-born infant.

Prevalence estimates for PRAMS data are among women that delivered a live-born infant.

National estimates for BRFSS are the median percent among all states that collected data on these topics in 2002.



Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 4

Prenatal Alcohol Use in Alaska

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2002 [†]	Nation 2002 [*]	Healthy People 2010 Goal [‡]
Proportion of pregnant women who drink alcohol	4.3%	5.3%	<6%
Proportion of pregnant women who binge drink	0.6%	0.2%	<1%

Note: The figures presented in this table for Alaska are during the last 3 months of pregnancy and national are during the last trimester. The HP2010 goals are for the entire pregnancy.

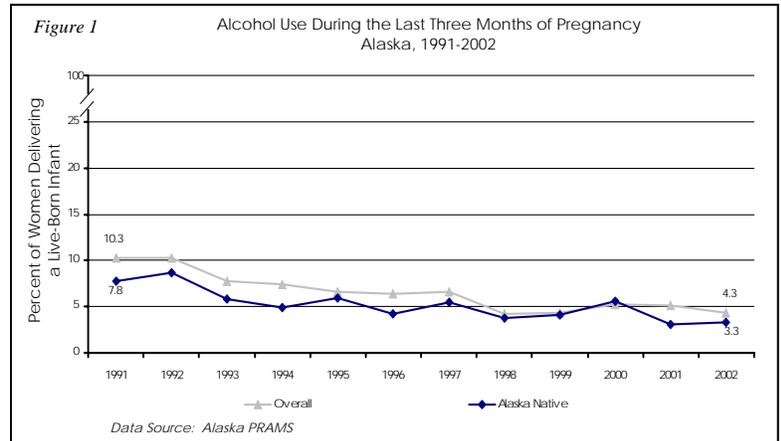
- During the last three months of pregnancy, approximately 1 in 23 Alaskan women reported drinking alcohol (any amount) and less than 1% reported binge drinking.
- Since 1998, prenatal alcohol use has remained lower than the Healthy People 2010 target. The overall prevalence of prenatal alcohol use in Alaska has not yet met the Healthy Alaskan 2010 target of 3.5%, however, Alaska Natives achieved this goal in 2001[‡] and 2002.
- Since women that do not know that they are pregnant may continue to drink early in pregnancy, prevalence of prenatal alcohol use during the last three months of pregnancy is most likely a conservative estimate for use during the entire pregnancy. Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) reports prenatal alcohol use for the last three months of pregnancy only. According to a recent national survey, 9.1% of pregnant women in the U.S. drank alcohol during the month they were surveyed and 3.1% reported that they binged during the month they were surveyed.¹

Severity

Prenatal alcohol use is linked to fetal death, low birth weight, growth abnormalities, developmental delays in children, and fetal alcohol syndrome (FAS).^{2,3} It is also the leading preventable cause of birth defects and mental retardation. Poor birth outcomes related to prenatal alcohol use are 100% preventable.

Urgency

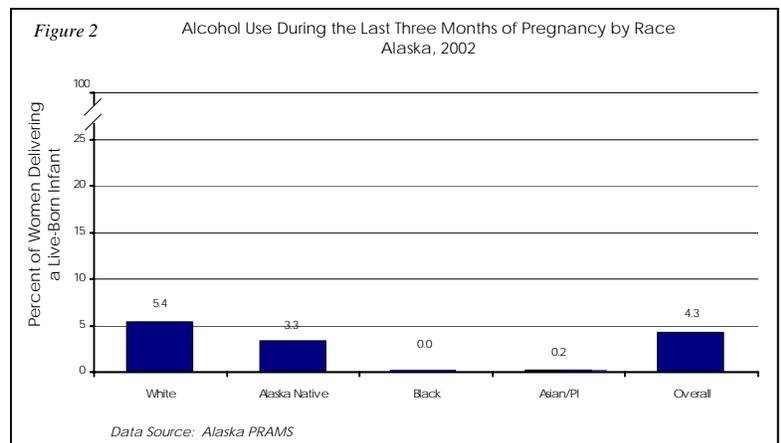
- From 1991 to 2002, the prevalence of prenatal alcohol use has significantly decreased in Alaska – nearly 60% for both overall and Alaska Natives. (Figure 1)



Disparities

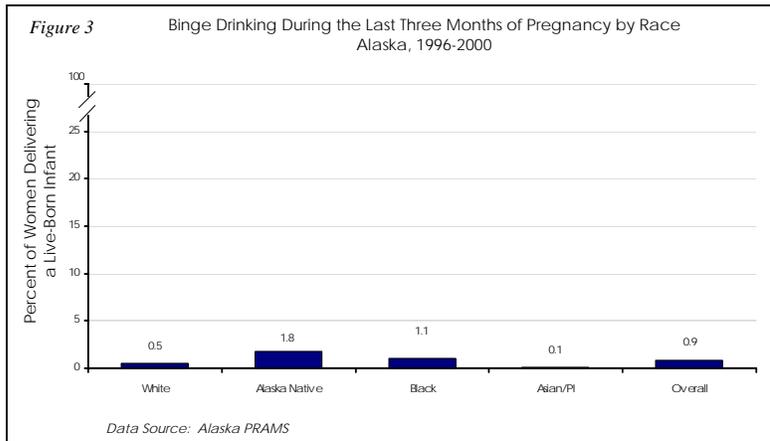
Analysis of Alaska PRAMS data showed that race was significantly associated with prenatal alcohol use during the last three months of pregnancy.

- White mothers in Alaska were significantly more likely than any other race group to drink alcohol during the last three months of pregnancy. They were more than 1.6 times as likely as Alaska Native mothers and more than 24 times that of Asian/Pacific Islander mothers.[†] (Figure 2)
- Analysis of prenatal binge drinking during 1996-2000 showed that although any prenatal drinking was highest among white women (any drinking can be as little as “less than one drink a week”), Alaska Native women had the highest prevalence of prenatal binge drinking.⁴ (Figure 3)



Economic Loss

Based on a lifetime cost of \$1.5 million per individual, the expected lifetime costs of 1999 births with Fetal Alcohol Syndrome in Alaska were estimated to be \$21 million to \$42 million. Cost estimates include medical costs, behavior management, and residential services. Residential services include special education, home care, speech therapy, and institutional care.⁵



Interventions & Recommendations

The U.S. Department of Health and Human Services, in the Dietary guidelines for Americans, recommends that women who are pregnant or who might become pregnant abstain from alcohol use.⁶ The U.S. Preventive Services Task Force (USPSTF) recommends that all pregnant women and women contemplating pregnancy should be informed of the harmful effects of alcohol on the fetus; and since safe levels of alcohol consumption during pregnancy are not known, pregnant women are advised to abstain from drinking alcohol.⁷ The USPSTF recently released a report calling for the use of screening and behavioral counseling interventions to reduce alcohol misuse among adults, including pregnant women, in primary care settings.⁷

Preliminary data from the Alaska Office of FAS Knowledge Attitude Beliefs and Behaviors survey (2002) of physician's groups indicated that 35.9% of OB/GYNs responding to the survey answered yes to the following question: "Is it OK for a pregnant woman to have an occasional alcoholic beverage?" Education for all providers of health care to women of childbearing age is indicated in order to bring their practice in line with recommendations from the USDHHS, USPSTF, and the U.S. Surgeon General who urges women who are pregnant or who may become pregnant to abstain from alcohol consumption.⁸

Intervention Effectiveness

Based on a review of studies evaluating interventions for pregnant women in primary care settings that focused on having patients reduce or stop drinking during pregnancy, the USPSTF stated that more research into the efficacy of

primary care screening and behavioral intervention for alcohol misuse among pregnant women is needed.⁷ Although not statistically significant, in one study they found there was a trend toward lower alcohol consumption and greater abstinence during pregnancy in the intervention group compared to the control group and that other studies targeted toward pregnant women found small or negligible effects of behavioral counseling interventions in reducing alcohol consumption.⁷

Capacity

Propriety

Reducing risk factors associated with poor birth outcomes for Alaskan infants falls within the overall mission of the Women's, Children's, and Family Health Section. Prenatal alcohol use is an important issue among the maternal and child health population – national initiatives have been set forth to address prenatal substance use (HP2010) and the Maternal and Child Health Bureau requires that several indicators of poor birth outcomes that can be associated with prenatal alcohol, smoking, and other substance use (NPM#15, #17; NOM#1-5; and HSCI#1A-2B) are monitored and assessed on a yearly basis.

Economic Feasibility

Unaware of available data addressing economic feasibility.

Acceptability

National data supports the issue of acceptability of reducing prenatal alcohol use among the target population; since there was a significant increase in the prevalence of women abstaining from alcohol later in pregnancy. Prevalence of alcohol use for the 1st, 2nd, and 3rd trimesters were 17.3%, 6.6%, and 5.3%, respectively.¹ Decreasing trends in prenatal alcohol use in Alaska further suggest that the target population is accepting of reducing prenatal alcohol use.

Resources

Data: Alaska PRAMS data can be used to better understand significant risk factors associated with prenatal alcohol use in Alaska and target prevention measures toward high-risk groups.

Legality

There are no legal issues directly associated with prenatal alcohol use, however, infants that are diagnosed with affects of maternal drinking during pregnancy (ICD-9 diagnostic code 760.71) are among conditions reportable to the Alaska Birth Defects Registry under the Alaska Administration Code (7 AAC 27.012).

References

- ¹ SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002. Office of Applied Studies. (2003). Results from the 2002 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.
- ² U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 vols. Washington, DC: U.S. Government Printing Office. 2000.

- ³ Stratton K, Howe C, Battaglia F, eds. Fetal Alcohol Syndrome: Diagnosis, Epidemiology, Prevention, and Treatment. Washington, DC: National Academy Press, 1996.
- ⁴ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 50-51 June 2003.
- ⁵ Advisory Board on Alcoholism and Drug Abuse, Alaska Department of Health and Social Services. Economic Costs of Alcohol and Other Drug Abuse in Alaska, Phase Two. Juneau: McDowell Group. 2001.
- ⁶ US Department of Health and Human Services, US Department of Agriculture. Nutrition and your health: dietary guidelines for Americans. 5th ed. Washington, DC: US Department of Health and Human Services, US Department of Agriculture; 2000.
- ⁷ U.S. Preventive Services Task Force. Screening and Behavioral Counseling Interventions in Primary Care to Reduce Alcohol Misuse: Recommendation Statement. Ann Intern Med 2004;140:555-7.
- ⁸ U.S. Department of Health and Human Services. U.S. Surgeon General Releases Advisory on Alcohol Use in Pregnancy: A News Release of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. February 2005.

Regional groupings are based on the Alaska Department of Labor Regions as shown in the map below.



Data Sources

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

[^] National Survey on Drug Use and Health, 2002. SAMHSA, Office of Applied Studies. (2003). Results from the 2002 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

[‡] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

For PRAMS data note that prenatal alcohol use is any amount of alcohol during the last three months of pregnancy for women that delivered a live-born infant. Prenatal binge drinking is 5 or more alcoholic drinks in one sitting during the last three months of pregnancy for women that delivered a live-born infant.

National prenatal alcohol use is any amount of alcohol during the last trimester among women ages 15-44 who were pregnant in their last trimester at the time they were surveyed. Prenatal binge drinking is 5 or more alcoholic drinks in one sitting during the last trimester among women ages 15-44 who were pregnant in their last trimester at the time they were surveyed.



Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 3

Prenatal Tobacco Use in Alaska

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2002 [†]	Nation 2002 [^]	Healthy People 2010 Goal [*]
Proportion of pregnant women who smoke	17.7%	14.0%	1%
Proportion of pregnant women who use smokeless tobacco	5.0%	0.4%	None

- The prevalence of prenatal smoking in Alaska is significantly higher than the HP2010 goal of 1%.
- Approximately 1 in 6 Alaskan women reported that they smoked cigarettes during the last three months of their pregnancy – slightly higher than the U.S. as a whole.
- Approximately 1 in 20 Alaskan women reported prenatal smokeless tobacco use. Compared to data from a national survey, Alaskan women were much more likely to report prenatal smokeless tobacco use than women in the U.S. as a whole.

Severity

Accounting for 20-30% of all low birth weight births in the United States, prenatal cigarette smoking is the greatest known risk factor for low birth weight.^{1,2} Smoking during pregnancy is associated with infant mortality, miscarriages, preterm delivery, Sudden Infant Death Syndrome (SIDS), and respiratory problems in newborns.²

The effects of smokeless tobacco during pregnancy have been largely unstudied. A recent study indicates that prenatal smokeless tobacco use may be associated with increased risk of preterm delivery and pre-eclampsia.³ According to the Surgeon General, smokeless tobacco use is associated with oral cancer and oral leukoplakia. Studies have shown that it also increases the risk of tooth loss and periodontal disease.

Urgency

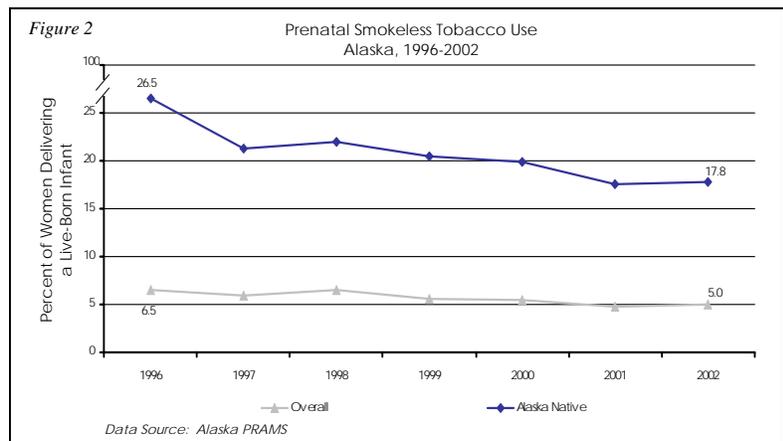
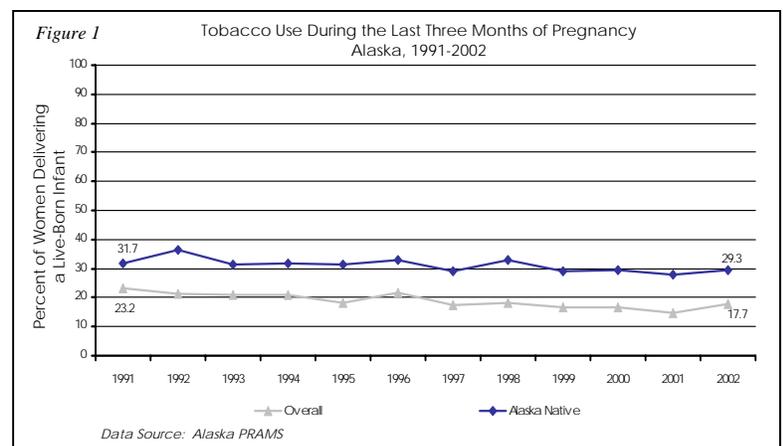
Tobacco Use (Cigarette Smoking)

- From 1991 to 2002, the prevalence of prenatal tobacco use has significantly decreased in Alaska – nearly 24% overall and 8% for Alaska Natives. (Figure 1)

- Among women who reported prenatal tobacco use in 2000, approximately 62% smoked less than half a pack a day – 50% smoked 1-9 cigarettes a day – during the last three months of their pregnancy, while 14% smoked a pack or more a day.⁴

Smokeless Tobacco Use

- From 1996-2002, there has been a significant decline in prenatal smokeless tobacco use in Alaska – nearly 30% overall and 34% for Alaska Natives. (Figure 2)



Disparities

Tobacco Use (Cigarette Smoking)

Analysis of Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) data showed that race, maternal age, education, region, and Medicaid status were significantly associated with prenatal smoking during the last three months of pregnancy.

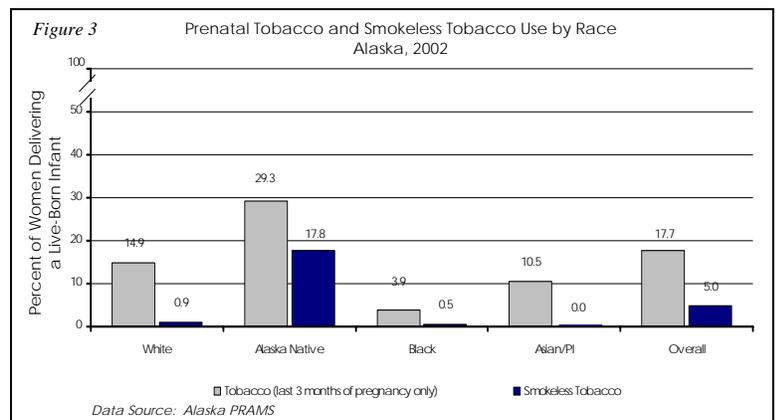
- Although the trend for maternal smoking among Alaska Natives has significantly declined, the prevalence has consistently remained nearly 2 times that of the overall prevalence. Alaska Native mothers had the highest prevalence of prenatal tobacco use of any race group – nearly 2 to 3 times that of white and Asian/Pacific Islander mothers.[†] (Figure 3)
- Young mothers, less than 25 years of age, were at greater risk of prenatal tobacco use than mothers 25 and older and teen mothers were twice as likely to report prenatal tobacco use as older mothers.[‡]
- Women with less than a high school education were 2 times as likely as women that completed high school and nearly 6 times as likely as women with at least some college to smoke tobacco prenatally.[‡]
- During 1999-2001, Alaskan women living in the Northern region were significantly more likely to smoke prenatally (41.1%) than any other region – they were 2 times as likely as women from the Southwest (20.4%) and approximately 4 times as likely than women from the Interior (11.2%) region.[‡]
- Alaskan women that had at least some prenatal care services paid by Medicaid were significantly more likely to smoke prenatally than women that did not use Medicaid to pay for prenatal care.[‡]

Smokeless tobacco use

Analysis of Alaska PRAMS data showed that race, education, region, and Medicaid status were significantly associated with prenatal smokeless tobacco use.

- Although the trend among Alaska Natives has significantly declined from 1996-2002, it is still nearly 4 times that of the state average. (Figure 2)
- In 2002, Alaska Native mothers were significantly more likely to report using smokeless tobacco while they were pregnant than white mothers – the prevalence was nearly 20 times higher. (Figure 3)
- Women that had not completed high school (11.9%) were nearly 2 times as likely to use smokeless tobacco as those that had completed high school (6.7%) and 40 times more likely than those with at least some college (0.3%).[‡]
- Women from the Southwest region were significantly more likely to use smokeless tobacco while they were pregnant (43.9%) – nearly 8 times that of women from the Northern region (6.1%) and more than 30 times that of women from the Interior, Anchorage/Mat-Su, Southeast, and Gulf Coast regions (from 1.2% to 1.5%).[‡]

- In 2001, smokeless tobacco use among Alaskan women that had prenatal care paid by Medicaid (9.2%) was 6.5 times higher than women that did not use Medicaid to pay for prenatal services (1.4%).[‡]



Economic Loss

In 1996, the CDC estimated that Alaska's health care costs for excess neonatal direct health care costs due to maternal smoking was \$540 per maternal smoker – this does not include costs incurred after the infants' initial hospital stay or costs associated with secondhand smoke.⁵

Interventions & Recommendations

Women who quit smoking before or during pregnancy reduce the risk of preterm delivery and low birth weight. Women who stop smoking by the first trimester have infants with weight and body measurements comparable with those of non-smokers. Studies also suggest that smoking in the third trimester is particularly detrimental.²

According to Alaska PRAMS 2000 data, 80% of postpartum women who smoked had a desire to quit smoking. The majority of these women (85.4%) cited the craving for a cigarette as the number one barrier to quitting smoking. If cost were not an issue, 74.2% would use a nicotine patch, gum, nasal spray, or inhaler to aid them in quitting smoking.⁴

A more in-depth analysis of PRAMS 2000 data showed that a significantly higher percentage of white women perceived cost and weight gain to be barriers to quitting smoking compared with Alaska Native women. In contrast, a significantly higher percentage of Alaska Native women perceived lack of support from others to quit smoking was a barrier compared with white women.⁶ Since addiction (craving) was the most cited barrier to quitting and a nicotine product was the most cited aid, dollars spent on actually providing a nicotine product to assist postpartum Alaskan women to quit may prove to be more successful than other intervention efforts.

Intervention Effectiveness

According to the 2004 Surgeon General's Report, eliminating maternal smoking may lead to a 10% reduction

in all sudden infant deaths and a 12% reduction in deaths from perinatal conditions.²

There are a growing number of proven and effective tobacco cessation interventions for women, and research shows that each dollar invested in smoking cessation programs for pregnant women saves \$2-\$3 in health care costs.⁷

Studies have shown that the occurrence of low birth weight could be reduced by an estimated 20% if all pregnant women were non-smokers.^{8,9} Women are more likely to stop smoking during pregnancy, both spontaneously and with assistance, than at other times in their lives. Since women are highly motivated to stop smoking during pregnancy, programs that encourage women to stop smoking before, during, and after pregnancy deserve high priority.²

Capacity

Propriety

Reducing risk factors associated with poor birth outcomes for Alaskan infants falls within the overall mission of the Women's, Children's, and Family Health (WCFH) Section. Prenatal tobacco use is an important issue among the maternal and child health population – national initiatives have been set forth to address prenatal substance use (HP2010) and the Maternal and Child Health Bureau requires that several indicators of poor birth outcomes that can be associated with prenatal alcohol, smoking, and other substance use (NPM#15, #17; NOM#1-5; and HSCI#1A-2B) are monitored and assessed on a yearly basis.

Economic Feasibility

Economic Feasibility was not evaluated.

Acceptability

Alaska PRAMS data showing decreasing trends in prenatal tobacco use and further data indicating that 80% of postpartum women want to quit smoking suggest that the target population is accepting of reducing prenatal tobacco use.

Resources

Data: Alaska PRAMS data can be used to better understand significant risk factors associated with prenatal tobacco use in Alaska and target prevention measures toward high-risk groups.

Legality

Not an issue.

References

- ¹ U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 vols. Washington, DC: U.S. Government Printing Office. 2000.
- ² U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.

- ³ Safe Motherhood: Promoting Health for Women Before, During, and After Pregnancy. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2004.
- ⁴ Schoelhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53, 132 June 2003.
- ⁵ Melvin CL, Adams EK, and Ayadi MF. State Estimates of Neonatal Health-Care Costs Associated with Maternal Smoking – 1996. CDC Surveillance Summaries, Oct 8, 2004. MMWR 53(39):915-917. 2004.
- ⁶ Perham-Hester KA. Postpartum Smoking Cessation Barriers And Aids For Alaskan Women. (poster presentation) Ninth Annual Maternal and Child Health Epidemiology Conference; Tempe, AZ; December 10, 2003.
- ⁷ Centers for Disease Control and Prevention. Health & Economic Impact: Smoking Cessation for Pregnant Women. July 2002.
- ⁸ Alameda County Low Birth Weight Study Group. Cigarette smoking and the risk of low birth weight: a comparison in black and white women. Epidemiology 1990;1(3):201-5.
- ⁹ Chnattingius S, Forman MR, Berendes HW, Graubard BI, Isotalo L. Effect of age, parity, and smoking on pregnancy outcome: a population-based study. American Journal of Obstetrics and Gynecology 1993; 168(1 Pt 1):16-21.

Data Sources

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

[^] National Survey on Drug Use and Health, 2002. SAMHSA, Office of Applied Studies. (2003). Results from the 2002 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

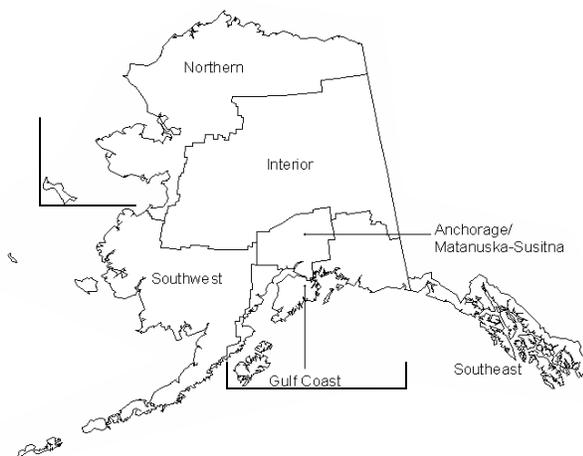
[‡] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

For Alaska PRAMS data note that prenatal tobacco use is cigarette smoking during the last three months of pregnancy for women that delivered a live-born infant. Prenatal smokeless tobacco is any use of smokeless tobacco during pregnancy for women that delivered a live-born infant.

National prenatal tobacco use is cigarette smoking during the last trimester among women ages 15-44 who were pregnant in their last trimester at the time they were surveyed. Prenatal smokeless tobacco is any use of smokeless tobacco during pregnancy among women ages 15-44 who were pregnant at the time they were surveyed.

Regional groupings are based on the Alaska Department of Labor Regions as shown in the map below.





Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 5

Prenatal Marijuana and Cocaine Use in Alaska

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2002 [†]	Nation 2002 [^]	Healthy People 2010 Goal [*]
Proportion of pregnant women who use marijuana	3.5%	2.9%	0%
Proportion of pregnant women who use cocaine or crack	0.3%	0.3%	0%

- Nearly 1 in 29 Alaskan women used marijuana during their most recent pregnancy and approximately 1 in 300 used cocaine or crack.
- Alaskan women were more likely to report prenatal marijuana use than women in the United States as a whole.
- Prenatal use of cocaine or crack among Alaskan women was the same as the prevalence among pregnant women nationally.

Severity

Maternal cocaine use during pregnancy is associated with adverse health effects for both the mother and the infant including intrauterine growth retardation, placental abruption, preterm delivery, congenital anomalies, and cerebral injury¹ and according to research conducted by the Centers for Disease Control and Prevention, mothers who use cocaine early in pregnancy are five times as likely to have a baby with a malformation of the urinary tract as mothers who do not use cocaine.²

Urgency

Prenatal Marijuana Use

- From 1991-2002, there has been no significant decline in the trend for overall prenatal marijuana use in Alaska. However, the overall prevalence for 2002 was the lowest reported since the Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) has collected this data. (Figure 1)

Prenatal Cocaine Use

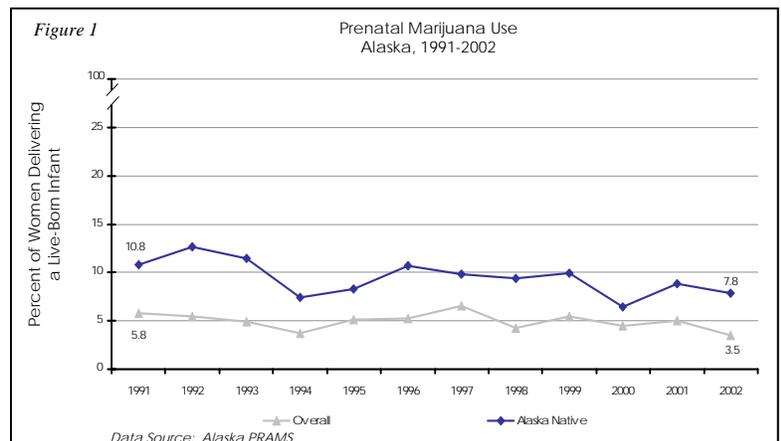
- From 1991 - 2000, prenatal cocaine use in Alaska has remained less than 1%.³

Disparities

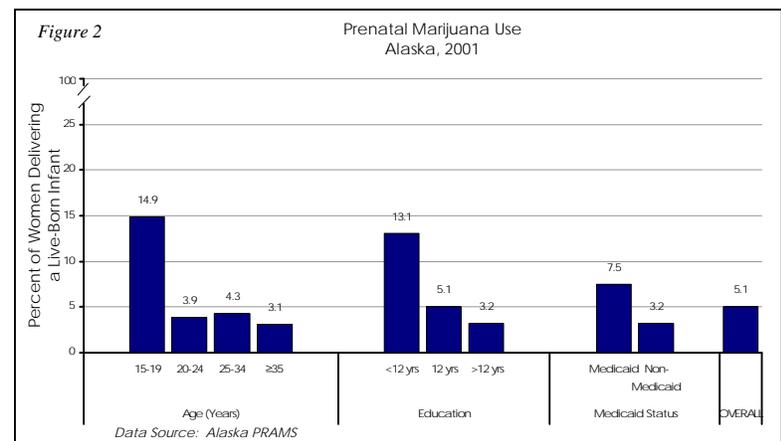
Prenatal Marijuana Use

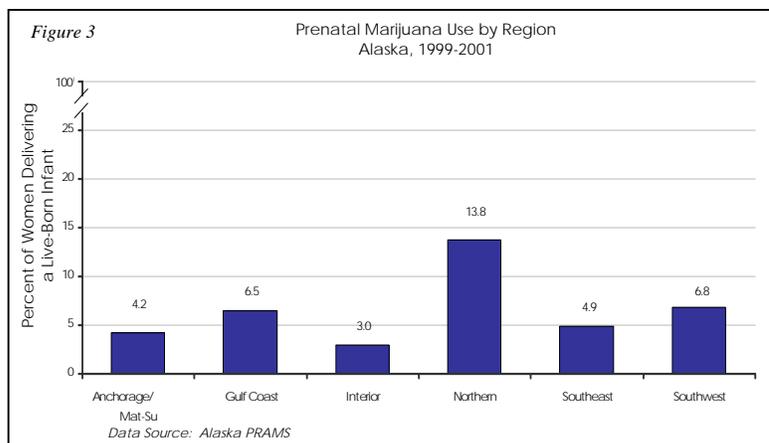
Data from Alaska PRAMS indicated that race, maternal age, education, region, and Medicaid status were significantly associated with prenatal marijuana use.

- The prevalence of prenatal marijuana use among Alaska Native mothers has been significantly higher than the overall state prevalence over the last decade – more than twice that of the state average in 2002. (Figure 1)



- The prevalence of prenatal marijuana use was more than 3 times as high among Alaska Native mothers compared to white mothers.[†]
- Alaskan teen mothers had a significantly increased risk of prenatal marijuana use – they reported use at a rate 3.5 to 5 times that of other age groups.[‡] (Figure 2)





- Alaskan women that had not completed high school were more than 2.5 times more likely to use marijuana prenatally than those that had completed high school and 4 times more likely than those with at least some college.[‡] (Figure 2)
- During 1999-2001, women from the Northern region were significantly more likely to report prenatal marijuana use – approximately 2 to 4.5 times that of other regions. The Interior region had the lowest prevalence.[‡] (Figure 3)
- The prevalence of prenatal marijuana use among Alaskan women that had prenatal care paid by Medicaid was nearly 2.5 times higher than among women that did not use Medicaid to pay for prenatal care.[‡] (Figure 2)

Prenatal Cocaine Use

Alaska PRAMS data for prenatal cocaine use was only analyzed by race-group.

- Alaska Native mothers were nearly 3 times more likely to report prenatal cocaine use than white mothers (0.63% and 0.23%, respectively).[†]
- Approximately 1 in 150 Alaska Native mothers reported prenatal cocaine use compared to 1 in 430 white mothers.[†]

Economic Loss

National estimates for medical costs of infants exposed prenatally to cocaine are \$504 million a year. The estimated costs per drug-exposed infant for special health care and educational services from birth to age 18 are \$750,000.⁴

Interventions & Recommendations

The American College of Obstetricians and Gynecologists recommends that clinicians take a thorough history of substance use and abuse in all obstetric patients, and remain alert to signs of substance abuse in all women.⁵

The United States Preventative Services Task Force (USPSTF) recommends that all pregnant women be advised of the potential risks of drug use on the development of the fetus and the potential to transmit drugs to infants through breastfeeding. They further recommend that all pregnant women who abuse drugs should be advised of the importance of regular prenatal care and be referred for treatment.⁶

Although routine drug testing of urine or other body fluids is not recommended as the primary method of detecting drug use in pregnant women, selective use of urine testing may be appropriate when the possibility of drug use is suggested by clinical signs and symptoms such as growth retardation, inadequate weight gain, and inadequate prenatal care. For women that have used drugs, the USPSTF suggests that periodic testing can help monitor and encourage abstinence.⁶

Intervention Effectiveness

There are few controlled trials of interventions for pregnant women who use illicit drugs. Women who use crack and other forms of cocaine account for the largest group of pregnancies at risk from illicit drugs, but optimal treatment for cocaine users is uncertain. In a review of research the USPSTF found that risk of low birth weight decreased substantially with increasing number of prenatal visits and that women who reduced use of cocaine during pregnancy, or used cocaine infrequently, had outcomes similar to non-users in several studies.⁶

The USPSTF also found that use of standardized clinical assessment in all pregnant women can increase the identification of drug use, but found little evidence that routine urine screening in asymptomatic women reduces drug use during pregnancy or results in better perinatal outcomes. Treatment services for pregnant, drug abusing women are often scarce, testing may not identify those pregnancies at highest risk, and positive tests have direct legal and social consequences for the mother and child. There is also concern that in places where clinicians must report drug use in pregnancy, routine testing may lead some women to avoid needed prenatal care.⁶

Capacity

Propriety

Reducing risk factors associated with poor birth outcomes for Alaskan infants falls within the overall mission of the Women's, Children's, and Family Health Section. Prenatal substance use is an important issue among the maternal and child health population – national initiatives have been set forth to address prenatal substance use (HP2010) and the Maternal and Child Health Bureau requires that several indicators of poor birth outcomes that can be associated with prenatal alcohol, smoking, and other substance use (NPM#15, #17; NOM#1-5; and HSCI#1A-2B) are monitored and assessed on a yearly basis.

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Reducing illicit drug use among the prenatal population is acceptable in the community.

Resources

Data: Alaska PRAMS can be used to better understand significant risk factors associated with illicit drug use during the prenatal period in Alaska and target prevention measures toward high-risk groups. While marijuana use is still collected by PRAMS, cocaine use is only available until 2003.

Legality

Alaska State Law prohibits marijuana and cocaine use. It was not until March 1991 that Alaska made marijuana illegal. Marijuana was made legal for medicinal purposes in 1999 under Alaska Statute 17.37.010.

References

- 1 Brantley M. et al. Population Based Prevalence of Perinatal Exposure to Cocaine - Georgia, 1994. October 18, 1996. MMWR 45(41):887-891. Oct 1996.
- 2 Urogenital Anomalies in the Offspring of Women Using Cocaine during Early Pregnancy—Atlanta, 1968-1980. MMWR 38(31):536,541-542. 1989.
- 3 Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 48-49. June 2003.
- 4 NGA Center for Best Practices. Healthy Babies: Efforts to Improve Birth Outcomes and Reduce High Risk Births. Issue Brief. 2001.
- 5 American College of Obstetricians and Gynecologists. Substance abuse in pregnancy. Technical Bulletin no. 195. Washington, DC: American College of Obstetricians and Gynecologists, July 1994.
- 6 U.S. Preventative Services Task Force. Guide to Clinical Preventive Services, 3rd Edition. 1996.

Data Sources

† Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

^ National Survey on Drug Use and Health, 2002. SAMHSA, Office of Applied Studies. (2003). Results from the 2002 National Survey on Drug Use and Health: National findings (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

‡ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

For Alaska PRAMS data note that prenatal marijuana and cocaine/crack use is among women that delivered a live-born infant. Marijuana prevalence for blacks (figure 2) may be unreliable as there were at least 30 but less than 60 respondents. No blacks reported this indicator.

National prenatal marijuana and cocaine/crack use is among women ages 15-44 who were pregnant at the time they were surveyed.

Region groupings are based on the six Alaska Department of Labor regions as shown in the map below.





Perinatal HIV Infection in Alaska

Prevention of transmission of the human immunodeficiency virus (HIV) from mother to child (vertical transmission) is a priority in the care of pregnant women infected with HIV.¹ Transmission can occur during pregnancy, at delivery or during breastfeeding. Improved drug therapies and guidelines that counsel HIV positive women to avoid breastfeeding have drastically reduced the number of perinatal HIV cases in the U.S.

Seriousness

Health People 2010 Targets and National Data

Indicator	Alaska 1998-02†	Nation 2003^	Healthy People 2010 Goal*
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Number of perinatal infections of HIV	0	90	Dev.
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†Data are from 25 States with confidential, name-based HIV reporting prior to 1994. See Notes for details.

Although, the Healthy People 2010 objective for reducing perinatal HIV is developmental, perinatal HIV in Alaska has remained below the Nation.

- During 1998-2002, there were no Alaskan infants identified as HIV-positive.

Severity

The vast majority of AIDS cases among children in the U.S. occur through vertical transmission during pregnancy, labor and delivery, or breastfeeding. Vertical transmission accounted for 91% of all AIDS cases reported among U.S. children before 1999.²

Antiviral medications given to women perinatally and to their newborns in the first weeks of life reduce the transmission rate to 2% or less.¹ Without intervention there is a 25% mother to child transmission rate of HIV – which would result in an estimated 1,750 HIV-infected infants annually in the U.S.²

Urgency

- New drug treatments and preventative measures have reduced the number of AIDS cases in children in the U.S. from 952 in 1992 to 59 cases in 2003.³
- From 1998-2002 Alaskan women accounted for 30% of the reported HIV/AIDS cases.⁴
- According to the Alaska HIV Prevention Plan, the number of Alaskan women of childbearing age with HIV/AIDS is low but increasing.⁴

- Data from the Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) showed that 84.2% of women delivering a live-born infant in 2002 reported that a health care worker discussed blood testing for HIV during their prenatal care.⁵

Disparities

National data indicate that race, ethnicity, and sex are significantly associated with higher rates of HIV and AIDS.

- In 1998, 80% of children and adult women that were infected with HIV were either African American or Hispanic.²
- From 1999-2003 the annual number of estimated AIDS diagnoses in the U.S. increased 15% among women and 1% among men.³

Although Alaska Native women only comprise 16% of the State population, they accounted for nearly 40% of all recent HIV (non-AIDS) cases among Alaskan women.⁴

Economic Loss

Without intervention, the estimated 1,750 HIV-infected infants that would occur annually in the U.S. would be estimated to have a lifetime medical costs of \$282 million.²

Interventions & Recommendations

With the finding that perinatal HIV transmission rates could be reduced substantially with zidovudine antiviral therapy during pregnancy, the U.S. Department of Health & Human Services Public Health Service issued guidelines recommending that HIV counseling and voluntary testing become part of routine prenatal care for all pregnant women.

Virtually all professional health care organizations have adopted and promoted voluntary, universal prenatal HIV testing. The American College of Obstetricians and Gynecologists (ACOG) recommendations include: following an opt-out prenatal HIV testing approach, offering repeat HIV testing in the third trimester for high risk women, use of the rapid HIV test for women in labor

whose status is unknown and prompt initiation of antiretroviral prophylaxis.¹

Furthermore, ACOG recommends that rapid HIV testing, with results that are available within hours, be used to identify HIV infection in women who arrive at labor and delivery with undocumented HIV status. If HIV antibodies are detected, the pregnant woman should be encouraged to start antiretroviral prophylaxis.¹

It is well documented that transmission from mother to infant can occur when an HIV positive mother breastfeeds her infant, therefore, breastfeeding cessation has become one of the primary components of preventing vertical transmission.⁶ The American Academy of Pediatrics and the Centers for Disease Control and Prevention recommend complete avoidance of breastfeeding by HIV-infected women.⁶

Intervention Effectiveness

Declines of more than 90% in new cases of AIDS among children demonstrate that these strategies successfully reduce vertical transmission of HIV. Lowering incidence rates even further will require increased access to and use of prenatal care.²

Capacity

Propriety

Improving outcomes among Alaskan infants falls within the overall mission of the Women's, Children's, and Family Health Section and national initiatives have been set forth to address reducing perinatal HIV (HP2010).

Economic Feasibility

In its 1999 analysis of perinatal transmission reduction efforts, the State of Alaska Division of Public Health concluded that a universal newborn HIV screening program did not seem justified on a cost-benefit basis, but recommended continued promotion of efforts to provide maternal screening.⁷

Acceptability

The Alaska Division of Public Health cites data indicating a very high acceptability of prenatal HIV testing in Alaska.⁷

Resources

Alaska PRAMS can be used to monitor trends in prenatal care counseling for HIV testing.

Title X Family Planning Program provides comprehensive and confidential services, but in only two locations. Two other Title X grantees provide services in Alaska: Planned Parenthood of Alaska (4 sites), and the Municipality of Anchorage (2 sites).

Public Health Centers statewide provide screening, diagnosis, and sometimes, treatment services.

Legality

Not an issue.

References

- ¹ American College of Obstetricians and Gynecologist, Prenatal and Perinatal Human Immunodeficiency Virus Testing: Expanded Recommendations. Committee Opinion Number 234. May 2000.
- ² Centers for Disease Control and Prevention. Status of Perinatal HIV Prevention: U.S. Declines Continue. Fact Sheet. 1999.
- ³ Centers for Disease Control and Prevention. HIV/AIDS among Women. November 2004.
- ⁴ State of Alaska Department of Health and Social Services. 2004-2006 Alaska HIV Prevention Plan. 2003.
- ⁵ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.
- ⁶ American Academy of Pediatrics. Human Milk, Breastfeeding and Transmission of Human Immunodeficiency Virus Type 1 in the United States. PEDIATRICS: 112 (5): 1196-1205. November 2003.
- ⁷ State of Alaska, Department of Health and Social Services. Preventing Perinatal Transmission of HIV Infection in Alaska. Section of Epidemiology Bulletin. May 1999.

Data Sources

† Alaska HIV/STD Program, 1998-2002 Data in: State of Alaska Department of Health and Social Services. 2004-2006 Alaska HIV Prevention Plan.

^ HIV/AIDS Reporting System, 2003 Data in: Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2003 (Vol. 15). Atlanta: US Department of Health and Human Services, Centers for Disease Control and Prevention. 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

Notes

National estimates for perinatal HIV are based on 25 states that have had laws and regulations requiring confidential name-based HIV infection reporting since 1994. Data include children with a diagnosis of HIV infection. This includes children with a diagnosis of HIV infection only, a diagnosis of HIV infection and a later AIDS diagnosis, and concurrent diagnoses of HIV infection and AIDS.



Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 7

Maternal Illness and Complications During Pregnancy in Alaska

Illnesses and health conditions related to pregnancy can result in short or long-term maternal morbidity, especially if not appropriately treated through adequate prenatal and post-delivery care. An estimated two to three women die in the U.S. every day from pregnancy complications, and over 30% of pregnant women experience some type of illness or injury during childbirth beyond what would be expected in a normal delivery.^{1,2}

Most pregnancy-related complications are preventable. The most common are: ectopic pregnancy, premature labor, hemorrhage, blood clots, high blood pressure, infection, stroke, amniotic fluid in the bloodstream, diabetes, and heart disease.¹ Sexually transmitted diseases (STDs) among pregnant women are associated with increased risk of poor prenatal and birth outcomes; adverse outcomes associated with STDs during pregnancy are generally preventable through adequate prenatal care.

Seriousness

Healthy People 2010 Targets and National Data

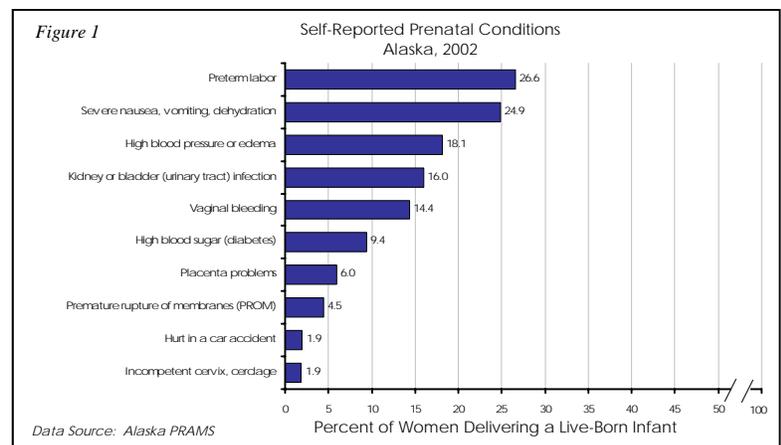
Maternal illness and complications due to pregnancy:	Alaska 2002	Nation 2001 [^]	Healthy People 2010 Goal ¹
Hospitalizations during labor and delivery	---	31.9%	< 24%
Hospitalizations for ectopic pregnancy	---	---	Developmental
Hospitalizations for postpartum complications including postpartum depression	---	---	Developmental

At this time Alaska does not have data to address the Healthy People objectives listed above.

Severity

Maternal morbidity during pregnancy and after delivery contributes to perinatal mortality, chronic health problems for mothers and infants, increased health care expenditures and decreased quality of life. Ectopic pregnancy is an important cause of pregnancy-related illness and disability in the U.S. and is the leading cause of maternal death in the first trimester of pregnancy.³

A pregnant woman with a sexually transmitted disease has an increased risk of preterm labor, premature rupture of membranes, and uterine infection after delivery.⁴ Pelvic inflammatory disease (PID) increases the risk of ectopic pregnancy. Among women with PID, 9% will have an ectopic pregnancy due to tubal scarring.⁵ Chlamydia is a leading cause of early infant pneumonia and conjunctivitis in newborns.⁶ Other poor perinatal outcomes may include stillbirth, low birth weight, neonatal sepsis, neurological damage, blindness, deafness, acute hepatitis, meningitis, chronic liver disease, and cirrhosis.⁴



Alaska PRAMS data indicated that among the top self-reported prenatal conditions among Alaskan women in 2002:

1 in 4 reported:	1 in 6 reported:	1 in 7 reported:
preterm labor	high blood pressure or edema	vaginal bleeding
severe nausea, vomiting, and dehydration	kidney or bladder infections	

Urgency

- Approximately 34% of women who delivered a live-born infant in 2002 indicated they did not have any of the conditions listed in Figure 1.
- The most prevalent self-reported prenatal condition for women who delivered a live-born infant in Alaska during 2002 was preterm labor (26.6%), followed by severe nausea, vomiting, and dehydration (24.9%). (Figure 1)

- In 2003, the rate of Chlamydia among Alaskan women was the highest in the Nation at 857.8 per 100,000 – an increase of 77.5% from 1999.⁵
- From 1994-2003, the rate of death to Alaskan newborns affected by maternal factors and complications during pregnancy was 59.2 per 100,000 infants.⁷
- Maternal factors and complications during pregnancy was the second leading cause of mortality among Alaskan newborns – accounting for 13.5% of all infant deaths over the last decade (see notes for definition).⁷

Disparities

The risk of ectopic pregnancy increases with maternal age. Regardless of race group, the risk of ectopic pregnancy among women ages 35-44 is 3 times that of women ages 15-24.³

Prenatal maternal illness data from Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) have not been analyzed for disparities at this time.

Economic Loss

Emergency room visits, hospital stays, and missed days of work due to maternal illness and complications of pregnancy can have a significant financial impact on pregnant women, families, and society. Nationally, complications before delivery account for more than 2 million hospital days of care and over \$1 billion each year in the United States.¹ Alaska PRAMS data indicated that of the women who indicated they had at least one of the conditions in Figure 1; 26.6% went to the hospital or emergency room and stayed less than 1 day, 10.9% went to the hospital and stayed 1 to 7 days, 1.7% went to the hospital and stayed more than 7 days, and 17.6% stayed in bed at home more than 2 days because of their doctor's or nurse's advice.[†]

Interventions & Recommendations

Recommendations for reducing maternal deaths and pregnancy-related complications include better data collection on maternal death and disability, better policies addressing the health needs of women before, during and after pregnancy, including gaps in prevention programs and comprehensive family planning services, and more research on racial and ethnic disparities.^{2,8}

Healthy People 2010 (HP2010), the initiative that defines our national targets, recommends focusing attention on the major causes of maternal illness and complications, especially those associated with maternal death, such as ectopic pregnancy. HP2010 also recommends that postpartum complications, such as postpartum depression (PPD) be included when assessing maternal illness and complications during pregnancy. The percent of women having an ectopic pregnancy and the percent of women with postpartum complications, including PPD, are

developmental indicators that are sub-parts to the objective of reducing maternal illness and complications due to pregnancy.⁹

Intervention Effectiveness

National objectives associated with maternal illness and complications during pregnancy are still in the developmental stages and data sources are still being identified.

Capacity

Propriety

Reducing risk factors associated with poor birth and maternal health outcomes for Alaskan infants and mothers falls within the overall mission of the Women's, Children's, and Family Health Section. Maternal illness around the prenatal period is an important issue among the maternal and child health population – national initiatives have been set forth to address maternal health and poor birth outcomes (HP2010) and the Maternal and Child Health Bureau requires that several indicators of poor birth outcomes of the perinatal period are monitored and assessed on a yearly basis.

Economic Feasibility

Economic feasibility was not addressed

Acceptability

Although unsubstantiated with research, promoting better health and well-being during and after pregnancy is most likely acceptable to the community and the target population.

Resources

Data: Alaska PRAMS data can be used to better understand significant risk factors associated with maternal illness and complications due to pregnancy in Alaska so that high-risk groups might be identified for more effective targeting of prevention measures.

Legality

Not an issue.

References

- ¹ Safe Motherhood: Promoting Health for Women Before, During, and After Pregnancy. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2004.
- ² Danel I, et al. "The Magnitude of Maternal Morbidity During Labor and Delivery, United States, 1993-1997". American Journal of Public Health. April 2003.
- ³ Centers for Disease Control and Prevention. Ectopic Pregnancy in the United States, 1990-92. MMWR. 44(3):46-48. 1995.
- ⁴ Centers for Disease Control and Prevention. STDs and Pregnancy Fact Sheet. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. May 2004
- ⁵ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.
- ⁶ Centers for Disease Control and Prevention. Chlamydia Fact Sheet. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. May 2004.
- ⁷ Alaska Department of Health and Social Services, Division of Public Health. Alaska Bureau of Vital Statistics. Jan 2005.
- ⁸ Chang J, et al. Pregnancy-Related Mortality Surveillance – United States, 1991-1999. MMWR 52(SS-2). 2003.
- ⁹ U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 vols. Washington, DC: U.S. Government Printing Office. 2000.

Data Sources

[^] National Hospital Discharge Survey (NHDS) 2001, Centers for Disease Control and Prevention, National Center for Health Statistics.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

Notes

Prevalence estimates for PRAMS data are among women that delivered a live-born infant.

Maternal factors and complications during pregnancy were: complications of labor and delivery; maternal complications of pregnancy; maternal hypertensive disorders; placenta, cord and membranes; noxious influences transmitted via placenta or breast milk; other maternal conditions that may be unrelated to the present pregnancy.



Maternal Mental Health in Alaska

Poor maternal mental health adversely affects families, children, and infants. Supporting the association between maternal mental health and behavior in children, a recent study has shown that maternal mental health is significantly associated with the presence of Attention Deficit Hyperactivity Disorder (ADHD) in school-aged children.¹

There are varying degrees of depression that can occur after a pregnancy. During the postpartum period, women may experience postpartum blues, postpartum depression, or postpartum psychosis. Postpartum depression (PPD) can be disabling for a new mother and can impact her ability to adequately care for her infant. PPD affects women of all ages, economic status, racial and ethnic backgrounds. Any woman who is pregnant, had a baby within the past few months, miscarried, or recently weaned a child from breastfeeding can develop PPD.²

The Alaska Pregnancy Risk Assessment Monitoring System (PRAMS) provides data for self-reported postpartum depression. This is not a clinical diagnosis of PPD and is therefore not directly comparable.

Seriousness

Healthy People 2010 Targets and National Data

Proportion of who had self-reported postpartum depression	Alaska 2002 ¹	Nation 2000 [^]
Severe	4.7%	5.1%-8.9%
Low to Moderate	51.9%	48.9%-62.3%
None	43.4%	31.0%-44.6%

[^]Range represents estimates from other PRAMS states for 2000. Refer to Data Sources and Notes for details.

There are developmental Healthy People 2010 objectives on maternal mental health, particularly postpartum depression. However, goals have not yet been defined.

- Approximately 1 in 21 Alaskan women reported they were very depressed and 1 in 7 reported they were moderately depressed. More than half reported they experienced low to moderate depression. (Figure 1)
- Although there is no comparable national estimate for self-reported postpartum depression, analysis of data from 7 Pregnancy Risk Assessment Monitoring (PRAMS) states for 2000 (including Alaska) reported a range of 5.1% to 8.9% of women that self-reported severe postpartum depression. During that time, Alaska had the second lowest prevalence of 5.4%.³

Severity

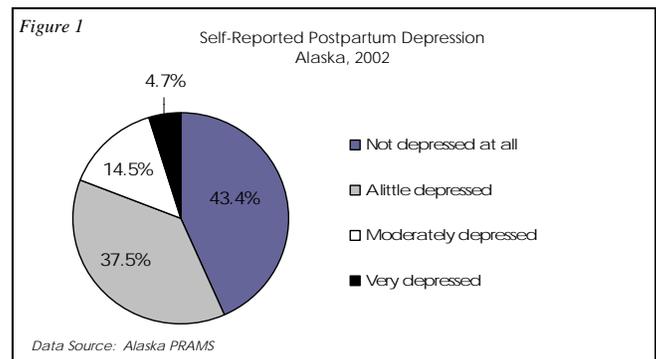
Recent research has shown that children whose mothers had a chronic and activity-limiting mental health condition had a fourfold increased association of ADHD.¹

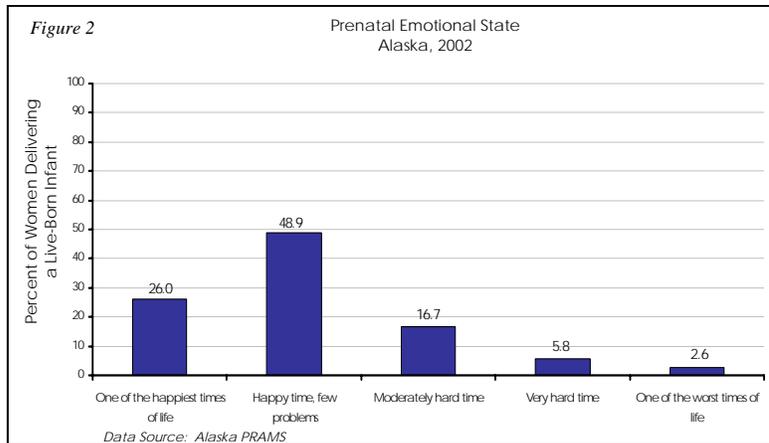
Postpartum blues are common, affecting approximately 70-80% of women who give birth,⁴ and usually occurring

within the first week of delivery and peaking at 3 to 5 days. An estimated one in ten women, however, has a major depressive episode within four to 16 weeks after childbirth.⁵ Postpartum depression is a more serious disorder with potentially long-lasting consequences and postpartum psychosis is a very serious mental illness that requires treatment right away, almost always requiring medication and sometimes hospitalization.² Postpartum psychosis may manifest itself as one of several different disorders, of which bipolar mood disorder is the most common.⁶ Women affected with postpartum psychosis can lose touch with reality and often experience auditory hallucinations, delusions, and, although less common, visual hallucinations – other symptoms include insomnia, feeling agitated and angry, and strange feelings and behaviors.²

Urgency

- Approximately 1 in 4 Alaskan women indicated that their prenatal period was a “moderately hard time”, a “very hard time”, or “one of the worst times of my life”. (Figure 2)





- Although more than half reported they had low to moderate depression, 1 in 4 Alaskan women (24.6%) indicated that a health care worker did not talk with them about postpartum blues or PPD.[†]
- Alaskan women who self-reported postpartum depression (56%), more than 1 in 5 indicated they wanted to see a mental health professional and 1 in 8 had not seen one.[†]
- A recent study indicated that stress was significantly associated with self-reported severe depression among mothers of newborns.³ Common maternal stressors surrounding the prenatal period among Alaskan women were moving to a new address (40.2%), problem paying bills (27.2%), and arguing with husband/partner more than usual (26.8%).⁷

Disparities

A recent study from the Centers for Disease Control and Prevention (CDC) indicated that single mothers and less affluent mothers were significantly more likely than married and affluent mothers to report a chronic, activity-limiting mental health condition.¹

Women who have been depressed during an on-going pregnancy, have a history of PPD, or who have a previous history of depression are more at risk for PPD.⁵

An analysis of PRAMS data from seven states, which included Alaska, indicated that among mothers of newborns, women with fewer than 12 years of education, those who were Medicaid recipients, and those who delivered low birth weight infants were most likely to report severe depression compared to other women. In addition, women who experienced physical abuse during pregnancy and women who reported stress (emotional, partner-related, financial, or traumatic) were more likely than other women to report being severely depressed.³

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

The American Academy of Pediatrics and the American College of Obstetricians and Gynecologists recommend that pregnant women be educated about PPD during the third trimester and that obstetricians/gynecologists consult with their patients about their risk for psychiatric illness during the postpartum period.⁸

Guidelines about health care have also emphasized that pediatricians should play a role in detecting family problems, especially maternal depression. Although not the mother's provider, pediatricians may have a role as the only health care provider that mothers have frequent contact with. It is suggested that pediatricians who are willing to discuss issues of depression can help mothers understand how their mood might affect their parenting and possibly contribute to behavioral problems with their child.⁹

For women who are not breastfeeding or women with moderate to severe depression, antidepressants (Selective Serotonin Reuptake Inhibitors or tricyclics) are generally considered the first line of treatment for PPD. Studies have indicated that concentrations of antidepressants in breast milk are very low or undetectable, suggesting minimal risk of toxicity in infants. For women who are breastfeeding and who have mild to moderate depression, a careful risk-benefit must be done when prescribing antidepressants. Interventions such as household support, couples counseling, and psychotherapy are useful adjuncts to drug therapy. Women with severe PPD, who verbalize thoughts about self harm or harm to their infant must be referred immediately and treated aggressively – often with a combination of antidepressants, antipsychotics, and hospitalization.⁵

Intervention Effectiveness

At this time the effectiveness of interventions has not been well evaluated.

Capacity

Propriety

Maternal mental health is an important issue among the maternal and child health (MCH) population – poor maternal mental health adversely affects mothers, children, and families. Promotion and monitoring of maternal mental health issues fall within the overall mission of the Women's, Children's, and Family Health Section. National initiatives have been set forth to address mental health objectives (HP2010) which are also related to MCH indicators of well-being; and developmental indicators of maternal mental health, specifically postpartum depression, are in place but have not been defined at this time.

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

The public health community recognizes maternal mental health, such as postpartum depression, as an important issue. According to 2000 PRAMS data, 20% of women delivering a live-born infant who reported PPD wanted to see a mental health professional, but only 9% had already seen one.

Resources

Alaska PRAMS provides data that can be used to assess self-reported PPD and stress, and to identify high-risk groups for targeted interventions

Legality

Not an issue.

References

- ¹ Lesesne CA, Visser SN, and White CP. Attention-Deficit/Hyperactivity Disorder in School-aged Children: Association with Maternal Mental Health and Use of Health Care Resources. *Pediatrics*. 111(5 part 2):1232-7. May 2003.
- ² US Department of Health and Human Services. The National Women's Health Information Center. Postpartum Depression. Jul 2002.
- ³ Centers for Disease Control and Prevention. PRAMS Fact Sheet. PRAMS and Postpartum Depression. Jun 2004.
- ⁴ American College of Obstetricians and Gynecologists. 1991. ACOG Education Pamphlet AP091: Postpartum Depression. Washington, D.C.: American College of Obstetricians and Gynecologists.
- ⁵ Glassman R, Farnan L, Gharib S, and Erb J. Brigham and Women's Hospital. Depression. A guide to diagnosis and treatment. Boston (MA): Brigham and Women's Hospital; 2001.
- ⁶ Jellinek M, Patel BP, Froehle MC, eds. 2002. Bright Futures in Practice: Mental Health—Volume I. Practice Guide. Parental Depression: Postpartum Mood Disorders. Arlington, VA: National Center for Education in Maternal and Child Health.
- ⁷ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 128-29. June 2003.
- ⁸ American Academy of Pediatrics and American College of Obstetricians and Gynecologists. Guidelines for Perinatal Care, 5th ed. Washington DC: American Academy of Pediatrics, 2002.
- ⁹ Olson AL, Kemper KJ, Kelleher KJ, Hammond CS, Zuckerman BS, and Dietrich AJ. Primary Care Pediatricians' Roles and Perceived Responsibilities in the Identification and Management of Maternal Depression. *Pediatrics* 110 (6):1169-1176. Dec 2002.

Data Sources

† Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

^ Pregnancy Risk Assessment Monitoring System (PRAMS), 2000 Data in: Centers for Disease Control and Prevention. PRAMS Fact Sheet. PRAMS and Postpartum Depression. June 2004. Available at http://www.cdc.gov/reproductivehealth/PRAMS_/PDFS/PRAMS%20PPD%20Factsheet_Final.pdf

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

‡ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

Prevalence estimates for PRAMS data are among women that delivered a live-born infant.

The range used for the national prevalence of self-reported postpartum depression is from seven states (Alaska, Louisiana, Maine, New York State, North Carolina, Utah, and Washington) participating in PRAMS during 2000 that collected data on this topic.



Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 9

Pregnancy-Associated and Pregnancy-Related Mortality in Alaska

Although pregnancy-associated mortality affects relatively few women in Alaska annually, death around the time of pregnancy has a substantial impact on families and serves as an indicator of issues that affect the health and well being of mothers and pregnant women.

A pregnancy-associated death is defined as death during or within one year of pregnancy. Pregnancy-related death is defined as death resulting from causes directly related to pregnancy and childbirth.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 1990-99†	Nation 1991-99^	Healthy People 2010 Goal^
Pregnancy-related mortality ratio per 100,000 live births	7.4	11.8	3.3

- Alaska's pregnancy-related mortality ratio is 2.2 times the Healthy People 2010 goal.
- Alaska's pregnancy-related mortality ratio is well below the national average (37% lower). According to national surveillance, states with large populations of black women have higher pregnancy-related mortality ratios. According to recent national data, blacks were 3 to 4 times more likely to die from pregnancy-related causes than whites.¹
- Alaska has one of the Nation's highest documented pregnancy-associated mortality ratios – 58 per 100,000 live births during 1990-1999. (Figure 1)

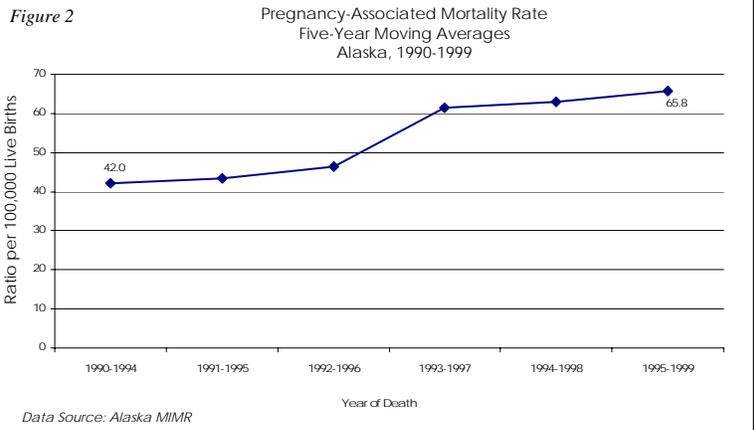
Severity

In the United States, 2 to 3 women die of pregnancy complications each day.² In 2002 the estimated years of

potential life lost (YPLL) before age 65 due to death from pregnancy complications was 13,144 for the Nation.³

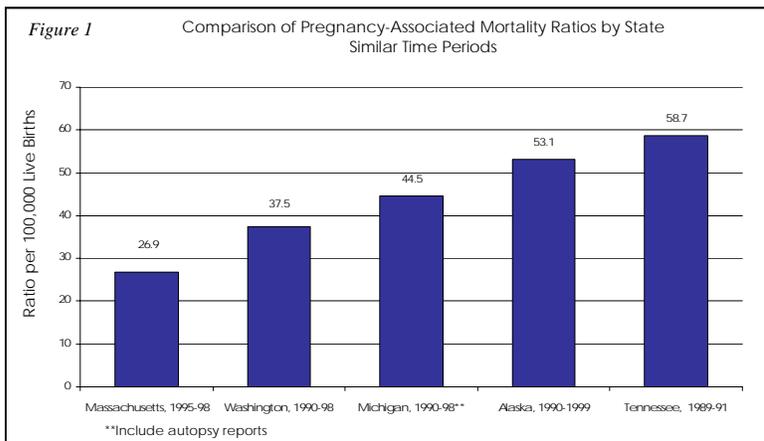
Urgency

Over the last decade, pregnancy-associated mortality has not decreased in Alaska. From 1990-1999, over 90% of pregnancy-associated deaths in Alaska occurred post-delivery. (Figure 2)



Pregnancy-Associated Mortality

- Over the last decade, pregnancy-associated mortality has not decreased in Alaska. From 1990-1999, over 90% of pregnancy-associated deaths in Alaska occurred post-delivery. (Figure 2)
- Unintentional injury was the leading manner of pregnancy-associated death in Alaska, accounting for 37% of mortality during 1990-99.
- Medical causes meeting the definition of pregnancy-related death accounted for 14% of pregnancy-associated deaths while other medical causes accounted for 18%.
- The proportion of mortality due to homicide, suicide and substance abuse was equally distributed and together accounted for 30% of pregnancy-associated mortality during this time period.



Pregnancy-Related Mortality

In Alaska, pregnancy-related deaths are rare – with only 8 deaths from 1990-1999. The three conditions responsible for all pregnancy-related deaths that occurred during this time period were hypertension, embolism, and hemorrhage.

Disparities

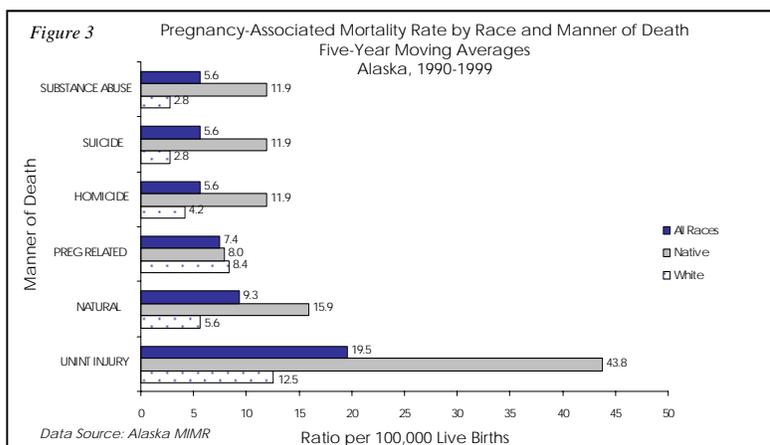
Pregnancy-Associated Mortality

Compared to white women, Alaska Native women had a three-fold higher risk of pregnancy-associated mortality for all manners of death with the exception of pregnancy-related. (Figure 3)

Pregnancy-Related Mortality

National data indicated that maternal age (35 years or older) and women who received no prenatal care, were at increased risk of a pregnancy-related death.¹

Analysis of Alaska MIMR data, from 1990-1999, indicated that white women had slightly higher risk of death from a pregnancy-related cause than Alaska Natives. No black or Asian women died from pregnancy-related causes during this time period.



Interventions & Recommendations

The Alaska Maternal-Infant Mortality Review (MIMR) – a committee made up of Alaska physicians, social workers, and public health providers – reviews pregnancy-associated deaths. The MIMR Committee determined that for 28% of pregnancy-associated deaths occurring during 1990-99, alcohol use was a contributing factor. Socio-economic conditions contributed to 23% and inappropriate medical care to 10% of the deaths. Between 60-77% of pregnancy-associated mortality was considered preventable.[†]

The Alaska MIMR committee identified improvements in medical care and social and behavioral services that might have prevented most pregnancy-associated deaths. These include: better patient education, more aggressive tertiary care referral, improvements in medical management, mental health counseling, alcohol treatment, drug abuse treatment, social support, domestic violence shelters and

safety education. Several state programs conduct specific interventions to address these issues.

Intervention Effectiveness

Intervention effectiveness was not evaluated.

Capacity

Propriety

Reducing maternal mortality is within the overall mission of the Women's, Children's, and Family Health Section. There is a national initiative to reduce pregnancy-related mortality (HP2010) and Alaska is in an excellent position to address pregnancy-associated death and to bring this issue to the attention of health and social services providers.

Economic Feasibility

Full support of the MIMR committee and state funding for surveillance and other epidemiological activities is economically feasible and critical to addressing pregnancy-associated mortality in Alaska. Implementation of specific interventions recommended by the Division of Public Health will fall on a broad spectrum of public and private providers and programs, many of which are already in place.

Acceptability

Addressing pregnancy-associated mortality is acceptable. This issue has received recent attention nationally and many existing programs address medical, social and behavioral issues that are associated with pregnancy-associated mortality.

Resources

Data: Alaska has conducted pregnancy-associated mortality surveillance since 1990 and has an excellent professional review process (MIMR) in place. In addition to case-identification, the MCH Epidemiology Unit analyzes pregnancy-associated mortality data and publishes findings. Other data sources include: Alaska Bureau of Vital Statistics; Office of the State Medical Examiner.

Services: Alcohol and Drug Abuse programs; Social Service programs serving women and families.

Legality

Not an issue.

References

- 1 Chang J, Elam-Evans LD, Berg CJ, et al. Pregnancy-Related Mortality Surveillance – United States, 1991-1999. MMWR 52(SS02):1-8. February 2003.
- 2 Safe Motherhood: Promoting Health for Women Before, During, and After Pregnancy. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2004.
- 3 National Center for Health Statistics Vital Statistics System, 2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS). February 2005.

Data Sources

† Alaska Maternal-Infant Mortality Review (MIMR), 1990-1999 Data: State of Alaska, DHSS, DPH.

^ Pregnancy Mortality Surveillance System (PMSS), 1991-1999 Data in: Chang J, Elam-Evans LD, Berg CJ, et al. Pregnancy-Related Mortality Surveillance – United States, 1991-1999. MMWR 52(SS02);1-8. February 2003.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

Notes

For national estimates of pregnancy-related mortality ratios, pregnancy-related was defined as a death that occurred during pregnancy or within 1 year of pregnancy and resulted from 1) complications of the pregnancy, 2) a chain of events that was initiated by the pregnancy, or 3) the aggravation of an unrelated condition by the physiologic effects of the pregnancy or its management.



Breast and Cervical Cancer Screening in Alaska

Breast cancer is the most commonly diagnosed cancer among women in Alaska and the United States as a whole; and it is the second leading cause of cancer mortality among women. Many deaths from breast and cervical cancers could be avoided by increasing cancer screening rates among women at risk. Studies show that early detection of breast and cervical cancers saves lives. Timely mammography screening among women aged 40 years or older could reduce breast cancer mortality by approximately 16% compared with women who are not screened. Papanicolaou (Pap) tests can find cervical cancer at an early stage when it is most curable or even prevent the disease if precancerous lesions found during the test are treated.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2002 [†]	Nation 2002 [^]	Healthy People 2010 Goals [*]
Proportion of women ages ≥ 40 receiving a mammogram in the previous two years	72.2%	75.9% (60.3%-85.4%)	70%
Proportion of women ages ≥ 40 receiving a mammogram in their lifetime	87.5%	88.9% (75.4%-94.1%)	---
Proportion of women ages ≥ 18 with an intact cervix receiving a Pap test in the previous three years	87.4%	86.8% (72.7%-92.0%) [‡]	90%
Proportion of women ages ≥ 18 with an intact cervix receiving a Pap test in their lifetime	97.4%	95.0% (81.9%-97.6%)	97%

The national estimates are the median percent of all states that collected this data on the 2002 BRFSS. The range represents estimates from other states participating in for that reporting period. See Data Sources and Notes for details.

[†]2000 data. Note that 2002 data was unavailable for this indicator for the Nation.

- Alaska has achieved the Healthy People 2010 goal (HP2010) of increasing the proportion of women ages 40 and older that have received a mammogram in the previous two years. However, the Healthy Alaskan goal of 76%, which mirrors the Alaska Comprehensive Cancer Control Plan (CCCP), has not been achieved.
- Alaska has not achieved the HP2010 goal for increasing the proportion of women ages 18 and older that have received a Pap test in the previous three years. The Healthy Alaskan goal for this indicator is 95%.
- Alaska has achieved the HP2010 goal for increasing the proportion of women ages 18 and older that have ever received a Pap test. Alaska was one of three states to achieve this goal in 2002.

- Although just under the HP2010 goal in 2002, Alaska was one of four states in 2000 to achieve the HP2010 goal of increasing the proportion of women ages 18 and older having received a Pap test in the previous three years to at least 90%.
- Among all states participating in Behavioral Risk Factor Surveillance System (BRFSS), Alaska was similar to the median percent for each indicator.

Severity

Based on cancer statistics for the years 1999-2001, it is estimated that 1 in 7 women will develop breast cancer at some point during their lives.¹ According to the American Cancer Society, current trends in breast cancer incidence and mortality suggest that an estimated 211,240 new cases of invasive breast cancer will be diagnosed among women, and an estimated 40,410 women will die of this disease in 2005.²

Furthermore, while the incidence of invasive cervical cancer has decreased significantly over the last 40 years, based on current trends in cervical cancer incidence and mortality rates, an estimated 10,370 new cases will be diagnosed and an estimated 3,710 women will die of this disease in 2005.²

Urgency

Breast Cancer

- From 1998-2000, the average annual breast cancer incidence rate among Alaskan women was 141.3 per 100,000 – slightly higher than the Nation as a whole (128.9 per 100,000 in 2000).³
- From 1997-2001, the average annual mortality rate for breast cancer among Alaskan women was 23.9 per 100,000. Breast cancer mortality rates for Alaskan women over the last two decades have been fairly stable, slightly decreasing at 0.6% annually.⁴

- Approximately 1 in 4 Alaskan women ages 40 and older reported that they had not received a mammogram in the previous two years.[†]
- From 1990-2002, the proportion of Alaskan women ages 40 and older that reported receiving a mammogram in the previous two years has increased 24%; however, since 1998 the prevalence has remained relatively unchanged.⁵

Cervical Cancer

- From 1998-2000, the average annual cervical cancer incidence rate among Alaskan women was 8.7 per 100,000 – not significantly different than the Nation (9.2 per 100,000 in 2000).³
- From 1997-2001, the average annual cancer mortality rate among Alaskan women was 1.7 per 100,000 – significantly lower than the Nation for this time period (2.9 per 100,000). The trend in cervical cancer mortality among Alaskan women has significantly declined over the last two decades – with an annual average percent decline of 6.8%.⁴
- Nearly 1 in 8 Alaskan women ages 18 and over reported they did not have a Pap test in the previous three years.[†]
- From 1990-2002, the proportion of Alaskan women ages 18 and older that reported having a Pap test in the previous three years has remained relatively unchanged.⁵

Disparities

Deaths from these diseases occur disproportionately among women who are uninsured or underinsured. Mammography and Pap tests are underused by women who have no source or no regular source of healthcare, women without health insurance, and women who immigrated to the United States within the last 10 years.⁶

Breast Cancer

- Alaska Native women reported a higher prevalence of having a mammogram within the past two years compared to non-Natives. (Figure 1)
- The Gulf Coast region had the lowest percentage of women ages 40 and older that reported having a mammogram in the last two years (63%) – this was the only region to not achieve the HP2010 goal. All other regions were similar, ranging from 71% in Anchorage and vicinity to 78.1% in Southeast.⁵

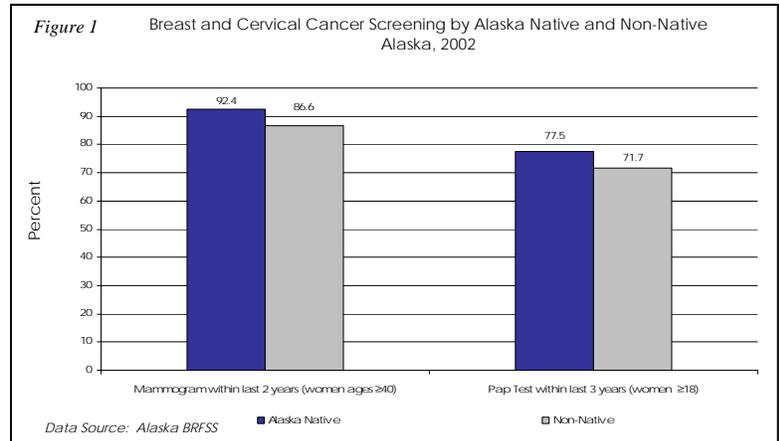
Cervical Cancer

- As age increases, cervical cancer incidence rates increase. During 1997-2001, the cervical cancer incidence rate for Alaskan women ages 55-59 was 2.3 times as high as women ages 25-29, and 1.5 times as high as women ages 40-44.⁷

- Alaska Native women reported a higher prevalence of having a Pap test within the last three years compared to non-Natives. (Figure 1)

Economic Loss

Economic loss was not evaluated.



Interventions & Recommendations

Community oriented interventions recommended by the Task Force for Community Preventative Services (TFCPS) to promote breast cancer screening include: mass media; small media education; and one-on-one education. Furthermore, they recommended the following interventions for health care systems: client reminders to promote breast cancer screening and incentive programs for clients (in conjunction with reminders).⁸

The TFCPS recommends the same interventions to increase cervical cancer screening, with the exception of small media education and one-on-one education.⁸

In addition to recommending adoption of interventions documented by the TFCPS as being effective the CCCP made an Alaskan specific recommendation to promote the Alaska Breast and Cervical Health Partnership, a group of five CDC funded grantees who provide a safety net for women whose economic circumstances prevent them from obtaining breast cancer early detection.⁹

Intervention Effectiveness

Review of published studies by TFCPS found strong evidence that the interventions recommended above were effective in increasing breast and cervical cancer screening.⁸

Capacity

Propriety

Access to breast and cervical cancer screening, to ensure early detection is an issue that falls within the overall mission of the Women's, Children's, and Family Health Section. Increasing breast and cervical cancer screening, as well as reducing mortality due to these cancers, are a national initiatives (HP2010).

Economic Feasibility

Economic consequences of detection in a late stage of disease as opposed to an earlier, more treatable stage include greatly elevated costs of treatment, lower quality of life and increased mortality,

Acceptability

Increasing numbers of women seeking breast and cervical cancer screening through the Alaska Breast & Cervical Health Partnership indicate the target population is accepting of efforts to address morbidity and mortality rates of breast and cervical cancer in Alaska. A request by the Governor for state funds to provide additional cancer screening services indicates support for these efforts from the highest level of state government as well.

Resources

Resources are available to address this issue, primarily through grant funds from the Centers for Disease Control and Prevention to the Alaska Breast and Cervical Health Partnership members. Additional resources include the American Cancer Society; Section 330 Community Health Centers; private non-profit women's health facilities such as Planned Parenthood; state funded Health Centers and the Section of Public Health Nursing; tribal health facilities; and private clinicians.

Legality

Current law allows the issue of cancer screening to be addressed. There are no statutory requirements associated with cancer screening.

References

- ¹ Ries LAG, Eisner MP, Kosary CL, et al. (eds). SEER Cancer Statistics Review 1975-2001. National Cancer Institute. Bethesda, MD. 2004. Available at: http://seer.cancer.gov/csr/1975_2001.
- ² American Cancer Society. Cancer Facts and Figures 2005. Atlanta: American Cancer Society. 2005.
- ³ Alaska State Cancer Registry and the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), CDC. January 2003 data submission.
- ⁴ National Vital Statistics System (NVSS) 1977-2001 Data in: National Cancer Institute (NCI) using Surveillance, Epidemiology, and End Results (SEER) Program. Available at <http://www.statecancerprofiles.cancer.gov>.
- ⁵ Alaska Behavioral Risk Factor Surveillance System (BRFSS) Data: State of Alaska, DHSS, DPH.
- ⁶ Centers for Disease Control and Prevention. The National Breast and Cervical Cancer Early Detection Program: Saving Lives through Screening. Fact Sheet. 2004-2005.
- ⁷ Alaska Cancer Registry, 1997-2001 Data: State of Alaska, DHSS, DPH.
- ⁸ Zaza S, Briss PA, Harris KW. The Guide to Community Preventive Services: What Works to Promote Health? Task Force on Community Preventive Services. 2005.
- ⁹ The State of Alaska's Comprehensive Cancer Control Plan (CCCCP). Department of Health and Social Services, Section of Epidemiology, Division of Public Health. 2004 (in prep).

Data Sources

[†] Alaska Behavioral Risk Factor Surveillance System (BRFSS), 2002 Data in: Balluz L, Ahluwalia IB, Wilmon Murphy W, et al. Surveillance for Certain Health Behaviors Among Selected Local Areas — United States, Behavioral Risk Factor Surveillance System, 2002. MMWR: 53(SS-05). July 2004.

[‡] Behavioral Risk Factor Surveillance System (BRFSS), 2002 Data in: Balluz L, Ahluwalia IB, Wilmon Murphy W, et al. Surveillance for Certain Health Behaviors Among Selected Local Areas — United States, Behavioral Risk Factor Surveillance System, 2002. MMWR: 53(SS-05). July 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

Notes

National estimates for mammogram and Pap test prevalence are the median percent and the range of estimates for all states participating in BRFSS during 2002 that collected data on these topics.

Incidence rates are age-adjusted to the 2000 US standard population by 5-year age groups. Rates are for invasive cancer only.

Death rates are age-adjusted to the 2000 US standard population by 5-year age groups. Population counts for denominators are based on Census populations as modified by the National Cancer Institute. See <http://seer.cancer.gov/popdata/> for more information.



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Title V Needs Assessment: Special Series Fact Sheet

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Unintended Pregnancy in Alaska

Women with unintended pregnancies are more likely to find out that they are pregnant later than women with intentional pregnancies – making intendedness a factor in the newborns' birth outcome.¹ Lack of prenatal care, inadequate birth-spacing, giving birth earlier or later than the prime childbearing years, inadequate folic acid intake early in the pregnancy, drinking, and tobacco use can affect the health of the mother and her newborn infant.

Although teenagers are the highest at-risk group, unintended pregnancy often is mistakenly perceived as predominantly an adolescent problem – however, unintended pregnancy is a problem among all reproductive age groups.²

Pregnancy is considered to be unintended when the woman did not want to be pregnant (unwanted) or desired a later pregnancy (mistimed). For the information presented here, unintended pregnancies are limited to those that result in a live-born infant.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2002†	Nation 1995*	Healthy People 2010 Goal*
Proportion of unintended pregnancies	45.3%	31.0%	≤ 30.0%*

*The HP2010 goal is to reduce the proportion of all unintended pregnancies. Alaska and National estimates are limited to those pregnancies resulting in a live-birth.

- Unintended pregnancy in Alaska was 1.5 times higher than both the Nation as a whole and the Healthy People 2010 target. The estimates for Alaska and the Nation are for only those pregnancies that resulted in a live-birth, therefore, they are conservative estimates since they do not include women whose pregnancy resulted in fetal death, spontaneous abortion, or termination.

Severity

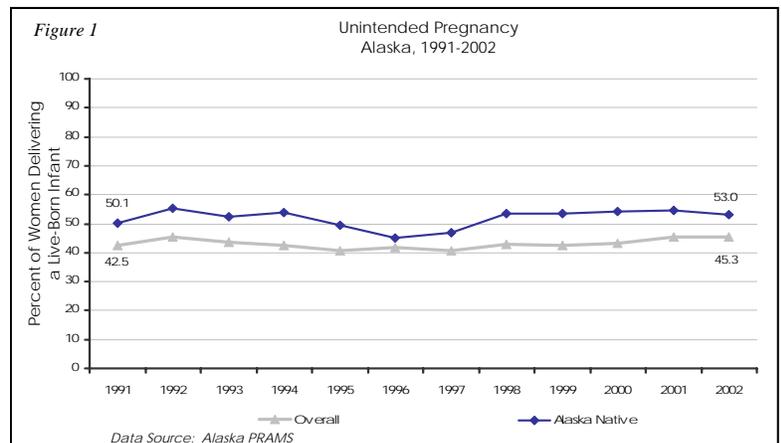
Since an unintended pregnancy could impact a woman's choice to adopt healthy prenatal behaviors, the risk of experiencing a poor birth outcome may be greater for women that choose to continue with the pregnancy. In 2003, there were 178 abortions for every 1,000 births in Alaska – nearly 1,800 abortions to women between the ages of 15 and 44 years.³

Urgency

- From 1991-2002, unintended pregnancies have not changed significantly in Alaska. The overall prevalence increased approximately 7% during this time. (Figure 1)

Disparities

The consequences of unintended pregnancy among teenagers are well documented. They are less likely to get or stay married, less likely to complete high school or college, and more likely to require public assistance and to live in poverty than their peers who are not mothers. Infants born to teenage mothers are more likely to suffer poor birth outcomes such as low birth weight, neonatal death, and sudden infant death syndrome.⁴



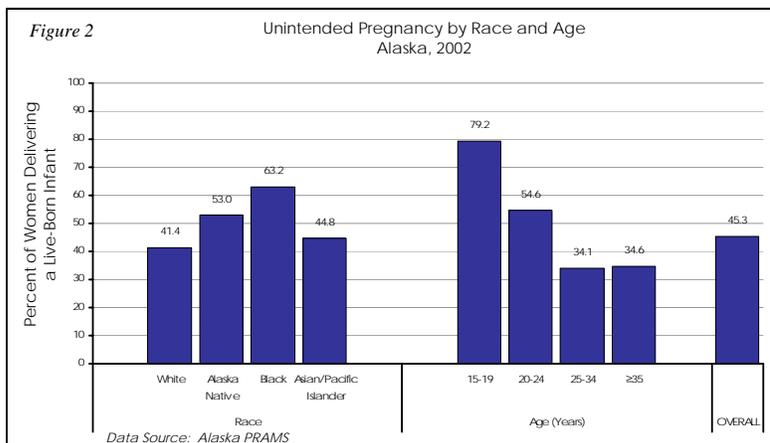
Analysis of Alaska PRAMS data indicated that race, maternal age, education, region, and Medicaid status were associated with unintended pregnancy.

- White mothers had the lowest prevalence of unintended pregnancy and were significantly less likely to have an unintended pregnancy when compared to Alaska Native and black mothers. (Figure 2)
- Over the last decade, the prevalence of unintended pregnancy among Alaska Natives was consistently higher than the overall prevalence. (Figure 1)

- Alaskan teens, ages 15-19, had the highest prevalence of unintended pregnancy compared to all other age groups. (Figure 2)
- Alaskan women with less than a high school education were 1.4 times more likely to have an unintended pregnancy than women that completed high school and 2 times as likely than women with at least some college education to have an unintended pregnancy.[‡]
- During 1999-2001, women living in the Northern (54.0%) and Southwest (53.1%) regions of Alaska had a significantly higher prevalence of unintended pregnancy than women from all other regions.[‡]
- Alaskan women that had prenatal care paid for by Medicaid were 1.6 times as likely to have an unintended pregnancy than those who were not served by Medicaid.[‡]

Economic Loss

Economic loss was not evaluated for this fact sheet, however, the financial impact of an unintended pregnancy



is significant (e.g., abortion, prenatal care, delivery, newborn care, etc.).

Interventions & Recommendations

Education regarding abstinence and contraceptive use and practices, combined with access to and education regarding safe and effective contraception and family planning services, might help reduce the incidence of unintended pregnancy.^{5,6,7,8}

Intervention Effectiveness

Over the course of a year, only 8% of women using the pill will become pregnant, compared with 85% of sexually active women not using contraceptives. It is estimated that 7% of U.S. women are at risk of unintended pregnancy who do not practice contraception – they account for almost half of the country's unintended pregnancies.⁹

A recent study estimated that 32,230 Alaskan women were in need of publicly funded family planning services. These are women who were at risk of an unintended pregnancy, between the ages of 20-44, whose income was 250% below the Federal Poverty Level, and all women less than 20 years of age that were at risk of an unintended pregnancy. Just over 75% received contraceptive services and supplies at publicly funded family planning clinics in 2001.¹⁰

Every public dollar spent on family planning services saves as estimated \$3 in Medicaid costs for prenatal and newborn care.¹¹

Capacity

Propriety

Reducing the rate of unintended pregnancy falls within the overall mission of the Women's, Children's, and Family Health Section. Unintended pregnancy is an important issue among the maternal and child health population – national initiatives have been set forth to address the problem (HP2010).

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Unintended pregnancy is recognized as an issue in the public health community; the benefits of reducing unintended pregnancy suggest this is an issue that would be accepted by the community and target population.

Resources

Data: Alaska PRAMS data can be used to better understand significant risk factors associated with unintended pregnancy in Alaska that can be useful for targeting prevention measures toward high-risk groups.

Title X: The Division of Health Care Services receives federal funding awarded by the Office of Population Affairs (OPA) to administer the Title X Family Planning Services grant in Alaska. Two clinical service providers, located in areas of the state with high numbers of unintended pregnancies, provide confidential, clinical family planning and reproductive health services to high-risk, low-income women and men. In addition to clinical services, the two sites also provide education and referral to other local agencies regarding infant adoption, abstinence education and other risk-reduction counseling.

Title V: Currently the Title V MCH Block Grant funds contracts for nurse practitioners to provide family planning services at three public health centers in addition to the two Title X family planning delegate sites. The MCH block grant also pays for contraceptive pharmaceuticals and laboratory testing services in support of this program.

Legality

Not an issue.

References

- ¹ Kost K, Landry DJ, Darroch JE. Predicting Maternal Behaviors During Pregnancy: Does Intention Status Matter? *Family Planning Perspectives* 30(2): 79-88. 1998.
- ² Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.
- ³ Age Specific Abortion Rates for Alaska 2003. Alaska Department Health & Social Services, Alaska Bureau of Vital Statistics. Available at: http://hss.state.ak.us/dph/bvs/Abortion_statistics/Abortion_Rates/body.html. February 2005.
- ⁴ The Alan Guttmacher Institute. *Sex and America's Teenagers*. New York, NY: The Institute. 1994.
- ⁵ Cabezon C, Vigil P, Rojas I, et. al. Adolescent Pregnancy Prevention: An Abstinence-Centered Randomized Controlled Intervention in a Chilean Public High School. *J Adolesc Health*;36(1):64-9. 2005.
- ⁶ Westoff CF. Contraceptive Paths Toward the Reduction of Unintended Pregnancy and Abortion. *Family Planning Perspectives*;20:4-13. 1988.
- ⁷ Forrest JD. Epidemiology of Unintended Pregnancy and Contraceptive Use. *Am J Obstet Gynecol*;170(suppl):1485-8. 1994.
- ⁸ Gonen JS. Value Purchasing: Investing in Women's Health: Strategies for Employers. Washington, DC: Jacobs Institute of Women's Health. 2000.
- ⁹ The Alan Guttmacher Institute. Preventing Unintended Pregnancy in the U.S. Issues in Brief No. 3. 2004.
- ¹⁰ Frost JJ, Frohwirth L, Purcell A. The Availability and Use of Publicly Funded Family Planning Clinics: U.S. Trends, 1994-2001. *Perspectives on Sexual and Reproductive Health*; 36(5). September/October 2004
- ¹¹ The Alan Guttmacher Institute. *Contraception Counts: Alaska*. New York, NY: The Institute. 2004.

Regional groupings are based on the Alaska Department of Labor Regions as shown in the map below.



Data Sources

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

[^] National Survey of Family Growth, 1995 in; Kost K, Landry DJ, Darroch JE. Predicting Maternal Behaviors During Pregnancy: Does Intention Status Matter? *Family Planning Perspectives* 30(2): 79-88. 1998.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

[‡] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

For Alaska PRAMS data note that the prevalence of unintended pregnancy is only among women that delivered a live-born infant. Unintended pregnancy prevalence for blacks (Figure 2) may be unreliable as there were at least 30 but less than 60 respondents.

The national prevalence of unintended pregnancy is only among women that delivered a live-born infant. Unintended pregnancy data from the recent National Survey of Family Growth are not yet available. Current data for unintended pregnancy among all pregnancies will be available in that survey.



Contraception: Access and Use in Alaska

According to a national study, a woman spends three-fourths of her reproductive life trying not to become pregnant.¹ Although 9 in 10 women who are at risk of an unintended pregnancy use a method of contraception, over half of all unintended pregnancies in the U.S. occur to women who were using contraceptives during the month they become pregnant.²

In the U.S., a large proportion of women, often poor, low-income, or teenage, rely on subsidized services for their family planning care. Many rely on publicly funded family planning clinics for free or low-cost contraceptives.² According to the 2001 and 2002 Current Population Survey, 10% of Alaskan women between the ages of 15-44 have incomes below the federal poverty level and 19% do not have private health insurance or Medicaid.

In addition to preventing unintended pregnancy, the non-contraceptive benefits of oral contraceptive pills are important and are prescribed to many women for the prevention and treatment of endometriosis, hormonal imbalance disorders, acne, and menorrhagia.^{3,4} Oral contraceptives may provide protection against benign breast disease, ovarian cysts, and pelvic inflammatory disease.⁴ Research has shown that compared to non-users, women that use oral contraceptives are 50% less likely to develop endometrial cancer; women that use oral contraceptives for 12 or more years are 80% less likely to develop ovarian cancer.⁴

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska	National	Healthy People 2010 Goal
Proportion of females at risk of an unintended pregnancy who use contraception	70% (1998) [‡]	89.3% (2002) [^]	100%
Proportion of females experiencing pregnancy despite the use of a reversible contraceptive	25.6% (2002) [†]	13.0% (1995) ^{^^}	<7%

The HP2010 goal is to reduce the proportion of all females experiencing pregnancy despite the use of a reversible contraceptive. The estimate for Alaska is limited to only those pregnancies that resulted in a live-birth.

- Although current data is not available for Alaska, data from 1998 suggests that when comparing women at risk of an unintended pregnancy, Alaskan women are less likely to use contraception compared to women in the U.S. as a whole.
- In Alaska, the prevalence of pregnancy despite the use of a reversible contraceptive is nearly 4 times higher than the Healthy People 2010 (HP2010) goal. The estimate for Alaska is only for those pregnancies that resulted in a live-birth, therefore, it is a conservative estimate since it does not include women whose pregnancy resulted in fetal death, spontaneous abortion, or termination.

Increasing access to emergency contraception (EC) is a HP2010 objective. Alaska is currently 1 of 6 states that allow pharmacists to dispense EC without a prescription. In Alaska, pharmacists may dispense any prescription drug, including EC, under collaborative practice agreement.

Severity

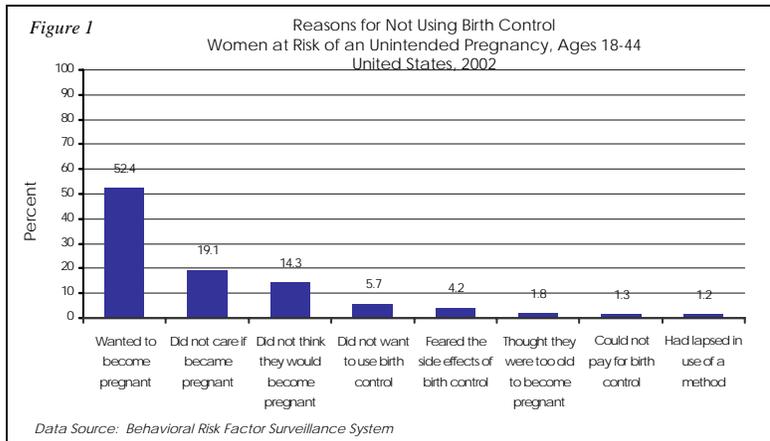
Inadequate access to contraception and improper or inconsistent use of contraception can have serious consequences. Adverse outcomes may include unintended pregnancy, abortion, and greater risk of sexually transmitted diseases. More than one-fourth of all live births in Alaska are conceived despite the use of birth control.[†] The majority of unintended pregnancies among contraceptive users result from inconsistent or incorrect use.⁵

Nationally, approximately half of all unintended pregnancies end in abortion. When the pregnancy is carried to term, the child of an unintended pregnancy is at higher risk of negative outcomes such as low birth weight, dying in the first year of life, not receiving the resources necessary for healthy development, and being neglected or abused. The mother is at greater risk of depression, physical abuse, and not achieving her educational, financial, and career goals. Relationships among couples that have an unintended pregnancy are at three times the risk of dissolution.⁶

Urgency

In 2001, approximately half of the population of Alaskan women ages 15-44 were estimated to be in need of contraceptive services and supplies – of these, 45% were in need of publicly supported contraceptive services.²

A recent analysis of the 2002 Behavioral Risk Factor Surveillance System (BRFSS) estimated that of women at risk of pregnancy and not using birth control in the U.S., only half wanted a pregnancy. Among the reasons for not using birth control, nearly 1 in 5 did not care whether pregnancy occurred and 1 in 77 could not pay for birth control.⁷ (Figure 1)



- Alaska PRAMS data indicated that among Alaskan women delivering a live-born infant, 1 in 4 were using some form of birth control when they became pregnant and 8 in 10 (80.2%) were using birth control when surveyed at approximately three months postpartum.[†]
- In 2002, data from Alaska PRAMS showed that 86.0% of mothers reported that a health care worker talked to them about postpartum birth control use during their prenatal care.[†]

Disparities

According to the 2002 National Survey of Family Growth, age, education, race, and marital status were significantly associated with contraceptive use among women of childbearing age.⁸ Alaska PRAMS data indicated that race, age, and Medicaid status were significantly associated with having a live birth despite use of birth control.[‡]

- In Alaska, black mothers were most at risk of having a live birth despite use of birth control. Nearly half (47.4%) of black women that delivered a live-born infant in 2001 were using some form of birth control when they got pregnant – twice the overall rate for the state (26.7%).[‡]
- Younger mothers were significantly more likely to have a live birth despite use of birth control. In 2002, Alaskan teenagers (15-19 years) and women in their early twenties (20-24 years) had a higher prevalence than all other age groups of having a live birth despite use of birth control. (Figure 2)
- Teen mothers were 70% more likely than mothers 25 years or older to have a live birth despite use of birth control.[‡] Nationally, teenagers are less likely than older women to practice contraception without

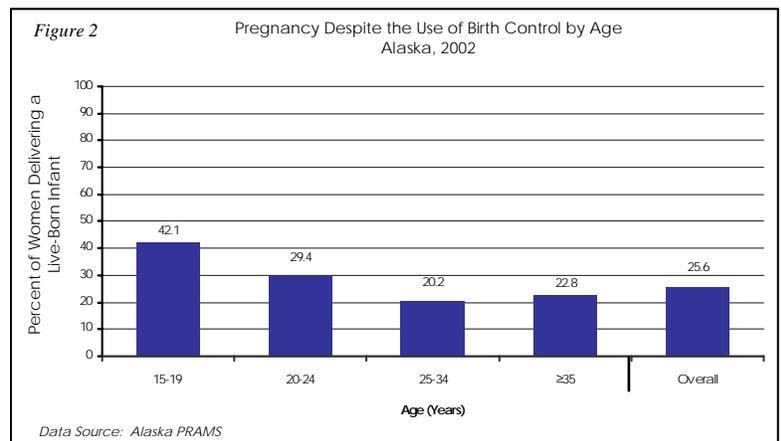
interruption over the course of a year, and more likely to practice contraception sporadically or not at all.⁹

- Alaskan women whose prenatal care was at least partially paid for by Medicaid were significantly more likely to have a live birth despite use of birth control compared to women who did not use Medicaid as payment source for their prenatal care, 33.1% and 22.3%, respectively.[‡]

Economic Loss

Compared to an unintended pregnancy, the costs to society and individuals for contraceptive services and supplies are small. It is estimated that every public dollar spent on family planning services saves \$3 in Medicaid costs for prenatal and newborn care.²

Research suggests that by reducing the direct and indirect costs associated with unintended pregnancy (e.g., abortion, prenatal care, delivery, newborn care, pregnancy-related sick leave, etc.) contraceptive coverage would save employers money. Thus, not covering contraceptives in employee health plans could cost employers an estimated 15% to 17% more than the cost of providing coverage.²



Interventions & Recommendations

Contraceptive use drastically reduces the chances of unintended pregnancy. Over the course of a year, only 8% of women using the pill will become pregnant, compared with 85% of sexually active women not using contraceptives. It is estimated that 7% of U.S. women are at risk of unintended pregnancy and do not practice contraception – they account for almost half of the country's unintended pregnancies.¹⁰

Lack of contraceptive coverage by private health insurance was cited among the reasons for high rates of unintended pregnancy in the United States by the Institute of Medicine. The report noted that many privately insured females who need contraceptive care either pay for it themselves, use over-the-counter methods that may be less effective, or not use any method at all when their insurance company does not cover contraceptive use. The Institute of Medicine recommended increasing the proportion of health insurance policies that cover contraceptive services and supplies.⁶

Healthy People 2010 identified increasing access to contraceptive services and supplies for the Nation as a developmental indicator.

Intervention Effectiveness

Recent research has shown that an estimated 24,530 Alaskan women were served by family planning clinics for contraceptive services and supplies in 2001.¹¹

Increasing awareness and access to emergency contraception can reduce unwanted and mistimed pregnancy. When used within 72 hours after unprotected sexual intercourse, emergency contraception reduces pregnancy by 75%.³

Capacity

Propriety

Promoting behaviors that reduce the rate of unintended pregnancy, improve women's health, and improving birth outcomes falls within the overall mission of the Women's, Children's, and Family Health Section. Family planning is an important issue among the maternal and child health population – national initiatives have been set forth to address increasing contraceptive use and decreasing pregnancy as a result of contraceptive failure, as well as a developmental indicator to increase access to contraceptive services and supplies (HP2010).

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Acceptability was not evaluated.

Resources

Data: Alaska PRAMS and Alaska BRFSS can be used to provide data to monitor trends in contraceptive use, barriers to access to contraception, and risk factors associated with access to contraception, and attitudes of contraceptive use.

Title X: The Division of Health Care Services receives federal funding awarded by the Office of Population Affairs (OPA) to administer the Title X Family Planning Services grant in Alaska. Two clinical service providers, located in areas of the state with high numbers of unintended pregnancies, provide confidential, clinical family planning and reproductive health services to high-risk, low-income women and men. In addition to clinical services, the two sites also provide education and referral to other local agencies regarding infant adoption, abstinence education and other risk-reduction counseling.

Title V: Currently the Title V MCH Block Grant funds contracts for nurse practitioners to provide family planning services at three public health centers in addition to the two Title X family planning delegate sites. The MCH block grant also pays for contraceptive pharmaceuticals and laboratory testing services in support of this program.

Legality

Not an issue.

References

- 1 Forrest JD, Samara R. Impact of Publicly Funded Contraceptive Services on Unintended Pregnancies and Implications for Medicaid Expenditures. *Family Planning Perspectives*, 28(5):188-195. 1996.
- 2 The Alan Guttmacher Institute. *Contraception Counts: Alaska*. New York, NY: The Institute. 2004.
- 3 Cerul-Suhl SL, Yeager BF. Update on Oral Contraceptive Pills. *American Family Physician*. American Academy of Family Physicians: November 1999.
- 4 Association of Reproductive Health Professionals. *Health Benefits of Oral Contraception*. Clinical Proceedings: Successful Contraception: An Update on OCs. March 1999.
- 5 The Alan Guttmacher Institute. *Contraceptive Use*. New York, NY: The Institute. 2004.
- 6 Brown, S.S., and Eisenberg, L., eds. *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families*. Washington, DC: National Academy Press, 1995.
- 7 Tsai J, Floyd RL. Alcohol Consumption among Women Who are Pregnant or Who Might become Pregnant – United States, 2002. *MMWR*: 53(50):1178-1181. December 2004.
- 8 Mosher WD, Martinez GM, Chandra A, Abma JC, Willson SJ. Use of contraception and use of family planning services in the United States, 1982–2002. Advance data from vital and health statistics; no 350. Hyattsville, Maryland: National Center for Health Statistics. 2004.
- 9 The Alan Guttmacher Institute. *Teen Sex and Pregnancy*. New York, NY: The Institute. 1999.
- 10 The Alan Guttmacher Institute. *Preventing Unintended Pregnancy in the U.S. Issues in Brief No. 3*. 2004.
- 11 Frost J, Frohwirth L, Purcell A. The Availability and Use of Publicly Funded Family Planning Clinics: U.S. Trends, 1994-2001. *Perspectives on Sexual and Reproductive Health*. 2004.

Data Sources

¥ Alaska Behavioral Risk Factor Surveillance System (BRFSS), 1998 Data: State of Alaska, DHSS, DPH.

† Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

^ National Survey of Family Growth, 1995 in; Kost K, Landry DJ, Darroch JE. Predicting Maternal Behaviors During Pregnancy: Does Intention Status Matter? *Family Planning Perspectives* 30(2): 79-88. 1998.

^^ National Survey of Family Growth, 2002 Data in: Mosher WD, Martinez GM, Chandra A., et al. Use of Contraception and Use of Family Planning Services in the United States, 1982-2002. Advance Data from Vital and Health Statistics; no 350. Hyattsville, MD: National Center for Health Statistics. 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

‡ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

Alaska PRAMS estimates of pregnancy despite the use of birth control are limited to women who delivered a live-born infant. In the PRAMS survey, “birth control” is not necessarily defined as a reversible contraceptive. Data are derived from a question that lists the following: “not having sex at certain times [rhythm], and using birth control methods such as the pill, Norplant®, shots [Depo-Provera®], condoms, diaphragm, foam, IUD, having their tubes tied, or their partner having a vasectomy.”



Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 2 No. 5

Sexually Transmitted Diseases and HIV among Women in Alaska

The Centers for Disease Control and Prevention estimate that 18.9 million new sexually transmitted diseases (STDs) occur each year in the United States and that more than 65 million people are living with an incurable STD.¹ Chlamydia and gonorrhea were the most frequently reported infectious diseases in 2003.²

Women and infants disproportionately bear the long-term consequences of STDs.^{3,4} Infection among women can have severe general and reproductive health consequences. In addition, many STDs can be passed from mother to infant during childbirth, resulting in potentially fatal neonatal infections and other health problems.²

Seriousness

Health People 2010 Targets and National Data

Indicator	Alaska 2003†	Nation 2003^	Healthy People 2010 Goal*
Incidence of gonorrhea among women rate per 100,000	109.1	118.8	19
Proportion chlamydia infections among females ages 15-24 attending family planning clinics	6.0%	6.4%	3.0%
Proportion chlamydia infections among females ages 15-24 attending STD clinics	7.5%	14.1%	3.0%
Sustained domestic transmission of primary and secondary syphilis among women rate per 100,000	0.0	0.8	0.2
Congenital Syphilis per 100,000 live births	0.0	10.3	1.0

- Although the rate for gonorrhea in Alaskan women is slightly lower than the national rate, it is 5.7 times the Healthy People 2010 (HP2010) goal.
- The proportion of chlamydia infections among females ages 15 to 24 years attending family planning and STD clinics are 2 and 2.5 times the HP2010 goal, respectively.
- Alaska met the HP2010 goal for transmission of primary and secondary syphilis among women and the incidence of congenital syphilis among infants.
- Alaska's reported chlamydia rate for women in 2003 was the highest in the Nation at 858 per 100,000 – 1.8 times that of the U.S. as a whole.

Severity

STDs, mainly untreated chlamydia and gonorrhea, are the main preventable cause of pelvic inflammatory disease (PID). PID can lead to serious consequences including infertility, pelvic abscess and chronic pelvic pain.^{2,5} Pelvic inflammatory disease (PID) also increases the risk of ectopic pregnancy. Among women with PID, 9% will have an ectopic pregnancy due to tubal scarring.²

Chlamydia is the most frequently reported bacterial STD in the Nation.² More than 50% of all preventable infertility among women is a result of infection with chlamydia and three-quarters of all women infected have no symptoms. Infected women are up to 5 times more likely to become infected with HIV, if exposed.⁶

Some types of human papilloma virus (HPV), which can be transmitted through sexual intercourse, can cause cervical cancer. Other cancers caused by STDs include liver cancer, T-cell leukemia, Kaposi's sarcoma, and body cavity lymphoma.⁴

A pregnant woman with a sexually transmitted disease has an increased risk of preterm labor, premature rupture of membranes, and uterine infection after delivery.⁷ Chlamydia is a leading cause of early infant pneumonia and conjunctivitis in newborns.⁶ Other poor perinatal outcomes may include stillbirth, low birth weight, neonatal sepsis, neurological damage, blindness, deafness, acute hepatitis, meningitis, chronic liver disease, and cirrhosis.⁶

Urgency

- The rate of reported gonorrhea cases among Alaska women more than doubled from 1999 to 2003.[†]
- The rate for reported cases of chlamydia among Alaska women increased by more than 75% from 1999 to 2003.[†] Part of this increase may be attributed to the expansion of chlamydia screening activities.²

Disparities

National surveillance data indicated that sex, age, and race and were associated with higher incidence of STDs.²

- Women were 3 times as likely to have chlamydia, and more than 2 times as likely to have gonorrhea compared to men.⁴
- Women ages 15-19 and 20-24 were significantly more likely to be infected with STDs than other age groups. Furthermore, the average age for a woman infected with chlamydia was lower than the average age for a man.⁴
- In 2000, approximately half (48%) of new STD cases in the U.S. were among people ages 15-24 years.⁴
- Chlamydial infection in Alaska was significantly higher among Alaska Natives – with a reported rate of 1,196 per 100,000, accounting for 46% of chlamydia cases while comprising only 18% of the population.⁵
- Like the Nation, the trend of new HIV infection among Alaskan women is increasing faster than among men.⁸

Economic Loss

In 2000, the estimated direct medical costs of STDs acquired by individuals younger than 25 years were \$6.5 billion. Female adolescents experience a large proportion of the costs. The average lifetime cost per case of chlamydial infection to female adolescents is \$244 compared with a per-case cost of \$20 to male adolescents.⁹

The cost of treating HIV/AIDS over a lifetime is estimated at \$155,000 per person.¹⁰

Interventions & Recommendations

Primary Interventions: Promote responsible adolescent sexual behavior targeting by targeting protective behaviors that reduce the risk of STD and unintended pregnancy, such as, promote abstinence from intercourse, limiting the number of sexual partners, and using condoms consistently and correctly.¹¹

Secondary Interventions: Increase the level of STD screening for individuals at risk, especially youth and pregnant females, by making urine-based chlamydia and gonorrhea testing routine, free, and available in nontraditional health care settings. Promote the use of the new rapid HIV test, and increase the proportion of individuals receiving HPV vaccine.

Intervention Effectiveness

Increasing and maintaining the proportion of youth who exhibit protective behaviors reduces the risk of contracting infection. The most effective education programs are those that emphasize abstinence and communication about sexual issues, but also contraception and use of condoms.¹²

Routine STD screening of all young women attending family planning clinics, who are under age 24 captures a large percentage of prevalent infections and should reduce the incidence of PID.¹³ Supporting widespread screening of young people should effectively identify additional cases.

Given that there are now proven treatments to reduce the progress of HIV and to virtually halt perinatal infection, widespread screening with the new rapid HIV test seems plausible in settings not previously deemed appropriate for HIV testing. Making the rapid test more widely available has the potential for dramatically expanding the number of individuals accepting the screening. For example, the Municipality of Anchorage Reproductive Health Clinic now takes its rapid HIV screening tests to nontraditional settings such as popular “hang outs” of youth and target groups, rather than waiting for clients to come to the clinic site for testing.

Capacity

Propriety

Issues of STD infection and its impact on the health of women, children, and especially infants falls within the overall mission of the Women’s, Children’s, and Family Health (WCFH) Section. Responsibility for addressing the STD problem is shared with the Section of Epidemiology and the Section of Public Health Nursing. National initiatives have been set forth to address this issue (HP2010) and the Maternal and Child Health Bureau requires the collection and monitoring of two STD indicators among the population of women of childbearing age on a yearly basis (Title V Block Grant).

Economic Feasibility

The WCFH Section has the capacity to retain the department’s federal grant for abstinence education of youth.

The WCFH Section does have a dedicated liaison with the State’s Infertility Prevention Program (“Chlamydia screening project”) so the Section does have influence in regional and state chlamydia and gonorrhea screening efforts. The state does not currently contribute funds to this program for additional testing. All current funds from the CDC IPP grant are directed to the public health laboratory to purchase testing materials. The IPP committee structure addresses a wide variety of STDs due to the common transmission patterns of many STDs and the frequency of co-infection.

Acceptability

Sexuality education targeting youth with messages regarding responsible and appropriate sexual behavior are controversial. Despite the evidence that prevention education which includes condom and/or birth control use is more effective, abstinence-only programs are receiving the only encouragement and increases in funding from the federal government.

Screening activities focused on youth are similarly controversial. There is continuing pressure to include parental consent for such services to minors. Public health facilities continue to be primary providers of screening services to youth as well as for low-income individuals and those who are seeking confidential care.

Resources

The “abstinence education” grant will be continued. Title X Family Planning Program provides comprehensive and confidential services, but in only two locations. Two other Title X grantees provide services in Alaska: Planned Parenthood of Alaska (4 sites), and the Municipality of Anchorage (2 sites).

Public Health Centers statewide provide screening, diagnosis, and sometimes, treatment services.

The IPP project provides testing supplies and laboratory services to select facilities statewide.

The Breast & Cervical Cancer Screening program screens for cervical cancer, provides HPV typing, and other diagnostic services for cervical cancer and precancerous conditions known to be caused by sexually transmitted infection. This program could be instrumental in distribution and administration of HPV vaccine should it become approved for general use.

Legality

Not an issue.

References

- ¹ Healthy People 2010. U.S. Department of Health and Human Services. Progress Review: Sexually Transmitted Diseases. July 2004.
- ² Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.
- ³ Ebrahim SA, McKenna MT, Marks JS. Sexual behavior: Related adverse health burden in the United States. *Sex Trans Infect* 2005; 81: 38-40.
- ⁴ Institute of Medicine. The Hidden Epidemic: Confronting Sexually Transmitted Diseases. National Academy Press, Washington DC. 1997.
- ⁵ State of Alaska, DHSS, DPH, Section of Epidemiology. Pelvic Inflammatory Disease (PID): Diagnostic Suspicion and Early Treatment Lessen Complications. Bulletin 7(3), October 2003.
- ⁶ Centers for Disease Control and Prevention. Chlamydia Fact Sheet. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. May 2004.
- ⁷ Centers for Disease Control and Prevention. STDs and Pregnancy Fact Sheet. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. May 2004.
- ⁸ State of Alaska, DHSS, DPH, Section of Epidemiology. HIV Prevention Plan 2002-2004.
- ⁹ American College of Obstetricians and Gynecologists (ACOG). Sexually Transmitted Diseases in Adolescents. Committee Opinion No. 301. October 2004.
- ¹⁰ Healthy People 2010. U.S. Department of Health and Human Services. Progress Review: HIV. August 2003.
- ¹¹ Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.
- ¹² Institute of Medicine. The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families. Chapter 8: Programs to Reduce Unintended Pregnancy. National Academy Press. 1995.
- ¹³ Centers for Disease Control and Prevention. Sexually Transmitted Disease Treatment Guidelines. MMWR: 51(RR6). May 2002.

Data Sources

[†] Alaska Sexually Transmitted Disease Surveillance, 2003 Data in: Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

[^] Sexually Transmitted Disease Surveillance, 2003 Data in : Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services, Division of Sexually Transmitted Diseases. September 2004.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



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Low Birth Weight and Preterm Births in Alaska

Compared to infants of normal weight, low birth weight (LBW; less than 2,500 grams) and very low birth weight (VLBW; less than 1,500 grams) infants are at increased risk of impaired development, such as delayed motor and social development.^{1,2} Studies have shown that children who were born at low birth weights were more likely to have learning disabilities and be adversely affected in their performance at school than children who were born at normal birth weight.

The majority of low and very low birth weight infants are born preterm (less than 37 weeks gestation). Nationally, preterm birth is the leading cause of neonatal deaths not associated with birth defects.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003 [†]	Nation 2003 [^]	Healthy People 2010 [^]
Proportion of low birth weight births	5.9%	7.9%	5.0%
Proportion of very low birth weight births	0.9%	1.4%	0.9%
Proportion of preterm births	11.0%	12.3%	7.6%
National data for 2003 is preliminary.			

- Alaska has made significant progress toward achieving the Healthy People 2010 (HP2010) goals. Alaska achieved the HP2010 goal of 0.9% for VLBW in 2002 and 2003. In addition, LBW and VLBW among singleton births during 2003 met the HP2010 goals, with rates of 4.4% and 0.7%, respectively.
- Preterm birth in Alaska, although slightly lower than the Nation as a whole, was nearly 1.5 times the HP2010 goal.
- Nationally, rates of LBW and VLBW were 1.3 and 1.6 times higher compared to Alaska. Preliminary national data showed that Alaska ranked number one for LBW.
- In Alaska, 1 in 23 singleton live births was LBW, and nearly 1 in 140 was VLBW.
- In Alaska, 1 in 9 live births was preterm.

Severity

For infants born at very low birth weights the risk of dying in the first year of life is 100 times that of normal birth weight infants and the risk for moderately low birth weight (1,500–2,499 grams) infants is more than five times higher.³ Low birth weight, especially very low birth

weight, infants that survive are more likely to suffer from long-term disabilities, such as cerebral palsy, blindness, or other chronic conditions.¹

From 1994-2003, the average mortality rate due to short gestation/low birth weight was 45.6 per 100,000 infants.[†]

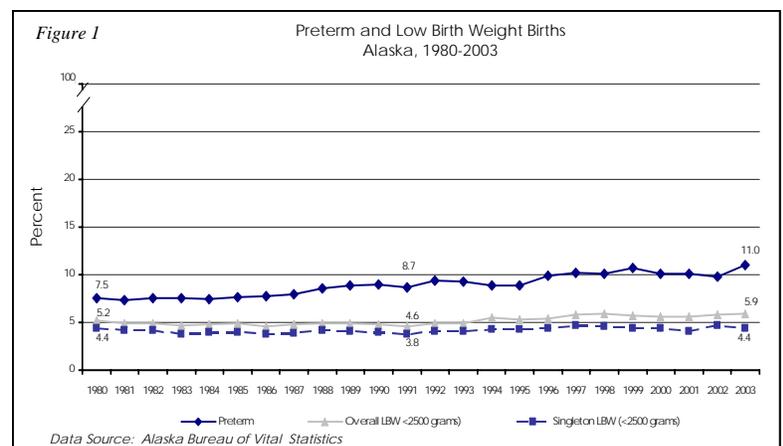
Urgency

Preterm

- From 1980-2003, the overall percentage of infants born preterm in Alaska increased nearly 50% – with 2003 a record high for the State. (Figure 1)

Low Birth Weight

- From 1991-2003 there was a significant increase in the percentage of overall and singleton LBW and VLBW in Alaska. Remaining relatively constant during the 1980s, LBW increased 26.9% overall and 16.4% for singleton births from 1991 to 2003. (Figure 1)



Disparities

Preterm

Risk factors associated with preterm birth include: multiple birth; previous preterm delivery; stress; infection; vaginal bleeding; smoking; illicit drugs; low prepregnancy underweight; and maternal age extremes. Women that are less than 17 or over 35 years of age are at increased risk of premature birth.⁴

- Compared to singleton births in 2002, multiple births were about 7 times more likely to be born preterm.⁵
- Over the last decade, the percentage of preterm infants born to white mothers has consistently been lower than any other race. However, it is the only race-specific rate to increase significantly (37% from 1990 - 2003).[†]
- From 1980 to 2003, the preterm birth disparity between Alaska Native and white mothers has significantly decreased. Unfortunately, this was due to the significant increase of preterm birth among white mothers and not a decline among Alaska Native mothers.[†]
- Blacks had higher rates of preterm birth than any other race over the last decade. Infants born to black mothers in 2003 were 1.6 times more likely to be born preterm than whites. This disparity has not changed over the last two decades. (Figure 2)

Low Birth Weight

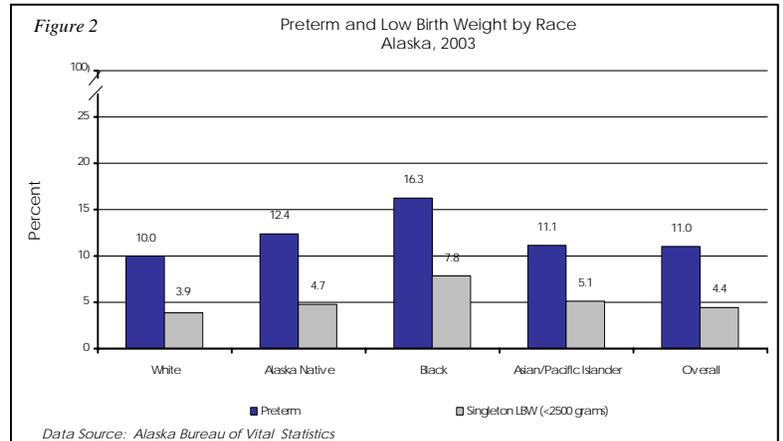
Accounting for 20-30% of all LBW births in the United States, prenatal cigarette smoking is the greatest known risk factor for low birth weight births.^{6,7} Other risk factors associated with LBW include: multiple birth; preterm delivery; poor nutrition; maternal age extremes; and short inter-pregnancy interval.⁴ Multiple birth infants are significantly more likely to be born preterm and of low birth weight than singletons.⁸ As maternal age increases, multiple births are significantly more likely.

- In Alaska, the percentage of multiple births stayed relatively constant through the 1980s, accounting for approximately 2% of all births. Over the last decade, the percentage increased significantly – from 2.3% of all births in 1990 to 3.1% in 2003, accounting for one-fourth of all LBW for that year.[†]
- In 2003, more than half of all multiple births in Alaska were LBW, of these, nearly 12% were VLBW.[†]
- In 2003, LBW was significantly more likely among multiple births compared to singleton births – the percentage was 12 times that of singleton births.[†]
- Among singleton births, black mothers were twice as likely to have a LBW infant as white mothers and 1.6 times that of Alaska Native mothers. (Figure 2)

Economic Loss

In 2002, charges for hospital stays for infants with any diagnosis of prematurity was estimated at \$15.5 billion for the United States.⁹ On average, hospital charges for newborns without complications run \$1,500, compared to \$79,000 in costs for hospital stays for infants with a principal diagnosis of prematurity.⁹

There can also be life-long costs for those with long-term health problems, such as cerebral palsy, blindness, or other chronic conditions.



Interventions & Recommendations

Primary Interventions: Prevention of unintended pregnancy as well as early and continuous prenatal care may improve infant outcomes. According to the Surgeon General, women who quit smoking before or during pregnancy reduce the risk of preterm delivery and low birth weight. Furthermore, women who stop smoking by the first trimester have infants with weight and body measurements comparable with those of nonsmokers⁷. Studies also suggest that smoking in the third trimester is particularly detrimental.⁷

Secondary Interventions: Some studies have shown that women with vaginal infections such as bacterial vaginosis (BV) and trichomoniasis are at increased risk of premature delivery – antibiotic treatment may reduce this risk. Tocolytic and corticosteroid therapies may prolong pregnancy and reduce some of most serious complications of prematurity, such as respiratory distress syndrome and infant mortality but their use should be limited to those with true preterm labor (before 34 weeks) or who are at high risk for spontaneous preterm birth. The American College of Obstetricians and Gynecologists also recommends progesterone treatment be restricted to women who have previously delivered a premature singleton.⁴

Intervention Effectiveness

Recent studies have shown that only some of the common interventions listed above are effective.

Studies have shown that the occurrence of LBW could be reduced by an estimated 20% if all pregnant women were non-smokers.^{10,11} Women are more likely to stop smoking during pregnancy, both spontaneously and with assistance, than at other times in their lives. Since women are highly motivated to stop smoking during pregnancy, programs that encourage women to stop smoking before, during and after pregnancy deserve high priority.⁷

Since many women who lack adequate prenatal care may also have risk factors related to poverty and young maternal age – factors that cannot be fully addressed through more adequate prenatal care – there is concern that increased use of prenatal care alone may not be sufficient to significantly improve birth outcomes.^{12,13} Likewise,

bedrest and drug therapy to stop uterine contractions have not been shown to be routinely effective for preventing preterm delivery.¹⁴

Treatment with the hormone progesterone has been shown to reduce the incidence of premature birth in women who had a previous preterm birth. Tocolytics and corticosteroids are effective in reducing the incidence of the most serious complications of prematurity, including respiratory distress syndrome and bleeding in the brain.¹⁴ However, most studies of high-risk women failed to show that antibiotics reduce the risk of prematurity in most women with BV and trichomoniasis.⁴

Capacity

Propriety

Supporting initiatives to reduce low birth weight and preterm births among Alaskan women falls within the overall mission of the Women's, Children's, and Family Health Section. National initiatives have been set forth to address low birth weight and preterm birth objectives (HP2010) and the Maternal and Child Health Bureau requires that indicators related to reducing low birth weight births (NPM#15 and #17; HSCI #5 and #6; HIS #1A-2B) are monitored and assessed on a yearly basis.

Economic Feasibility

Economic feasibility has not been evaluated.

Acceptability

Surveys show that most people don't know how serious or widespread the problem is. According to the March of Dimes (MOD), only 35% of people surveyed in 2002 considered prematurity to be a serious problem. The MOD National Prematurity Campaign is trying to increase community awareness through national television, radio and print media.

Resources

Data: Alaska Bureau of Vital Statistics
March of Dimes National Prematurity Campaign

Legality

Not an issue.

References

- 1 Hack M, Klein NK, Taylor HG. Long-Term Developmental Outcomes of Low Birth Weight Infants. *Low Birth Weight. The Future of Children*: 5(1):19-34. Los Altos, CA: Center for the Future of Children. The David and Lucile Packard Foundation. 1995.
- 2 Hediger M L., Overpeck, MD, Ruan WJ, Troendle, JF. Birthweight and Gestational Age Effects on Motor and Social Development. *Pediatric and Prenatal Epidemiology*: 16:33-46. 2002.
- 3 Mathews TJ, Menacker F, MacDorman MF. Infant mortality statistics from the 2001 period linked birth/infant death data set. *National Vital Statistics Reports*: 52(2). Hyattsville, Maryland: National Center for Health Statistics. 2003.
- 4 Assessment of Risk Factors for Preterm Birth. ACOG Practice Bulletin No. 31. American College of Obstetricians and Gynecologists. *Obstet Gynecol*: 98:709-16. 2001.
- 5 National Center for Health Statistics, Final Natality Data. 2002. Retrieved February 2005, from www.marchofdimes.com/peristats
- 6 Healthy People 2010. U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.
- 7 U.S. Department of Health and Human Services. *The Health Consequences of Smoking: A Report of the Surgeon General*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.

- 8 Hamilton BE, Martin JA, Sutton PD. Births: Preliminary Data for 2003. *National Vital Statistics Reports*: 52(10). Hyattsville, Maryland: National Center for Health Statistics. 2004.
- 9 Agency for Healthcare Research and Quality, Nationwide Inpatient Sample. 2002. Retrieved February 2005, from www.marchofdimes.com/peristats.
- 10 Alameda County Low Birth Weight Study Group. Cigarette Smoking and the Risk of Low Birth Weight: A Comparison in Black and White Women. *Epidemiology* 1990;1(3):201-5.
- 11 Cnattingius S, Forman MR, Berendes HW, Graubard BI, Isotalo L. Effect of Age, Parity, and Smoking on Pregnancy Outcome: A Population-Based Study. *American Journal of Obstetrics and Gynecology* 1993; 168(1 Pt 1):16-21.
- 12 Misra, D.P. and Guyer, B. Benefits and Limitations of Prenatal Care: From Counting Visits to Measuring content. *JAMA*: 279:20. 1998
- 13 Shiono PH, Behram RE. *Low Birth Weight: Analysis and Recommendations. The Future of Children*: 5(1). Los Altos, CA: Center for the Future of Children. The David and Lucile Packard Foundation. 1995.
- 14 Management of Preterm Labor. ACOG Practice Bulletin No. 43. American College of Obstetricians and Gynecologists. *Obstet Gynecol*: 101:1039-47. 2003.

Data Sources

† Alaska Bureau of Vital Statistics, 2002, 2003: State of Alaska, DHSS, DPH. Jan 2005.

^ Hamilton BE, Martin JA, Sutton PD. Births: Preliminary Data for 2003. *National Vital Statistics Reports*; 52(10). Hyattsville, Maryland: National Center for Health Statistics. 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



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Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 11

Birth Defects among Infants and Children in Alaska

Birth defects are a leading cause of mortality – accounting for approximately 20% of deaths to infants in Alaska and the U.S. as a whole. Genetic, environmental, and maternal illness during pregnancy are factors that can cause birth defects, however, the causes for about 70% of birth defects are unknown.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska	Nation	Healthy People 2010 Goals ¹
Infant mortality due to birth defects per 1,000 live births	1.5 (2000-02) [†]	1.4 (2000-02) [^]	1.1
Incidence of spina bifida and other neural tube defects (NTDs) per 10,000 live births	5.7 (2000-02) [‡]	4.8 (2000) [¥]	3

- Although not significantly different from the Nation, the rate of infant mortality due to birth defects is 40% higher than the Healthy People 2010 (HP2010) goal.
- Although Alaska has made considerable improvement for this objective, the incidence of spina bifida and other neural tube defects (NTDs) in Alaska is nearly 2 times that of the HP2010 goal.
- Compared to the Nation, the incidence of NTDs is approximately 20% higher in Alaska.

Severity

Birth defects are the leading cause of infant mortality and contribute substantially to illness and long-term disability.

A neural tube defect occurs when the neural tube fails to close properly, leaving the developing brain or spinal cord exposed to amniotic fluid. The two most common NTDs are anencephaly and spina bifida. Spina bifida can result in paralysis of the infant's legs, loss of bowel and bladder control, water on the brain (hydrocephalus), and learning disabilities. Approximately 80%-90% of infants born with spina bifida live. Anencephaly is a fatal condition, often resulting in miscarriage. Infants that are born alive die shortly after birth.¹

Urgency

Approximately 18% of infants born in Alaska are reported to the Alaska Birth Defects Registry (ABDR) with at least one reportable birth defect, and approximately 5% are born with at least one major congenital anomaly. Major congenital anomalies are those that are defined and monitored by the National Birth Defects Prevention Network.

- During 2000-2002, among Alaskan infants that died before their first birthday, more than 1 in 5 died as a result of a birth defect.[†]
- The incidence of spina bifida and other NTDs declined from 9.0 per 10,000 live births during the time period 1996-1998 to 5.7 per 10,000 live births during the time period 2000-2002 – a decrease of 37%.[‡]
- Cardiovascular defects are the most common major anomalies reported to the ABDR, affecting roughly 1 in 60 newborns.² Taken individually, three of the most frequently reported birth defects classified as major defects are cardiovascular defects: atrial septal defect, ventricular septal defect, and patent ductus arteriosus (86.1, 77.1, 57.2 per 10,000 live births, respectively).³

Disparities

There are substantial differences in the number of children with anomalies reported by region, with the highest rates in the Interior and Southeast regions, and the lowest in the Northern and Gulf Coast. The ABDR recently started a case verification process, which involves chart reviews to confirm reported anomalies. As this process continues, some of the regional differences may change. Additionally, there are substantial racial disparities in some disorders: for example, Alaska Natives are at high risk of FAS and congenital adrenogenital syndrome, African-Americans are at high risk for sickle cell disease, and Caucasians are at high risk for cystic fibrosis and phenylketonuria.

Major Birth Defects in Alaska Birth Years 1996-1999		
Birth Defect	Rate per 10,000	Number of Affected Live Births
Cardiovascular	176.7	1 in 60
Genitourinary	66.2	1 in 150
Gastrointestinal	58.9	1 in 170
Musculoskeletal	48.9	1 in 205
Central Nervous System	47.9	1 in 210
Orofacial	28.6	1 in 350
Chromosomal	17.8	1 in 560
Fetal Alcohol Syndrome*	16.0	1 in 625
Eye	8.0	1 in 1,250
Ear	3.5	1 in 2,860

* Fetal Alcohol Syndrome data are for birth years 1996-1998

Data Source: *Alaska Birth Defects Registry* from:
Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 70-71 June 2003.

Economic Loss

Surgery and other medical procedures can mediate some anomalies, but treatment is often long lasting, painful and expensive. Some, such as Fetal Alcohol Syndrome, cause life-long impairments. A study by the California Birth Defects Monitoring Program estimated that the total medical costs for children born in the US during 1992 with at least one of the most common structural birth defects and/or cerebral palsy topped \$2 billion; lifetime costs for them were over \$8 billion.⁴

The average total lifetime cost for each infant born with spina bifida is approximately \$532,000 per child.¹

Interventions & Recommendations

Primary prevention: Preventable birth defects include those that result from drug, alcohol, chemical exposure, and conditions due to vaccine-preventable infections (varicella, rubella). Furthermore, the U.S. Public Health Service and the Institute of Medicine recommend that all women of childbearing age consume 0.4 mg of folic acid daily to reduce the risk of an NTD-affected pregnancy.⁵ By consuming the recommended daily intake of folic acid, the risk of an NTD-affected pregnancy is reduced 50%-70%.⁶

The Alaska Pregnancy Risk Assessment Monitoring System found that overall knowledge of folic acid benefits among mothers of newborns increased from 63% in 1996 to 81% in 2001.⁷ A countrywide survey in 2004 found that 82% of respondents who were currently pregnant or had been pregnant within the previous two years knew about folic acid.⁸

Secondary prevention: This includes voluntary prenatal diagnosis, genetic counseling, and selective termination of pregnancy for genetic disorders such as Trisomy 13, 18, and other chromosomal anomalies, and inoperable fetal cardiac defects. These activities require that women seek prenatal care and that high quality diagnostic services are available. Currently, only one provider in Alaska has received certification in nuchal cord translucency measurement, a technique used to predict chromosomal anomalies.

Tertiary Prevention: Many congenital anomalies, such as cardiac defects and oral clefts, can be surgically treated; preventing adverse outcomes (including death) associated with the anomaly.

The Alaska Infant Learning Program (ILP) includes several reportable birth defects among the screening criteria used to identify children needing its support. About 20% of the children reported to the ABDR from 1996-2004 received ILP services. The per capita cost of care for that program is about \$4,200.

Intervention Effectiveness

The benefits of secondary and tertiary prevention measures have been shown. Primary prevention measures are less quantifiable. The ABDR will conduct a follow-up survey to learn more about trends in the knowledge, attitudes and behaviors associated with folic acid consumption by women at risk during February or March 2005. The FAS Fact Sheet reviews FAS specific interventions.

Capacity

Propriety

Reducing birth defects and adverse outcome associated with birth defects fall within the overall mission of the Women's, Children's, and Family Health Section. National initiatives have been set forth to address this issue (HP2010).

Economic feasibility

Most birth defects are amenable to therapeutic intervention. Primary and secondary prevention, however, are more cost-effective measures. Emphasis should be placed on effective primary prevention measures, such as folic acid awareness.

Acceptability

Primary prevention and therapeutic intervention are well accepted. Secondary prevention is more problematic because of the controversies surrounding abortion, even when a fetus has a fatal congenital anomaly. ABDR is well accepted by the community.

Resources

Alaska Birth Defects Registry; FAS Surveillance Project; Alaska Infant Learning Program; Alaska Folic Acid Coalition.

Title V funding provides the foundation for the genetics and specialty clinics, development/distribution of folic acid materials, and the State's involvement in recruiting needed pediatric subspecialists. ILP is supported by a combination of state general funds and federal program dollars. The ABDR is presently funded by a grant from the Centers for Disease Control and Prevention (CDC). In October 2004, a proposal seeking a new five-year grant was submitted to the CDC. If that proposal was unsuccessful, ABDR grant funds will be exhausted by late CY 2005.

Legality

Physicians, hospitals, and other health care facilities and providers must report children from birth up to one year of age who have any of the reportable birth defects under the Alaska Administration Code (7 AAC 27.012).

References

- ¹ Centers for Disease Control and Prevention. National Center on Birth Defects and Developmental Disabilities: Folic Acid Now Fact Sheet. 2004.
- ² Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 70-71 June 2003.
- ³ Alaska Birth Defects Counts and Rates, 1997-2001 in: Birth Defects Data. Birth Defects Research (Part A). *Teratology*; 70:677-771. 2004
- ⁴ California Birth Defects Monitoring Program. The National Cost of Birth Defects. September 1995.
- ⁵ Institute of Medicine (IOM). Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin, and Choline. National Academy Press. Washington, D.C. 1998.
- ⁶ CDC. Recommendations for the Use of Folic Acid to Reduce the Number of Cases of Spina Bifida and Other Neural Tube Defects. *MMWR*: 41(RR-14): 2-3. 1992.
- ⁷ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).
- ⁸ The Gallup Organization. Folic Acid and the Prevention of Birth Defects: a National Survey of Pre-Pregnancy Awareness and Behavior among Women of Childbearing Age, 1995 - 2004. September 2004.

Data Sources

[†] Alaska Bureau of Vital Statistics, 2000-2002 Data: State of Alaska, DHSS, DPH. January 2005.

[‡] Alaska Birth Defects Registry (ABDR), 2000-2002 Data: State of Alaska, DHSS, DPH. February 2005.

[¥] National Center on Birth Defects and Developmental Disabilities (NCBDD), 2000 Data in: Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000

[^] National Center for Health Statistics (NCHS) Vital Health Statistics System, 2000-2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Feb 2005.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

Notes

Estimates of spina bifida and other neural tube defects include spina bifida, anencephaly, and encephalocele.

Findings from the Alaska Birth Defects Registry presented here are based on passive reporting to the ABDR and not verified by case chart review.



Fetal Alcohol Syndrome & Other Effects of Prenatal Alcohol Exposure in Alaska

Fetal Alcohol Syndrome (FAS) and other effects of maternal drinking during pregnancy are 100% preventable – if a woman does not drink any alcohol while she is pregnant. FAS is the leading non-hereditary cause of mental retardation. Many children born affected by maternal drinking during pregnancy have irreversible conditions including severe brain damage that causes permanent, lifelong disability – even if they don't meet the criteria for full FAS (see Notes for definition)

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 1995-97†	Nation 1995-97^	Healthy People 2010 Goal*
Prevalence of Fetal Alcohol Syndrome per 1,000 live births	1.5	0.3-1.5	Developmental

^Range represents prevalence rates from 1995-1997 for 4 states participating in FASSNet. Refer to Data Sources and Notes for more information.

- Reducing the prevalence of FAS is a developmental Healthy People objective, and national goals have not yet been defined. However, the Healthy Alaskan 2010 target is 0.5 per 1,000 live births – much lower than the current rate in Alaska.
- Since surveillance is not conducted in all states there is no reliable national rate for FAS, however, among the four states in the FAS Surveillance Network (FASSNet) that use similar methodology for surveillance, Alaska reported the highest prevalence of FAS – 3.8 to 5 times higher than all other reported rates.

Severity

For birth years 1995-1999, more than one-third of children who were diagnosed with FAS were born preterm and with low or very low birth weight.

Children with FAS and other effects of maternal drinking during pregnancy do not catch up with their peers or outgrow their disabilities. Some problems that occur frequently are poor judgment (easily victimized), attention deficits (unfocused/distractible), arithmetic disability (difficulty handling money), memory impairment (difficulty learning from experience), difficulty abstracting (difficulty understanding consequences), disorientations in time and space (difficulty perceiving social cues), and impulsivity (poor frustration tolerance).¹ Many of these problems may not be identified at birth, and may not become obvious until the child reaches school age or later.

A University of Washington study showed that across the full age spectrum of 415 individuals with FAS/FAE, 94% had mental health problems, 45% had inappropriate sexual behavior, 43% had disrupted school experience, and 42% had trouble with the law.²

Urgency

- Compared to the baseline for birth years 1995-1997, the 1996-1998 prevalence of FAS in Alaska was similar with 1.6 per 1,000 live births.

Children with FAS are only about 10% of the entire group of children living with some affect of maternal drinking during pregnancy.

- The Alaska FAS Surveillance Project estimates that approximately 163 Alaskan children are born every year with some effect from maternal drinking during pregnancy (16.3 per 1,000 live births), including FAS.
- Extrapolation of Alaska's estimated prevalence provide an estimate of 6,500 people under the age of 45 living in Alaska who may have a disability as a result of maternal drinking during pregnancy. Of these, there are an estimated 2,000 women of childbearing age and 2,500 school-aged children; approximately 600 could have full FAS.

Disparities

Race-specific FAS prevalence estimates should be interpreted with caution. Increased awareness of maternal alcohol use and careful documentation by Alaska Native health organizations may result in more complete reporting of potential cases of FAS among Alaska Natives than other races.

- Infants born to Alaska Native women have higher rates of FAS than other races. For birth years 1995-1999, FAS prevalence among Alaska Natives was approximately 5 per 1,000 live births – more than 15 times that of whites.

Economic Loss

Based on a lifetime cost of \$1.5 million, the expected lifetime costs of 1999 births with FAS in Alaska were estimated to be \$21 million to \$42 million (cost estimates include medical costs, behavior management, and residential services, which include special education, home care, speech therapy, and institutional care).²

Interventions & Recommendations

Primary Prevention

Abstinence Education: The Office of FAS and the Office of the Governor have undertaken a variety of primary prevention projects to reduce maternal drinking during pregnancy. Among these are public education media campaigns warning about the dangers of drinking any alcohol during pregnancy – that no amount is known to be safe.

In a recent advisory on alcohol use during pregnancy, the Surgeon General recommended that health professionals regularly ask women of childbearing age about alcohol use and to inform them of the risks of drinking alcohol during pregnancy. It is further recommended that they advise them not to drink alcohol during pregnancy.³ In 2002, a survey of FAS Knowledge, Attitudes, Beliefs and Behaviors (KABB) found that 36% of obstetrician/gynecologists responded that it was OK for a pregnant woman to drink alcohol occasionally, more than double the percent of either Pediatricians or Family Physicians. Over 90% of physicians strongly agreed that FAS is preventable.

Ongoing Surveillance: FAS surveillance is the only reliable and scientifically defensible means of gathering annual, population-based information on the occurrence of FAS statewide. These data are necessary for tracking the effect of prevention efforts.

Secondary prevention

Education: Preliminary data from the KABB survey indicated that although nearly 90% of educators believed that a teacher can develop successful classroom interventions to help students who have FAS, nearly half felt they do not have the appropriate skills and knowledge to deal with students who have FAS and just over 75% do not feel they have the skills and knowledge to deal with families of those students who have FAS.

The Office of FAS has developed FASD curricula, which, along with other educational efforts, have been provided for many people throughout the State.

Intervention Effectiveness

The Office of FAS will be conducting a follow-up KABB survey to evaluate the effectiveness of these and other educational efforts.

The FAS Diagnostic and Prevention Network (DPN) at the University of Washington is currently evaluating the effectiveness of two interventions targeted to children with

the full spectrum of disorders associated with prenatal alcohol exposure, and their families.

Capacity

Propriety

Ongoing surveillance of FAS and other effects of maternal drinking during pregnancy falls within the overall mission of the Women's, Children's, and Family Health (WCFH) Section.

Economic Feasibility

The economic and social consequences of not continuing prevention, education, diagnosis and evaluation (including FAS Surveillance) are serious (see Economic Loss). In addition, an expansion of this work to strengthen intervention resources is indicated for children already living with effects of maternal drinking during pregnancy. Prevention, evaluation and intervention efforts combined could have an important impact on reducing both annual and lifetime costs.

Acceptability

In general, the FAS Surveillance Project and the Office of FAS have found legislators, families, professionals and communities to be welcoming and encouraging of continued and expanded efforts in this area.

Resources

Funding: Starting in 2003, the Office of FAS agreed to fund the FAS surveillance program (through SAMSHA funds) through June 2005. If the 2005 AK Legislature approves the proposed budget, the FASSP will be funded through the Office of FAS by the state general fund for FY 05-06. Efforts are underway to identify ongoing funding.

SAMSHA funding for the Office of FAS is ending in June of 2005. The Governor has asked the legislature to approve \$7.1 million for Alcohol and Substance Abuse Prevention, targeting \$1.1 million of that specifically for FAS/D prevention. This \$1.1 million will go to the Office of FAS and will allow continuation of some services for one year. A portion of that funding is likely to go toward evaluation and other wrap-up activities with some funding directed for one year to FAS Surveillance activities.

Legality

Effects of maternal drinking during pregnancy (ICD-9 code 760.71) is among the birth defects that require mandatory reporting to the Alaska Birth Defects Registry under the Alaska Administration Code (7 AAC 27.012).

References

- 1 Streissguth AP. The Behavioral Teratology of Alcohol: Performance, Behavioral and Intellectual Deficits in Prenatally Exposed Children. Alcohol and Brain Development. J. West, Ed. New York:Oxford University Press. 1986.
- 2 Streissguth AP, Barr HM, Kogan J, Bookstein FL. Understanding the Occurrence of Secondary Disabilities in clients with Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE), Final Report to the Centers for Disease Control and Prevention. Seattle: University of Washington, Fetal Alcohol & Drug Unit, Tech. Rep. No. 96-06, (1996).
- 3 Advisory Board on Alcoholism and Drug Abuse, Alaska Department of Health and Social Services. Economic Costs of Alcohol and Other Drug Abuse in Alaska, Phase Two. Juneau: McDowell Group. 2001.

⁴ U.S. Department of Health and Human Services. U.S. Surgeon General Releases Advisory on Alcohol Use in Pregnancy: A News Release of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. February 2005.

Data Sources

[†] Alaska Fetal Alcohol Syndrome Surveillance Project (FASSP), 1995-1997 Data: State of Alaska, DHSS, DPH.

[^] Fetal Alcohol Surveillance System Network (FASSNet), 1995-1997 Data in: Centers for Disease Control and Prevention. Fetal Alcohol Syndrome- Alaska, Arizona, Colorado, and New York, 1995-1997. MMWR: 51 (20):433-435. 2002.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

Notes

Prevalence estimates for FAS in Alaska are based on 3-year averages due to the small number of events experienced in Alaska.

The range used for the national prevalence of FAS is from four states (Alaska, Arizona, Colorado, and New York) participating in the FAS Surveillance Network (FASSNet) that used a comparable methodology for surveillance.

Fetal Alcohol Syndrome (FAS) is the only condition within Fetal Alcohol Spectrum Disorders (FASD) for which a clinical or surveillance case definition exists. A diagnosis of FAS includes central nervous system damage (developmental delays, mental retardation, learning disabilities, behavior and reasoning problems and other intellectual impairments), growth deficiency, characteristic facial features and information that the child's mother drank during pregnancy.



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Newborn Hearing Screening in Alaska

Hearing impairment is the most common disability among newborns – with a higher incidence than cerebral palsy, Down Syndrome, and severe mental retardation.¹ Prior to 1991, when Universal Newborn Hearing Screening (UNHS) was initiated, only children with high risk factors for congenital hearing loss were screened at birth. However, only half of newborns with hearing loss demonstrate such risk factors.¹ In the absence of newborn hearing screening, the average age of identification of a hearing impairment is 2-3 years of age.^{2,3} Unfortunately, the most important period of speech and language development is from birth to age three.⁴

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003†	Nation 2001*	Healthy People 2010*
Increase the proportion of newborns who are screened for hearing loss by age 1 month	81.1%	66%	90%
Increase the proportion of newborns who have audiologic evaluation by age 3 months	---	56%	70%
Increase the proportion of newborns who are enrolled in appropriate intervention services by age 6 months	67%*	57%	85%

---This data is not available.

+Note that this is an underestimate because it includes only those infants that were identified with PCHL and not those with partial hearing loss or mild impairments. Preliminary data for 2004 suggest that there has been improvement in the proportion of referrals by 6 months of age.

- Although under the target, Alaska is making progress toward achieving the Healthy People 2010 objectives of increasing screenings, evaluations, and interventions.
- In 2003, 4 in 5 newborns born in Alaska received newborn hearing screening prior to hospital discharge.
- Of the infants screened; 12 were identified with Permanent Childhood Hearing Loss (PCHL) and 8 of those went on to receive early intervention services.[†]
- Alaska is one of 12 states that do not have mandatory newborn hearing screening.

Severity

According to national statistics, on average, 1 in 333 infants are born with some type of congenital hearing loss.^{5,6} Delay in diagnosis can impair a child's language, speech, psycho-social, and cognitive development.^{7,8,9}

Urgency

- Although newborn hearing screening has not been consistently done in every community, the number of newborns screened continues to increase significantly on a yearly basis. From 1997-2003, the percentage of newborns screened before hospital discharge increased nearly five-fold.
- Although screening is increasing, nearly 1 in 5 newborns born were Alaska were not screened at hospital discharge.[†]

Disparities

The access disparities have been greatly reduced because universal newborn hearing screening programs have been voluntarily adopted in all communities in Alaska where birthing facilities exist. Race and ethnicity data is not available at this time for analysis.

Economic Loss

According to recent studies, the estimated lifetime costs are expected to total \$2.1 billion for persons born in 2000 with a hearing loss; and an average lifetime cost of \$417,000 per individual.¹⁰ When children are not identified and served early, special education for a child with hearing loss may cost an additional \$420,000.¹¹

The cost of identifying a newborn with hearing loss is less than one-tenth the cost of identifying newborns with metabolic disorders such as Phenylketonuria (PKU) and hypothyroidism, for which screenings are required in every state.¹²

Interventions & Recommendations

UNHS began in some states in 1991. In 1998 and 1999, three Alaskan hospitals implemented a newborn hearing screening program on their own initiative. In 2000, Alaska received federal funding to implement the Early Hearing Detection & Intervention Program with the Alaska Department of Health & Social Services. The American Academy of Pediatrics, the National Institutes of Health, the American Academy of Audiology, the Joint Committee

on Infant Hearing, and the National Association of the Deaf recommend universal newborn hearing screening.^{13,14,15} The Centers for Disease Control and Prevention has identified seven developmental goals for hearing screening in the United States.

Intervention Effectiveness

Through early identification and intervention, children identified with hearing loss at birth or shortly thereafter can learn and progress at a rate comparable to those with normal hearing.¹⁴

To date, all 23 Alaskan communities have implemented universal newborn hearing screening programs. The majority of screenings are performed in hospitals by nurses prior to discharge. However, in some smaller communities, public health nurses perform the screening during home visits after hospital discharge or in their well child clinics. In an effort to screen newborns born in free standing birthing centers or at home, hearing screening equipment was placed in communities with public health nurses where a significant number of births are occurring out of hospital.

Capacity

Propriety

Increasing the percentage of Alaskan newborns that are screened for hearing loss in order to identify infants with hearing impairments early falls within the overall mission of the Women's, Children's, and Family Health Section. National initiatives have been set forth to address this issue (HP2010) and the Maternal and Child Health Bureau require that an indicator for newborn hearing screening (NPM#12) be monitored on a yearly basis.

Economic Feasibility

Delays in diagnosis can lead to increased intervention throughout life, resulting in increased economic costs to the State and society as a whole.¹⁶

For most birthing hospitals, the cost for newborn hearing screening per child is between \$20-\$60 and continues to decrease. Many birthing facilities in Alaska implementing newborn hearing screening voluntarily include it in their newborn package cost.

Acceptability

Overall, parents are supportive of hearing screening in the newborn period once they understand its importance. However, education is still needed regarding newborn hearing screening and its importance among healthcare providers and the general public.

Resources

State of Alaska's, Early Hearing Detection & Intervention (EHDI) Program, Division of Public Health, Department of Health and Social Services.

Legality

Universal Newborn Hearing Screening is not mandatory in Alaska. Nationwide, 38 states have enacted legislation requiring hospitals to implement newborn hearing screening programs. In Alaska, newborn hearing screening was introduced during the 2001, 2002, 2003, 2004, and 2005 legislative sessions.

References

- 1 National Center for Hearing Assessment & Management. <http://www.infanthearing.org/presentations/cdc/prevalence.html>
- 2 Harrison M., Roush J. "Age of suspicion, identification and intervention for infants and young children with hearing loss: a national study." *Ear and Hearing*. 1996; 17:55-62.
- 3 Mauk GW, White KR, Mortensen LB, Behrens TR. The effectiveness of screening programs based on high-risk characteristics in early identification of hearing impairment. *Behavioral Audiology* 1991;12:312--9.
- 4 Ruben RJ. A time frame of critical/sensitive periods of language development. *Acta Otolaryngol* 1997;117:202--5.
- 5 White, K. R. (October, 1997). The scientific basis for newborn hearing screening: Issues and evidence. Invited keynote address to the Early Hearing Detection and Intervention (EHDI) Workshop sponsored by the Centers for Disease Control and Prevention, Atlanta, Georgia.
- 6 Finitzo T, Albright K, O'Neal J. The newborn with hearing loss: detection in the nursery. *Pediatrics* 1998;102:1452--9.
- 7 Kusche CA, Greenberg MT. Evaluative understanding and role-taking ability: a comparison of deaf and hearing children. *Child Dev* 1983;54:141--7.
- 8 Culbertson JL, Gilbert LE. Children with unilateral sensorineural hearing loss: cognitive, academic, and social development. *Ear Hear* 1986;7: 38--42.
- 9 Grosse S. "Cost comparison of screening newborns for hearing impairment and biochemical disorders." Center for Disease Control and Prevention. Paper presented at the Newborn Screening and Genetics Conference, May 2001.
- 10 Honeycutt A, Dunlap L, Chen H, et al. Economic Costs Associated with Mental Retardation, Cerebral Palsy, Hearing Loss, and Vision Impairment - United States, 2003. *MMWR*: 53(03):57-59 January 30, 2004
- 11 White, K. R., & Maxon, A. B. (1995). Universal screening for infant hearing impairment: Simple, beneficial, and presently justified. *International Journal of Pediatric Otorhinolaryngology*, 32, 201-211
- 12 Johnson, M. J., Maxon, A. B., White, K. R., & Vohr, B. R. (1993). Operating a hospital-based universal newborn hearing screening program using transient evoked otoacoustic emissions. *Seminars in Hearing*, 14(1), 46-56.
- 13 Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.
- 14 National Institutes of Health (NIH). (1993). NIH Consensus Statement. Early identification of hearing impairment in infants and young children, 11(1), 1-24.
- 15 American Academy of Pediatrics Task Force on Newborn and Infant Hearing. (1999). Newborn and Infant Hearing Loss: Detection and intervention. *Pediatrics*, 103(2), 527-530.
- 16 Harrison M., Roush J. "Age of suspicion, identification and intervention for infants and young children with hearing loss: a national study." *Ear and Hearing*. 1996; 17:55-62.

Data Sources

† Alaska Newborn Hearing Screening Program, 2003 Data: State of Alaska, DHSS, DHCS. <http://www.hss.state.ak.us/dhcs/newborn/default.htm>

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Newborn Metabolic Screening in Alaska

Newborn metabolic screening was first implemented to find infants born with Phenylketonuria (PKU). Over time, screening panels have expanded to include other disorders. Since 1967, Alaska has attempted to screen all infants born in the State for heritable diseases that can lead to mental retardation or death if left untreated. The Alaska Newborn Metabolic Screening Program tracks infants for screening and surveillance to ensure that infants needing further diagnostic testing are evaluated, treated, and referred to the Alaska Genetics Program.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska [†]	Healthy People 2010 Goals [*]
Ensure that all newborns are screened at birth for conditions mandated by their State-sponsored newborn screening programs	>99%	Developmental
Ensure that follow-up diagnostic testing for screening positives is performed within an appropriate time period	100%	Developmental
Ensure that infants with diagnosed disorders are enrolled in appropriate service interventions within an appropriate time period	100%	Developmental

- In 2004, 10,221 infants were screened with 12 confirmed cases of disease or a disorder and another 167 identified with an abnormal homozygous hemoglobinopathy, carrier trait, or alpha thalassemia.
- Alaska currently obtains metabolic screens on nearly all infants born in the state. Of these, nearly 90% receive a second metabolic screen.
- Maple Syrup Urine Disease (MSUD), an inherited disease, that if untreated, results in increased mental retardation, physical disability, and death – is more than 8 times higher in Alaska than the estimated national incidence. (Table 1)
- Congenital adrenal hyperplasia (CAH), a genetic defect of the adrenal glands that prohibits the production of corticosteroids, that if untreated, can cause heart failure and death within a few days from birth. CAH in Alaska is 3 times the estimated national incidence. (Table 1)

Table 1

Incidence Rates of Metabolic Disorders/Diseases		
Disorder/Disease	Alaska 2001-04 [†]	Nation [*]
	per 10,000 births	
Congenital Hypothyroidism (CH)	5.5	3.3
Biotinidase	0.25	0.17
Maple Syrup Urine Disease (MSUD)	0.5	0.06
Phenylketonuria (PKU)	0.5	1.0
Medium Chain Acyl-CoA Dehydrogenase Deficiency (MCAD)	1.5	1.0
Congenital Adrenal Hyperplasia (CAH)	2.5	0.83
CAH among Yupik Eskimos	33.3	----

Severity

Metabolic disorders are rare but collectively have an incidence of approximately 1 in every 1,000 to 3,000 births, nationally.¹ Early treatment and intervention has prevented mental retardation or early death for more than 20 infants born in Alaska in the previous two years.

Urgency

- Many of the disorders in the metabolic panel can be detected on a second screen with a normal first screen (termed late onset disorders). Although nearly 90% of Alaskan newborns received a second screening in 2004 – an increase of 9.4% from the previous year (81.95%), all newborns should receive a second screening.
- In Alaska, 6% of all infants with PKU and 10% of those with hypothyroidism are found only on the second screen.²

Disparities

- Alaska Native infants have a higher incidence of CAH. In 2001-2004, the average incidence of CAH in Alaska was more than 13 times higher among Yupik Eskimos compared to Alaska overall. (Table 1)
- While no statistics have been compiled for carnitine disorders to date, all but one of the presumptive and confirmed positives for 2004 were among Alaska Native infants.

Economic Loss

Studies have compared the cost of newborn metabolic screening to the high lifetime costs associated with caring for a developmentally/physically disabled child.^{3,4} Studies suggest that newborn metabolic screening for PKU, congenital hypothyroidism, and the rarer disorders result in a large cost savings to society in general. Cost effectiveness for some of the newer conditions included in the metabolic panel has not been evaluated.

Interventions & Recommendations

The March of Dimes has advocated for expanded testing through tandem mass spectrometry⁵ as have the Association of Public Health Laboratories who prepared a statement for the Secretary of Health and Human Services for the Secretary's Advisory Committee on Heritable Disorders and Genetic Diseases in Newborns and Children.⁶

Intervention Effectiveness

Data from the Alaska Newborn Metabolic Screening Program conclusively shows that early identification and treatment of metabolic disorders is effective (see 'Severity').

Capacity

Propriety

Newborn metabolic screening to prevent mental retardation is a population based program covering all infants born in the State of Alaska.

Economic Feasibility

There are huge economic consequences that would fall upon the State if infants were not identified at birth with metabolic conditions that can easily be treated. The cost of a metabolic screen for an Alaskan infant is \$55

Acceptability

There is universal acceptance of newborn screening.⁷ While most parents are aware of the "heel stick test" their babies receive, many do not fully understand how many how which conditions are screened. Efforts to get educational materials about metabolic screening to parents in the prenatal period are ongoing.

Resources

Title V MCH Block Grant

Legality

Metabolic screening is mandatory in Alaska covered under "Article 6. Phenylketonuria" in "Sec.18.15.200 Screening infants for Phenylketonuria" and in additional regulations in "Article 10. Screening of Newborn Children for Metabolic Disorders (7AAC 27.510-7AAC27.590).

References

- ¹ Bryant KG, Horns KM, et. al. A Primer on Newborn Screening. *Adv Neonatal Care*: 4(5):306-317. 2004.
- ² Northwest Regional Newborn Screening Program Practitioner's Manual, 6th Edition. 2003.
- ³ Dhondt JL, Farriaux JP, et. al. Economic Evaluation of Cost-Benefit Ratio of Neonatal Screening Procedures for Phenylketonuria and Hypothyroidism. *J Inherit Metab Dis*: 14:633-639. 1991.
- ⁴ Brosnan CA, Brosnan P, Therrell, BL, et. al. A Comparative Cost Analysis of Newborn Screening for Classic Congenital Adrenal Hyperplasia in Texas. *Pub Health Rep*: 113:170-178. 1998.
- ⁵ Newborn screening Report. March of Dimes. Available at: www.modimes.org
- ⁶ Genetics. Maternal Child Health Bureau, DHHS, HRSA. Available at www.mchb.hrsa.gov

Data Sources

[†] Alaska Newborn Metabolic Screening Program, 2004 Data: State of Alaska, DHSS, DHCS.
www.hss.state.ak.us/dhcs/screening/metabolic

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

[‡] Alaska Newborn Metabolic Screening Program, 2001-2004 Data: State of Alaska, DHSS, DHCS.
www.hss.state.ak.us/dhcs/screening/metabolic

[^] National Incidences of Newborn Metabolic Disorders in: Northwest Regional Newborn Screening Program Practitioner's Manual, 6th Edition. 2003.



Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 16

Breastfeeding in Alaska

Breast milk is widely acknowledged to be the most complete form of nutrition for infants and the resulting benefits for infants' health, growth, immunity, and development are well documented.¹ It has nutritional properties superior to formula and transmits protective antibodies to the newborn. Contraindications to breastfeeding are uncommon and include maternal HIV infection and the use of selected medications.

National survey data indicate that in-hospital breastfeeding rates for 2002 were the highest recorded since national breastfeeding data have been collected.² According to the Mothers Survey conducted by the Ross Products Division of Abbott Laboratories, the overall in-hospital breastfeeding rate for 2002 was 70.1% – with Oregon (89.1%), Alaska (87.4%), and Washington (87.1%) showing the highest rates in the nation.³ Data from the Pregnancy Risk Assessment Monitoring System (PRAMS) and the 2003 National Immunization Survey showed similar breastfeeding rates for Alaska.

Seriousness

Health People 2010 Targets and National Data

Indicator	Alaska	Nation [^]	Healthy People 2010 Goal [†]
Proportion of women initiating breastfeeding	90.5% (2002) [†]	70.9% (2003)	75%
Proportion of women breastfeeding at 4 weeks	80.3% (2002) [†]	62.3% (2003)	---
Proportion of women breastfeeding at 6 months	48.3% (2003) [^]	36.2% (2003)	50%
Proportion of women breastfeeding at 12 months	28.9% (2003) [^]	17.2% (2003)	25%

Indicator	Alaska 2003 [^]	National 2003 [^]
Proportion of women breastfeeding exclusively at 3 months	53.2%	41.1%
Proportion of women breastfeeding exclusively at 6 months	20.0%	14.2%

- Alaska is one of 14 states to achieve the Healthy People 2010 target of increasing breastfeeding initiation to at least 75%.⁴ Although just falling short of the HP2010 target for breastfeeding 6 months, Alaska achieved the HP2010 target of increasing breastfeeding at 12 months to at least 25%.

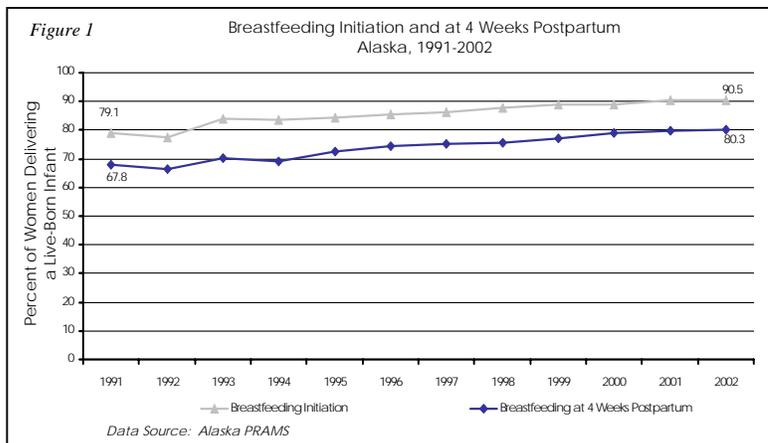
- The prevalence of overall breastfeeding initiation in Alaska is significantly higher than the U.S. as a whole.
- Overall, breastfeeding continuation rates were significantly higher among Alaskan women compared to women in the U.S. as a whole. Breastfeeding for at least 4 weeks, 6 months, and 12 months was significantly higher for Alaska than the Nation.
- Exclusive breastfeeding rates in Alaska were also significantly higher for Alaska compared to the U.S. as a whole.

Severity

Studies have found that non-breastfed infants have increased rates of ear and respiratory infection compared with breastfed infants. A recent large randomized trial of breastfeeding promotion found that breastfeeding reduces the incidence of gastroenteritis and atopic eczema, which is consistent with the findings of earlier observational studies. For the mother, breastfeeding causes more rapid return of uterine tone, reduced postpartum bleeding, earlier return to pre-pregnancy weight and has been associated with lower risk for ovarian cancer and pre-menopausal breast cancer.

Urgency

- From 1991 to 2002, the trends for breastfeeding initiation and continuation through the first four weeks after delivery significantly increased – 14% and 20% increases, respectively, for Alaskan mothers overall. Among Alaska Natives the increases were more than 17% and 20%, respectively, during this time period. (Figure 1)
- Regardless of race, ethnicity, maternal age, education, region, or prenatal Medicaid status, breastfeeding initiation rates for 2001 were significantly higher than the HP2010 goal.[‡]



- Breastfeeding rates, both initiation and continuation for at least 4 weeks postpartum, were lower among WIC and Medicaid clients compared to non-WIC and non-Medicaid clients. (Figure 3)
- Alaskan women ages 35 years or over had the highest prevalence of breastfeeding through the first month and were significantly more likely to breastfeed for at least 4 weeks postpartum than women less than 25 years of age.[‡]

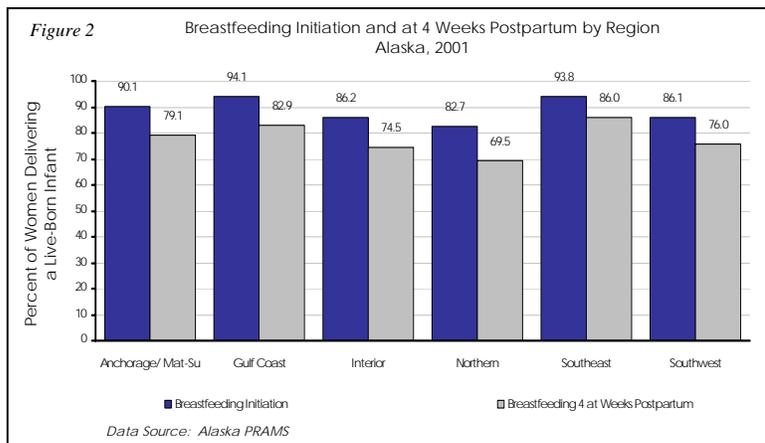
Economic Loss

Economic loss was not evaluated for this issue.

Disparities

According to a national survey, as maternal age and education level increase, mothers are significantly more likely to breastfeed their newborn.⁴ Analysis of Alaska PRAMS data indicated that education level, region, and Medicaid status were associated with breastfeeding initiation and breastfeeding continuation for at least 4 weeks after delivery. In addition, race, maternal age, and region were associated with breastfeeding continuance. These findings are consistent with data from other states participating in PRAMS.⁵

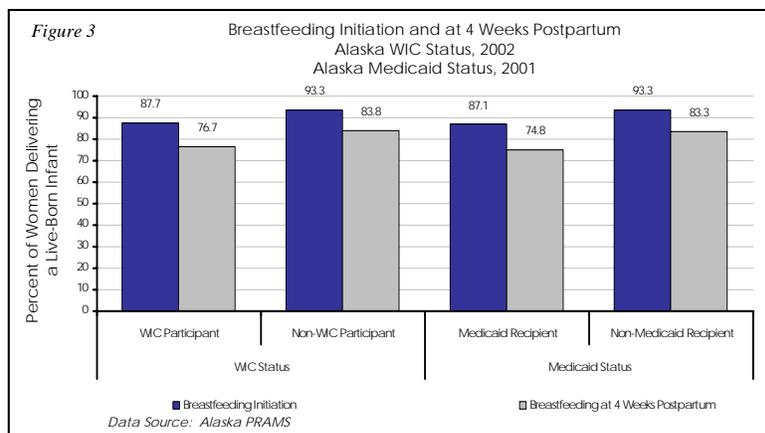
- White mothers were significantly more likely to initiate and continue breastfeeding than Alaska Native mothers, and they were more likely to continue breastfeeding than Asian/Pacific Islander mothers as well.[‡]
- Alaskan women with at least some college education were significantly more likely to initiate breastfeeding or continue breastfeeding for at least four weeks after delivery than women with a high school education or less.[‡]
- During 1999-2001, the Gulf Coast and Southeast regions had the highest breastfeeding initiation and breastfeeding continuation rates.[‡] (Figure 2)



Interventions & Recommendations

The American Academy of Pediatrics (AAP) recommends breastfeeding for reduced risk of infection in infants and for the prevention of childhood obesity.⁶ The AAP recommends exclusive breastfeeding for the first six months of life with continued breastfeeding, supplemented with appropriate solid foods, at least until the infant's first birthday.

The U.S. Preventive Services Task Force (USPSTF) recommends structured breastfeeding education and behavioral counseling programs to promote breastfeeding.⁷



Effectiveness of Interventions

The USPSTF reported that counseling alone, either by primary care providers or peer-counselors, is not as effective as structured programs in promoting breastfeeding. The most effective interventions use brief, directive health education combined with behaviorally-oriented skills training and problem-solving counseling. There is evidence that providing ongoing support for patients, through in-person visits or telephone contacts with providers or counselors, increases the number of women who continue to breastfeed for up to 6 months.⁷

Capacity

Propriety

Supporting initiatives to increase breastfeeding among Alaskan women falls within the overall mission of the Women's, Children's, and Family Health Section. National initiatives have been set forth to address breastfeeding objectives (HP2010) and the Maternal and Child Health Bureau requires that an indicator related to increasing breastfeeding initiation (NPM#11) is monitored and assessed on a yearly basis.

Economic Feasibility

Economic feasibility was not evaluated for this issue.

Acceptability

Increasing trends and high rates of breastfeeding in Alaska suggest that breastfeeding promotion is acceptable in the community.

Resources

Data: Alaska PRAMS

Programs: WIC: Low income pregnant, postpartum and lactating women are eligible for WIC. The following programs promote breastfeeding participation and are supported by WIC:

- Peer Counseling
- Using Loving Support to Implement Best Practices in Peer Counseling will develop a peer counseling program and management model, and develop curricula for managers of peer counseling programs and for those who will train peer counselors in WIC.
- Using Loving Support to Build a Breastfeeding Friendly Community to use social marketing methods to raise public awareness, acceptance, and support for breastfeeding

Legality

In response to the case of a New York mother being arrested for indecent exposure and local reports of Alaskan mothers being hassled when breastfeeding in public places, the State of Alaska Legislature signed Alaska Senate Bill 297 into law on June 8, 1998. This law states, 'A woman may breastfeed her child in a public place.'

References

- ¹ Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.
- ² US Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Women's Health USA 2003. Rockville, MD: U.S. Department of Health and Human Services. 2003.
- ³ Mothers Survey 2002. Breastfeeding Trends - 2002. Ross Products Division, Abbott Laboratories. Available at http://www.ross.com/images/library/bf_trends_2002.pdf
- ⁴ National Immunization Survey 2003. Centers for Disease Control and Prevention, Department of Health and Human Services
- ⁵ Beck LF, Morrow B, Lipscomb LE, et al. Prevalence of Selected Maternal Behaviors and Experiences, Pregnancy Risk Assessment Monitoring System (PRAMS), 1999. CDC Surveillance Summaries. MMWR 51(SS02):1-26. Apr 2002.
- ⁶ American Academy of Pediatrics. Prevention of Overweight and Obesity. Pediatrics. 112 (2):424-430. Aug 2003.
- ⁷ U.S. Preventive Services Task Force (USPSTF). Behavioral Interventions to Promote Breastfeeding: Recommendations and Rationale. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ). Jul 2003.

Data Sources

[†] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

[^] National Immunization Survey 2003. Centers for Disease Control and Prevention, Department of Health and Human Services.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

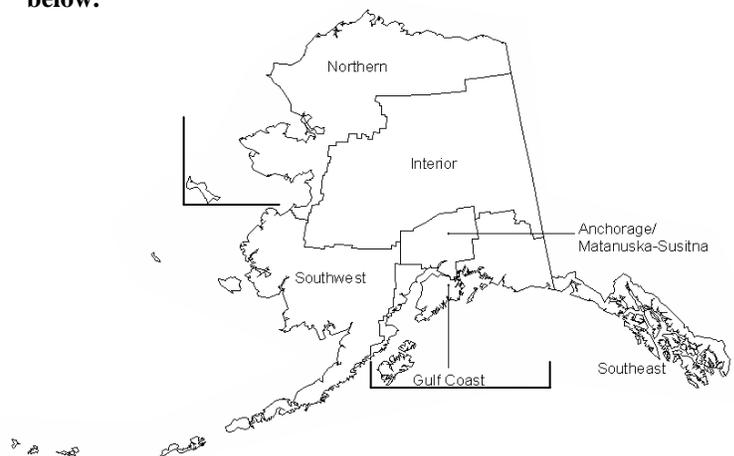
[‡] Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

For Alaska PRAMS data initiating breastfeeding is defined as having ever breastfed their newborn.

Exclusive breastfeeding is defined as only breast milk and water - no solids or other liquids.

Regional groupings are based on the Alaska Department of Labor Regions as shown in the map below.





Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 13

Infant and Fetal Mortality in Alaska

Infant mortality is the leading world-wide indicator of maternal and infant health status. It is also valuable in assessing the quality and accessibility of primary health care available to pregnant women and infants, and the impact of poor socio-economic conditions on maternal and infant health.

Nationally, the leading causes of infant death are birth defects, prematurity/low birth weight, sudden infant death syndrome (SIDS), maternal complications of pregnancy, and respiratory distress syndrome. During the post-neonatal period (28 through 364 days), the leading causes are birth defects, SIDS, injuries, pneumonia/influenza, and homicide.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska (2001-03) [†]	Healthy People 2010 [*]
Fetal mortality rate per 1,000 live births plus fetal deaths	5.0	4.1
Infant Mortality rate per 1,000 live births	6.9	4.5
Neonatal mortality rate per 1,000 live births	2.9	2.9
Post-neonatal mortality rate per 1,000 live births	4.0	1.5
Infant mortality due to SIDS per 1,000 live births	1.07	0.25

- Fetal mortality in Alaska was nearly 22% higher than the Healthy People 2010 (HP2010) target.
- Although experiencing significant declines in infant mortality over the last decade, Alaska's rate was 53% higher than the HP2010 target.
- Although Alaska's post-neonatal mortality rate was 2.7 times higher than the HP2010 target, the neonatal mortality rate achieved the HP2010 goal.
- Alaska's SIDS rate for 2001-2003 was 4.3 times higher than the HP2010 target.

National data for 2003 is not yet available. When comparing data for Alaska and the Nation, the 2000-2002 time period was used for both.

Indicator	Alaska (2000-02) [†]	National (2000-02) [*]
Fetal mortality rate per 1,000 live births plus fetal deaths	4.5	6.4 [‡]
Infant mortality rate per 1,000 live births	6.9	6.9
Neonatal mortality rate per 1,000 live births	2.9	4.6
Post-neonatal mortality rate per 1,000 live births	3.8	2.3
Infant mortality due to SIDS per 1,000 live births	0.87	.58

- Alaska's fetal mortality rate was nearly 30% lower than the national rate for 2002.
- Alaska's infant mortality rate was identical to the overall rate for the Nation during this time period, however, post-neonatal mortality was 1.6 times that of the national rate.
- Alaska's neonatal mortality rate is consistently lower than the national average. During this time period, the neonatal mortality rate in Alaska was 27% lower than the Nation.
- The rate of infant deaths due to SIDS was 1.5 times higher in Alaska compared to the Nation as a whole.

[‡]Note that the fetal mortality rate for the Nation is for 2002 only.

Severity

During 2001-2003, 1 in 345 Alaskan infants died within their first month and 1 in 145 died before their first birthday. During this time period, 69 infants on average died in Alaska annually.

During 2001-2003, nearly 1 in 6 infant deaths were due to SIDS – accounting for 15.5% of all infant deaths during that time period.

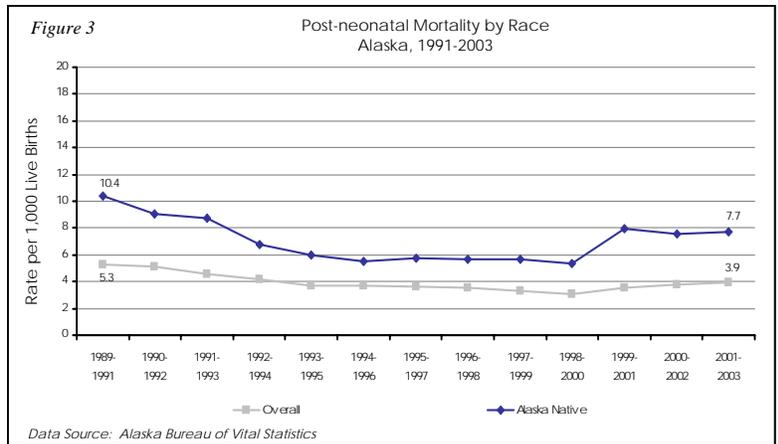
Urgency

Fetal Mortality

- Over the last decade, the overall fetal mortality rate for Alaska has remained fairly constant; however, it has consistently been lower than the national rate.

Infant Mortality

- Overall infant mortality decreased 20% over the last decade in Alaska. (Figure 1)
- Neonatal mortality in Alaska declined by nearly 30% over the last decade. (Figure 2)
- Although post-neonatal mortality in Alaska has declined significantly over the last decade, it has steadily increased since it's low in 1998-2000 – an increase of 30% from 1998-2000 to 2001-2003. (Figure 3)



- Infant mortality due to SIDS has significantly declined in Alaska. Over the last decade, SIDS rates among both, Alaska Natives and non-Natives, have declined nearly 50%. (Figure 4)

Disparities

Fetal Mortality

- While the overall fetal mortality rate for Alaska has remained nearly unchanged over the last decade, there has been a significant increase for blacks (68%).
- During 1993-2003, the average rate of fetal mortality was similar among infants born to white, Alaska Native, and Asian/Pacific Islander women. The average rate among black women was more than 2 times that of all other race groups. (Figure 5)

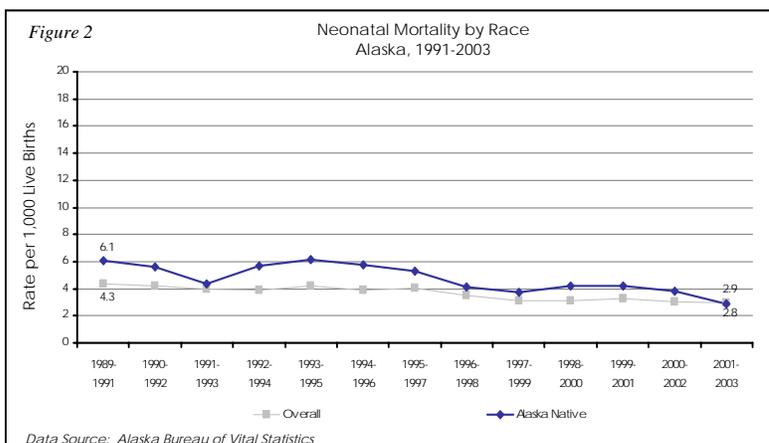
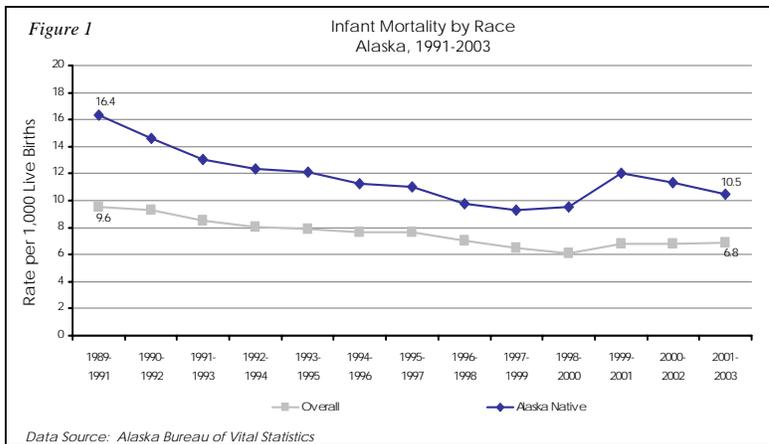
Infant Mortality

Race and maternal age are significantly associated with infant mortality.

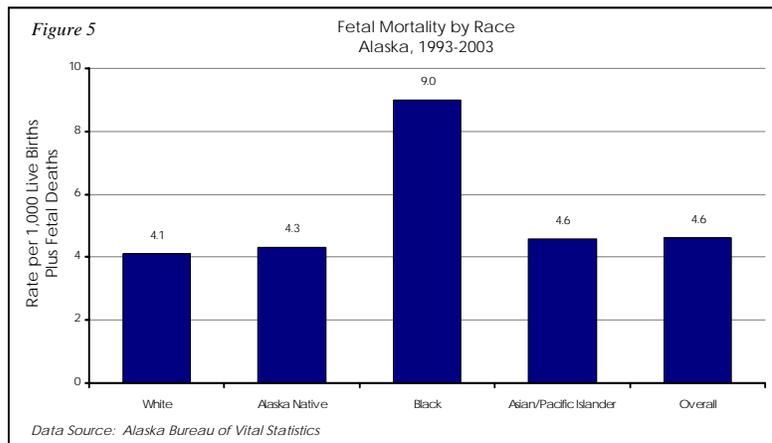
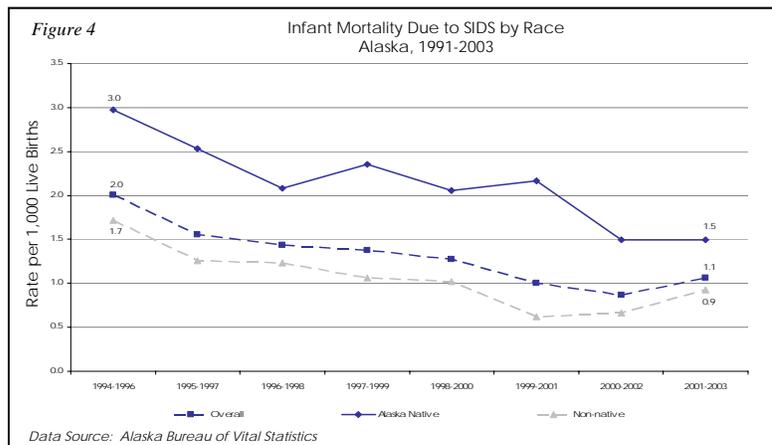
- Infants born to mothers less than 20 years old are significantly more likely to die within the first year compared to infants born to older mothers. During 2000-2002, the infant mortality rate among infants born to women less than 20 years of age was 9.2 per 1,000 live births – 1.3 to 1.4 times greater than women age 20 or older.

- Infant mortality among Alaska Natives is nearly twice that of whites. Although this disparity has remained unchanged over the last decade, there has been a significant decline in infant mortality among Alaska Natives. (Figure 1)

- Although overall infant mortality has declined overall for Alaska Natives, current post-neonatal mortality rates among this population have increased to resemble rates from the early 1990s. The Alaska Native post-neonatal mortality rate was 8.8 at the beginning of the 1990s then steadily decreased to a low of 5.4 during 1998-2000, before rising to the current rate of 7.8 per 1,000 live births. (Figure 3)



- During the 1990s, infants born to Alaska Native mothers were 2.5 times more likely to die during the post-neonatal period than those born to white mothers – current trends in Alaska Native post-neonatal deaths have increased this disparity. For the time period 1999-2001 to 2000-2003, post-neonatal mortality among Alaska Natives was 3.3 times that of whites. (Figure 3)
- Although significantly declining for both Alaska Natives and non-Natives, deaths due to SIDS are consistently higher among Alaska Natives. During 2001-2003, the rate of SIDS was 1.6 times higher among Alaska Natives than non-Natives. (Figure 4)



Economic Loss

Economic loss associated with fetal and infant mortality was not evaluated. However, there are costs associated with infants that are born with poor birth outcomes that are at increased risk of death in the first year, such as low birth weight, preterm, congenital anomalies, and metabolic disorders. Economic loss is addressed separately for these issues in their respective Women’s, Children’s, and Family Health Fact Sheets.

Interventions & Recommendations

Prenatal care: Early and adequate prenatal care may improve birth outcomes by identifying women with increased risks of poor birth outcomes early in pregnancy. Complications during the fetal and neonatal periods may benefit most from early and continuous prenatal care – fetal deaths are often associated with maternal complications of pregnancy and birth defects.

Smoking Cessation: Infants born to women who smoke prenatally have increased risk of neonatal mortality, SIDS, preterm delivery, and low birth weight. Furthermore, prenatal smoking and drinking have been shown to greatly increase rates of fetal mortality.¹ Smoking cessation is recommended for improved infant health and birth outcomes. Refer to the fact sheets ‘Low Birth Weight and Preterm Births in Alaska’ and ‘Prenatal Tobacco Use in Alaska’ in this series for more information on this intervention.

Infant sleep position: The American Academy of Pediatrics (AAP) recommends that infants be placed to sleep on their backs to reduce the risk of SIDS.² Refer to the fact sheet ‘Infant Sleep Position and Co-Sleeping in Alaska’ in this series for more detail on the AAP recommendations.

Intervention Effectiveness

Prenatal care: Medical advances and improved access to prenatal care have contributed to declines in infant mortality during the neonatal period (from birth up to 29 days), particularly in preterm infants. Since many women who lack adequate prenatal care may also have risk factors related to poverty and young maternal age – factors which cannot be fully addressed through more adequate prenatal care – there is concern that increased use of prenatal care alone may not be sufficient to significantly improve birth outcomes.³

Smoking cessation: Eliminating maternal smoking may lead to a 10% reduction in all infant deaths and a 12% reduction in deaths from perinatal conditions.¹

Infant sleep position: Placing infants to sleep on their backs is a modifiable behavior that has been shown to reduce the risk of Sudden Infant Death Syndrome (SIDS). Concurrent with the Alaska “Back to Sleep” campaign, rates of SIDS or asphyxia of unknown etiology declined 45% between 1992-1996 and 1997.⁴

Capacity

Propriety

Supporting initiatives to reduce fetal and infant mortality falls within the overall mission of the Women's, Children's, and Family Health Section. National initiatives have been set forth to address fetal and infant mortality objectives (HP2010) and the Maternal and Child Health Bureau requires that indicators related to reducing infant mortality (NOM#1-5; HIS #8A-B) are monitored and assessed on a yearly basis.

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Promoting the reduction of mortality among Alaskan infants is acceptable.

Resources

Data: Alaska Bureau of Vital Statistics; Alaska Maternal-Infant Mortality Review (MIMR)

“Back to Sleep” Campaign
MOD Prematurity Campaign

Legality

Not an issue.

References

- ¹ U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.
- ² American Academy of Pediatrics. Changing Concepts of Sudden Infant Death Syndrome: Implications for Infant Sleeping Environment and Sleep Position. *Pediatrics*. 105(3):650-56. Mar 2000.
- ³ Misra, D.P. and Guyer, B. Benefits and Limitations of Prenatal Care: From Counting Visits to Measuring content. *JAMA* 279:20. 1998
- ⁴ Gessner BG. Findings of the Alaska Maternal-Infant Mortality Review, 1999. Family Health Dataline. State of Alaska, Department of Health and Social Services, Section of Maternal, Child and Family Health. 6:2. 2000.

Data Sources

† Alaska Bureau of Vital Statistics: State of Alaska, DHSS, DPH. Jan 2005.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

^ Kochanek KD, Smith BL. Deaths: Preliminary Data for 2002. National Vital Statistics Reports; 52(13). Hyattsville, Maryland: National Center for Health Statistics. 2004.

Notes

Due to the small numbers of events, fetal and infant mortality data are expressed as three-year moving averages for Alaska. For comparability, national rates are presented for the same time periods.

National mortality data for 2002 is preliminary.

National SIDS rates are from National Center for Health Statistics Vital Statistics System, 2000-2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS). February 2005.



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Vol. 1 No. 17

Infant Sleep Position and Co-Sleeping in Alaska

Placing infants to sleep on their backs is a modifiable behavior that has been shown to reduce the risk of Sudden Infant Death Syndrome (SIDS) – one of the leading causes of death to infants.

Co-sleeping refers to the practice of infants sharing the same bed with parents or other children. Some studies suggest that the risk for SIDS increases when an infant co-sleeps, especially when the other party is an impaired individual. Population-based data on the co-sleeping habits of parents or other persons with infants are lacking nationwide. In Alaska, the Pregnancy Risk Assessment Monitoring System (PRAMS) has collected co-sleeping data since 1991.

Seriousness

Healthy People 2010 Targets and National Data

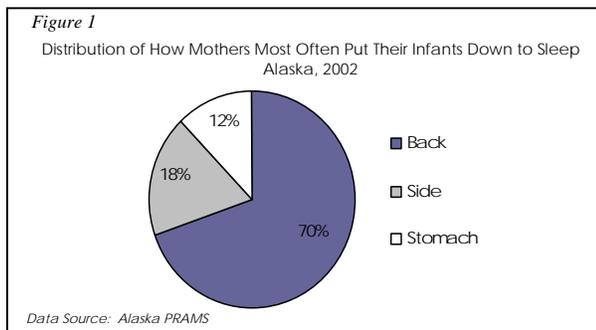
Indicator	Alaska 2002 [†]	Nation 2002 [^]	Healthy People 2010 Goal*
Proportion of infants put to sleep on their backs	69.3%	71.1%	70%
Proportion of infants that co-sleep	39.5%	----	----

---There is no comparable data for co-sleeping nationally and co-sleeping has not been identified as a Healthy People objective.

- Nearly 7 in 10 Alaskan mothers reported that they regularly put their infant to sleep on their back – Alaska has made significant progress in achieving the Healthy People 2010 target.
- Compared to the Nation, the proportion of caregivers placing infants on their backs to sleep is not significantly different in Alaska.
- More than 1 in 3 Alaskan mothers reported that they always or almost always co-sleep with their infant.

Severity

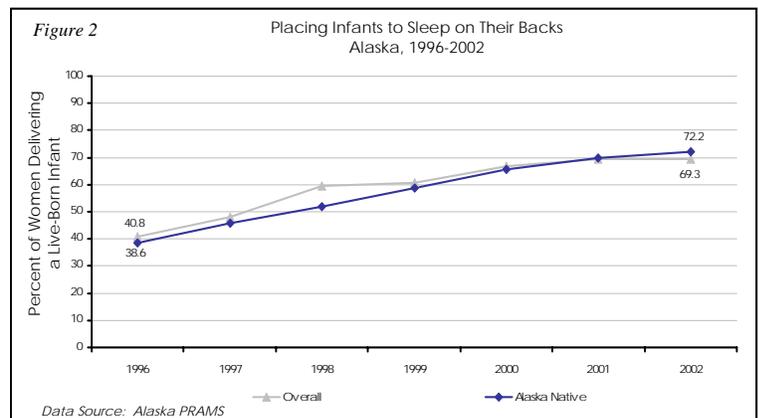
Placing infants in a prone position (i.e. on their stomach) to sleep and co-sleeping with an impaired individual increase the risk of SIDS. Research suggests that bed-sharing with other children also increases the risk of SIDS.²



Urgency

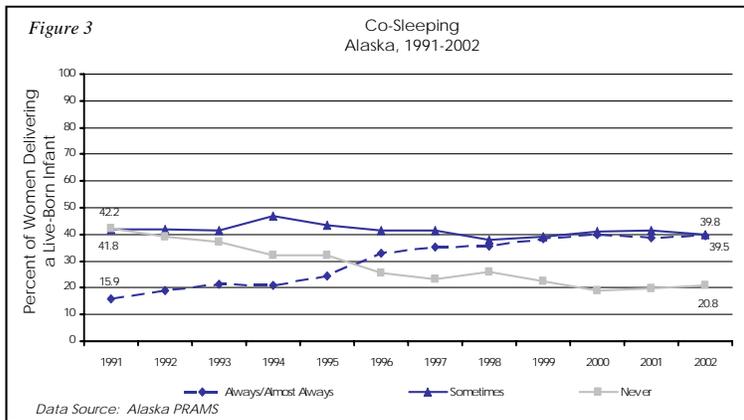
Infant Sleep Position

- Although Alaskan mothers were more likely to put their infants to sleep on their backs than any other position (Figure 1), approximately 1 in 8 Alaskan infants were at increased risk of SIDS by being put to sleep on their stomachs.[†]
- From 1996-2002, the prevalence of putting infants to sleep on their backs significantly increased among Alaskan mothers – nearly 70% for Alaskan mothers overall and nearly 90% for Alaska Native mothers. (Figure 2)



Co-Sleeping

- The prevalence of Alaskan mothers always or almost always co-sleeping with their infants has been steadily increasing over the years, though it shows a plateau effect for the 2000s. In 2002 the prevalence was nearly 2.5 times greater than what it was in 1991. (Figure 3)
- The percent of women who “sometimes” co-sleep with their infant has remained fairly consistent, around 40%, so it appears that the trend is moving from “Never” to “Ever” co-sleeping. (Figure 3)



Disparities

Infant Sleep Position

Analysis of Alaska PRAMS data indicated that regardless of race, maternal age, education, or prenatal Medicaid status Alaskan mothers did not differ significantly in the manner they placed their infant down to sleep. They did, however, differ by region.

- During 1999-2001, Alaskan women living in the Southwest region were less likely than women from the Southeast and Anchorage/Mat-Su regions to routinely put their babies to sleep on their backs (57.2%-70.2%, range for all regions).[‡]

Co-Sleeping

Analysis of Alaska PRAMS data indicated that race, maternal age, education, region, and Medicaid status were associated with co-sleeping behavior.

- Non-white women are more likely than whites to co-sleep with their infants.³ Since 1991, Alaska Native co-sleeping prevalence has always been higher than the overall population of mothers of newborns, though the gap has narrowed over the years. In 2001, over 50% of Alaska Native mothers indicated they co-sleep with their newborn.[‡]
- Alaska Native and Asian/Pacific Islander mothers were significantly more likely to indicate that they or someone else always or almost always co-sleeps with their infant compared with white or black mothers.[‡]
- Co-sleeping was more common among teenage mothers than older mothers. Half of all teen mothers indicated their infant shares a bed. The prevalence of infant co-sleeping is similar for mothers age 20 or older (a little over one-third) regardless of age category.[‡]
- Nearly 60% of mothers with less than a high school education indicated their infant co-sleeps, compared with less than 40% of mothers with at least a high school education.[‡]

- Mothers who used Medicaid for prenatal care expenses reported a significantly higher prevalence of co-sleeping with their infant than non-Medicaid recipients.[‡]
- During 1999-2001, the Northern and Southwest regions of Alaska showed significantly higher co-sleeping prevalence than all other regions – 64.7% and 58.9%, respectively. The Interior region had the lowest co-sleeping prevalence than any other region (28.6%).[‡]

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

Infant Sleep Position

The American Academy of Pediatrics (AAP) recommends that healthy infants younger than 6 months of age should be placed to sleep on their back. Caretakers of preterm and low birth weight infants and infants with other substantial health problems are recommended to consult their doctor for advice.⁴

Co-Sleeping

Studies in Alaska have found an association between co-sleeping and infant death only in cases where the infant was sleeping with an alcohol or drug-impaired adult.⁵

Since bed sharing or co-sleeping may be hazardous under certain conditions, the AAP recommends that adults (other than the parents), children, or other siblings should avoid bed sharing with an infant. Parents who choose to bed share with their infant should not smoke or use substances that may impair arousal from sleep, such as alcohol or drugs.⁴

As an alternative to bed sharing for mothers that choose to co-sleep for convenience in breastfeeding, the AAP recommends that parents might consider placing the infant's crib near their bed to allow for more convenient breastfeeding and parent contact. If a mother chooses to have her infant sleep in her bed to breastfeed, the AAP recommends that parents place infants in the non-prone sleep position, avoid soft surfaces or loose covers, and avoid entrapment by moving the bed away from the wall and other furniture and avoid beds that present entrapment possibilities.⁴

Intervention Effectiveness

In 1996, the "Back to Sleep" awareness campaign was initiated in Alaska to educate parents about reducing the risk of Sudden Infant Death Syndrome (SIDS) by placing their infants to sleep on their backs.³ Concurrent with the Alaska "Back to Sleep" campaign, rates of SIDS or asphyxia of unknown etiology declined 45% between 1992-1996 and 1997.⁶

Capacity

Propriety

Supporting initiatives to reduce risk factors associated with infant mortality falls within the overall mission of the Women's, Children's, and Family Health Section. National initiatives have been set forth to address infant sleep position (HP2010).

Economic Feasibility

Economic feasibility has not been evaluated for this issue.

Acceptability

Increasing trends in placing infants to sleep on their backs is evidence that this issue and the associated interventions are acceptable in the community. Promoting behaviors that decrease mortality among Alaskan infants is acceptable.

Resources

Alaska Maternal-Infant Mortality Review (MIMR) Program; Alaska PRAMS; Alaska Bureau of Vital Statistics

"Back to Sleep" Campaign

Legality

Not an issue.

References

- 1 Beck LF, Johnson CH, Morrow B, et al. PRAMS 1999 Surveillance Report. Atlanta, GA: Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. 2003.
- 2 Hauck FR, Herman SM, Donovan M, et. al. Sleep Environment and the Risk of Sudden Infant Death Syndrome in an Urban Population: The Chicago Infant Mortality Study. *Pediatrics* 111(5):1207-1214. May 2003.
- 3 Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. p 80. June 2003.
- 4 American Academy of Pediatrics. Changing Concepts of Sudden Infant Death Syndrome: Implications for Infant Sleeping Environment and Sleep Position. *Pediatrics*. 105(30):650-56. Mar 2000.
- 5 Gessner BD, Ives GC, Perham-Hester KA. Association Between Sudden Infant Death Syndrome and Prone Sleep Position, Bed Sharing, and Sleeping Outside an Infant Crib in Alaska. *Pediatrics*; 108 (4): 923-927. 2001.
- 6 Gessner BG. Findings of the Alaska Maternal-Infant Mortality Review, 1999. Family Health Dataline. State of Alaska, Department of Health and Social Services, Section of Maternal, Child and Family Health. 6:2. 2000.

Data Sources

† Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2002 Data: State of Alaska, DHSS, DPH.

^ National Infant Sleep Study, 2002 Data: National Institute of Health, National Institute of Child Health and Human Development.

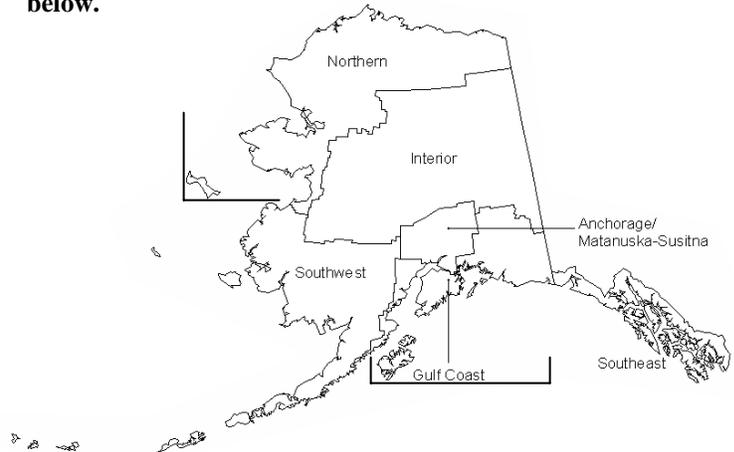
* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

‡ Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001 Data: State of Alaska, DHSS, DPH. Alaska Maternal and Child Health Data Book 2004: PRAMS Edition (in prep).

Notes

Prevalence estimates for PRAMS data are among women that delivered a live-born infant.

Region groupings are based on the six Alaska Department of Labor regions as shown in the map below.





Women's, Children's, & Family Health



March 2005

Title V Needs Assessment: Special Series Fact Sheet

Vol. 1 No. 18

Unintentional Infant Injury in Alaska

Although largely preventable, the most common causes of unintentional injury deaths among infants in Alaska and the U.S. are suffocation, motor vehicle accidents, and drowning. Promoting safe home and sleep environments, and regular and proper use of car seats are of critical importance to reduce unintentional infant morbidity and mortality. According to the Centers for Disease Control and Prevention (CDC), many children who ride in child safety seats are improperly secured. A national study estimated that only 15% of children in safety seats were correctly harnessed into correctly installed seats.¹ Mother-infant co-sleeping and infant sleep position are important topics that are addressed in the fact sheet 'Infant Sleep Position and Co-Sleeping in Alaska' as part of this series.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska	Nation	Healthy People 2010 Goals*
Non-Fatal Unintentional Injury Hospitalizations			
Non-fatal unintentional injury rate per 100,000	286.9 (1997-01) [†]	271.2 (2002) [^]	Dev.
Non-fatal motor vehicle occupant rate per 100,000	24.0 (1997-01) [†]	25.1 (2002) [^]	---
Non-fatal falls rate per 100,000	132.2 (1997-01) [†]	116.8 (2002) [^]	---
Unintentional Injury Mortality			
Unintentional injury mortality rate per 100,000	96.9 (2000-02) [‡]	23.7 (2000-02) [§]	17.5
Motor vehicle mortality rate per 100,000	4.9 (2000-02) [‡]	3.3 (2000-02) [§]	NA
Mortality due to drowning rate per 100,000	3.9 (2000-02) [‡]	1.6 (2000-02) [§]	0.9
Mortality due to falls rate per 100,000	0 (2000-02) [‡]	0.5 (2000-02) [§]	NA
Mortality due to fire rate per 100,000	2.0 (2000-02) [‡]	1.1 (2000-02) [§]	0.2
NA: The target is not applicable for this indicator. The target setting method for the HP2010 goals is 'Better than the best', which for some special populations does not currently apply.			

- Nearly half (47.1%) of all non-fatal, unintentional injury hospitalizations among Alaskan infants were due to falls, compared to 40.1% for the nation.
- Unintentional injury accounted for 14.2% of all infant mortality in Alaska, compared to 3.4% for the U.S. as a whole. During this time period, Alaska's unintentional injury mortality rate among infants was 4 times that of the Nation.

Severity

Falls are a leading cause of traumatic brain injury (TBI) among infants and children. Degree of disability resulting from a TBI can vary depending on force of impact and area of the brain that has been injured. A TBI may result in slight learning disabilities, retinal damage that causes loss of vision, mental retardation, cerebral palsy, or death.²

According to the CDC, more than 40% of children that receive emergency room care for non-fatal submersion require hospitalization and are at risk of brain damage which can result in long-term disabilities ranging from memory problems and learning disabilities to the permanent loss of basic functioning.³

Urgency

Non-fatal Unintentional Injury

- Data from the Alaska Trauma Registry for 1997-2001, indicated that 8 in 10 non-fatal injury hospitalizations among infants were due to unintentional injuries. Of these nearly half (47.1%) were due to falls. (Figure 1)
- After falls, swallowing an object, poison, burns, motor vehicle accident, and suffocation were the most common cause-specific, non-fatal unintentional injuries among Alaskan infants. (Figure 1)

Unintentional Injury Mortality

- In Alaska, the trend in infant mortality due to unintentional injury declined over the 1990s, but increased dramatically during the early 2000s – an

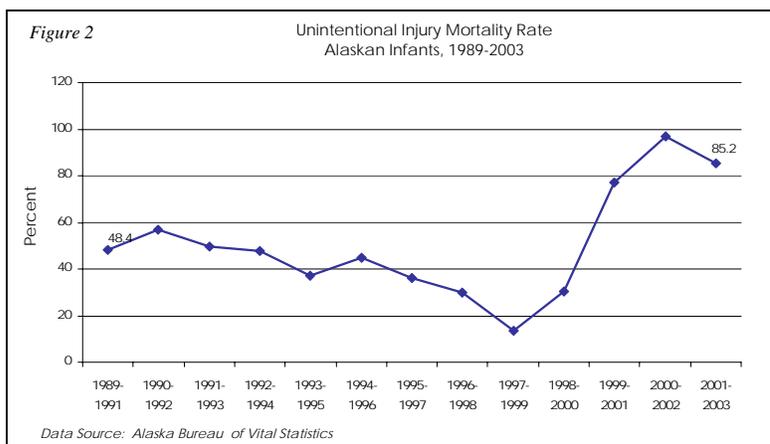
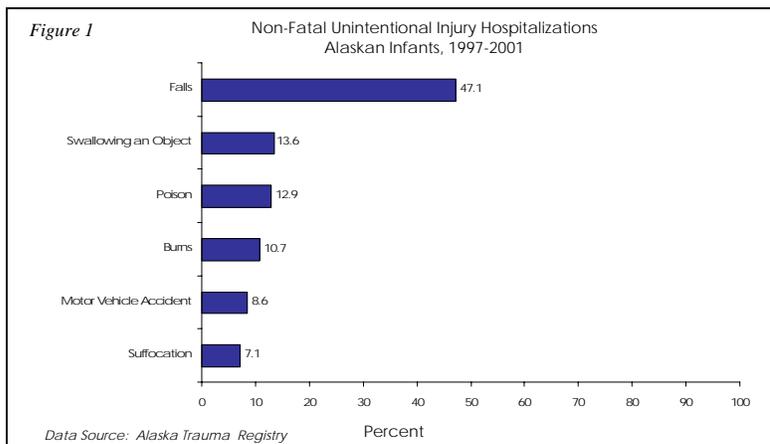
- The overall rate of unintentional injury mortality among Alaskan infants is 5.5 times higher than the Healthy People 2010 goal.
- Compared to the Nation, rates of non-fatal unintentional injury among infants – overall, those due to motor vehicle accident, and those due falls, were similar in Alaska.

effect due to an unusually large number of unintentional injury deaths in 2001, of which, more than half were asphyxia related. (Figure 2)

- The average unintentional injury mortality rate from 1994-2003 was 50.3 per 100,000 infants.
- Over the last decade, the most common cause of unintentional injury mortality among Alaskan infants was suffocation – accounting for nearly 65% of all unintentional injury mortality. (Figure 3)
- The second most common cause of unintentional injury mortality for Alaskan infants over the last decade was motor vehicle accidents – accounting for nearly 10% of all unintentional injury mortality. (Figure 3)

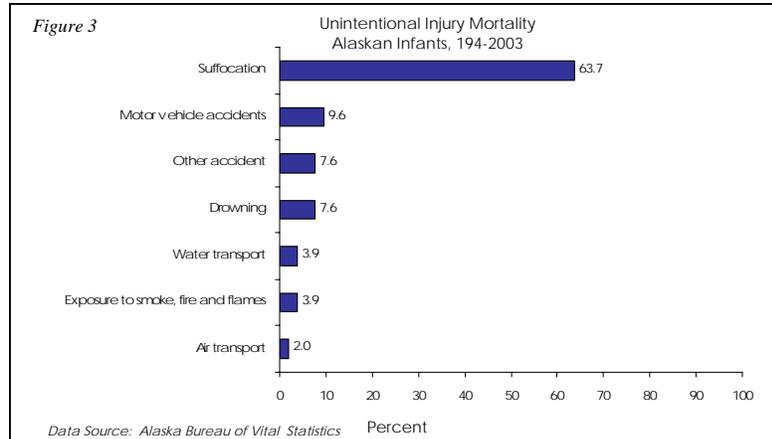
Disparities

Non-fatal Unintentional Injury



- During 1997-2001, compared to non-Natives, the rate of non-fatal unintentional injury hospitalizations among Alaska Native infants was 1.8 times higher – 240.6 and 421.5 per 100,000 infants, respectively.

Unintentional Injury Mortality



- Over 30% of all unintentional injury deaths during 1994-2003 occurred in 2001. Of these deaths, 7 in 10 were among Alaska Natives.
- More than 80% of the unintentional injury deaths among Alaska Natives during 2001 were asphyxia related. (Refer to Notes)

Economic Loss

Analysis of Alaska Trauma Registry records of Medicaid patients from 1995-1999 showed that the average medical cost per injury based on hospital charges for children 0-20 years of age included: \$4,100 per poisoning injury; \$20,000 per motor vehicle traffic occupant injury; and \$7,800 per burn injury.⁴ The Trauma Registry only records costs of hospitalization for injury. The figures do not include physician services billed separately, laboratory work billed separately, ambulance service transport and patient care, outpatient treatment, rehabilitation, out-of-state hospitalization, and post-hospital care. Severe burn injuries are transported to out-of-state burn centers. The average charge for pediatric admissions to burn centers is \$22,700 per case.⁴

Interventions & Recommendations

There are several recommendations for preventing unintentional injury among infants, including: proper and regular use of infant car seats; safe home environment for prevention of death and injury related to falls, drowning, choking, fire, and poisoning; safe sleeping environment including safe co-sleeping practices and appropriate infant sleep environment; increased access to poison control centers; ability of caregivers to recognize age appropriate foods and toys and provide CPR. The American Academy of Pediatrics recommends that pediatricians counsel parents about falls from windows, decks, fire escapes and age appropriate interventions to reduce the risk of drowning.^{5,6}

The Task Force on Community Preventive Services (TFPCS) recommends two interventions to increase child safety seat use: laws mandating the use of child safety seats

and programs that distribute child safety seats and educate parents about their use (Alaska currently has such laws and programs). They also recommended community-wide information and enforcement campaigns and incentive and education programs.⁷

Intervention Effectiveness

Reviews of published studies provide strong evidence of the effectiveness of the recommendations set forth by the TFCPS. Their review found that laws mandating the use of child safety seats were effective in decreasing fatal and nonfatal injuries, and in increasing child safety seat use. When correctly installed and used, child safety seats reduce the risk of death by 70% for infants and 47%-54% for toddlers and reduce the need for hospitalization by 69% for children aged 4 years and younger.⁸

Functional smoke alarms cut the chances of dying in a house fire by 40% to 50%. However, at least one-quarter of U.S. households lack working smoke alarms.

Injury Prevention in Alaska

- During 1996-1999, Alaska PRAMS data indicated that 87.2% to 99.6% of mothers living in urban areas reported their baby regularly rides in an infant car seat, 95.1% of families with newborns had a working smoke alarm in the home, and 13.4% of mothers took parenting classes.⁹
- According to data from Alaska PRAMS during 1996-1999, Alaska Native mothers, teen mothers, and mothers with a previous live-birth were less likely to report that their infant regularly rides in an infant car seat than non-Native mothers, mothers 20 years of age or older, and first time mothers.⁹
- According to the Alaska Behavioral Risk Factor Surveillance System (BRFSS) 97.6% of Alaskans reported having a smoke detector in their home in 1999, however, nearly 1 in 5 had either never checked to see if they were working or had not done so in more than one year.
- According to data from Alaska PRAMS, during 1996-1999, the prevalence of having a working smoke alarm in the home was lower among Alaska Native mothers (89.9%) when compared to white (97.1%) and black mothers (97.6%).⁹

Capacity

Propriety

Reducing risk factors associated with mortality for Alaskan infants falls within the overall mission of the Women's, Children's, and Family Health Section. Infant mortality is an important issue among the maternal and child health population – national initiatives have been set forth to reduce deaths due to unintentional injury (HP2010) and the Maternal and Child Health Bureau requires that several indicators of infant mortality are monitored and assessed on a yearly basis.

Economic Feasibility

Research shows that it costs far less to prevent injuries than it does to treat them. According to the Association of State and Territorial Directors of Health Promotion and Public Health Education, every \$1 spent on a smoke alarm saves \$69 in fire related costs; every \$1 spent on a child safety seat saves society \$32; every \$1 spent on poison control centers saves \$7 on medical costs.

Acceptability

There are several successful state and national programs that promote injury prevention targeted toward infants and children through community awareness.

Resources

Data: Alaska Trauma Registry and Alaska Bureau of Vital Statistics provide data for assessing and monitoring injury and mortality and can provide information on risk factors that can be used to target high-risk groups. Alaska PRAMS data can also be used to identify potential risk factors among mothers of newborns that may be associated with injury among infants (i.e., smoke detector, co-sleeping). The Alaska BRFSS can provide data for monitoring injury control (i.e., smoke detector, use of child restraints).

Services: CHEMS infant car seat program. Injury Prevention in a Bag provides safety education and devices to high-risk families through home visitation by training groups like Healthy Families, Head Start, and Village Health Aides. The Rural Smoke Alarm and Fire Prevention Program provides smoke alarm inspection, devices, and fire safety education and prevention to high-risk families – those that are low income or with children under the age of 5. The Urban Smoke Alarm and Fire Prevention Program provides devices to high-risk residences, such as multi-family dwellings, in the Anchorage, Fairbanks, and Juneau areas.

Legality

Not an issue.

References

- 1 Taft CH, Mickalide AD, Taft AR. Child passengers at risk in America: a national study of car seat misuse. Washington (DC): National SAFE KIDS Campaign; 1999.
- 2 NIH. National Institute of Neurological Disorders and Stroke.
- 3 National Center for Injury Prevention and Control. Centers for Disease Control and Prevention. Water-Related Injuries Fact Sheet. <http://www.cdc.gov/ncipc/factsheets/drown.htm> Accessed Jan 2004.
- 4 Injury Surveillance and Prevention Program. Section of Community Health and EMS. Division of Public Health. Department of Health and Social Services Report on Injury Prevention Activities of Community Health and EMS Targeting Medicaid-Eligible Youth. 2002
- 5 American Academy of Pediatrics. Committee on Injury and Poison Prevention. Falls From Heights: Windows, Roofs, and Balconies. PEDIATRICS: 107(5):1188-1191. May 2001.
- 6 American Academy of Pediatrics. Policy Statement. Committee on Injury, Violence, and Poison Prevention. Prevention of Drowning in Infants, Children, and Adolescents. PEDIATRICS: 112(2). August 2003
- 7 Zaza S, Sleet DA, Thompson RS, Sosin DM, Bolen JC. Task Force on Community Preventive Services. Reviews of evidence regarding interventions to increase use of child safety seats. American Journal of Preventive Medicine 2001;21(4 Suppl):31-47.
- 8 The Guide to Community Preventative Services. Task Force on Community Preventive Services. 2001. Available at: <http://www.communityguide.com>
- 9 Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53 June 2003.

Data Sources

† Alaska Trauma Registry, 1997-2001 Data: State of Alaska, DHSS, DPH.

^ National Electronic Injury Surveillance System (NEISS), 2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Feb 2005.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

‡ Alaska Bureau of Vital Statistics: State of Alaska, DHSS, DPH. Jan 2005.

¥ National Center for Health Statistics (NCHS) Vital Health Statistics System, 2000-2002 Data in: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). Feb 2005.

Notes

Non-fatal unintentional injury estimates for the Nation and Alaska include infants that were hospitalized, transferred to another acute care facility, held for observation, or left against medical advice and would otherwise have been admitted.

Asphyxia related deaths in 2001 for Alaska included: probable overlie; positional asphyxia; asphyxia, undetermined; and overlie.



Women's, Children's, & Family Health



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Child and Adolescent Access to Health Care in Alaska

Access to health care often depends on whether a person has insurance. The uninsured are less likely to have a primary care provider, receive appropriate care, or have had any recent medical visits.¹ Compared to insured children, uninsured children are less likely to have a regular source of health care and are less likely to use prescription medications.²

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2002-03†	Nation 2003^	Healthy People 2010
Percent of children less than 18 years of age without health	13.1%	11.8%	0%

- Alaska has not achieved the Healthy People 2010 goal to have all children under age 18 insured.
- Similar to that of the Nation, among Alaskan children less than 18 years of age, approximately 1 in 8 are uninsured.

In addition to the HP2010 goal, a Healthy Alaskan goal is to increase the proportion of children eligible for Denali KidCare or Medicaid who have public health insurance.

Severity

Although the association between insurance status and utilization of health care services among adults is well-documented, less is known about the utilization of services among children. One study found that the uninsured were 4 times as likely to need medical care and not get it. Further exacerbating health problems and increasing the risk of hospitalization, uninsured children are more likely to receive late or no care for health problems.³

Urgency

- From 2001-2003, the proportion of uninsured Alaskan children and teens has remained stable.
- During 2004, the US Census Bureau estimated that 5.7% of children and teens under 19 with an income at or below 200% of the Federal Poverty Limit were uninsured.⁴ The percentage may be inflated, because access to health care through the Native health services system was not counted as insurance. During 2003, 9% of respondents responded on the Alaska Behavior

Risk Factor Surveillance System that the Indian Health Service paid for most of their child's health care and 2.5% of them said their child had no insurance.⁵

- Between 1992 and 2001, the cost of medical care in Alaska increased more than 60%, compared to a 25% increase for the overall Consumer Price Index.⁶ Of cities surveyed by the American Chamber of Commerce Researchers Association (ACCRA), health care costs were higher in Fairbanks, Juneau and Kodiak than in Anchorage, and all four cities are in the top twenty for health care costs among those surveyed across the US.⁶

Available Care

- Alaska's small population and remote location limit the depth and scope of some health care services, even in Anchorage. During April 2004, the All Alaska Pediatric Partnership determined that additional pediatric sub-specialists are needed in Alaska in the following fields: pulmonology, general surgery, urology, endocrinology, neurology and rheumatology.⁷
- Many dentists do not accept new Medicaid clients in their practices and the state has only 14 pediatric dental specialists. Compounding the problem, the Alaska dental labor force is aging: during FY2002 more than 25% of active, licensed dentists were age 55 years and older and 39% were 45-54 years.⁸
- The Division of Behavioral Health Services (DBH) completed a comprehensive assessment of the mental health and substance abuse needs of Alaska's children and youth during 2004. It found that although nearly 6,000 children and youth received services during fiscal year 2002, another 9,300 with significant mental health services needs did not.⁹

Barriers to Care

- About one-third of Alaskans live in rural and remote communities, most of which are not on the road system. Community Health Aide/Practitioners and itinerant providers working in village health clinics provide the majority of routine care to these persons. Distance from secondary and tertiary care facilities,

weather and complex interpersonal relationships between providers and patients may complicate health care delivery in these communities.

- Adolescents use the health care system differently than younger age groups, and many are likely to miss needed care.¹⁰ School-based health clinics are one means of eliminating barriers to care,¹¹ but only one high school in Alaska has a school-based clinic. During Federal Fiscal Year 2003, 36% of Medicaid-enrolled 10–18 year-olds had a regular check-up, while 56% of Medicaid enrolled infants and children < 10 years of age had one.¹²

Disparities

The scope of the Alaska Native health services system means that Alaska's largest minority has as good as or better access to care as other groups regardless of location of residence. Other demographic groups, such as recent immigrants to the United States and non-Natives living in remote communities face the most significant challenges.

Access to oral health care has long been a challenge, especially for low-income families living outside Anchorage.

- Approximately one-third (37%) of the 88,774 children enrolled in Medicaid during Federal Fiscal Year 2003 received any Medicaid-funded dental services.¹³
- This proportion varied dramatically across the State, from 28% of the children living in the North Slope Borough to 53% of those living in the region served by the Eastern Aleutian Tribes.¹³
- An oral health screening of Alaska Native dental clinic users during 1999 indicated Alaska Native children experienced 3 to 4 times the amount of dental decay as their national counterparts. Additionally, severe early childhood caries was found among 60% of 2-4 year old Alaska Native children screened during the project.¹⁴

Economic Loss

During calendar year 2003, Alaska Medicaid paid for travel to receive health care for more than 14,000 individuals, 60% of whom (8,631) were under 18. The average per capita cost of Medicaid-funded travel for these children and youth was nearly \$1,700, of which 44% (\$440) was spent on airfare.

The Division of Behavioral Health Children and Youth Needs Assessment found that the type of mental health services available dominates the choice of care provided for a child, rather than the child's treatment needs. Consequently, children or youth with acute needs may be placed in day treatment or an emergency shelter because no higher-level resources are available, or they may remain in an acute setting longer than needed because of limited access to community-based care.¹⁵

Interventions & Recommendations

Health Insurance Coverage

During 2003, the Alaska Legislature voted to lower the eligibility ceiling for Medicaid from 200% of the Federal Poverty Level (FPL) to levels equal to 175% of the 2002 FPL as a cost-savings measure. Since then, Medicaid enrollment for children in families with incomes above 133% FPL has remained steady, although it has increased substantially among families in the lower income group. Families that had qualified for Medicaid before the eligibility change have limited disposable income and are at high risk of being underinsured or deferring care, especially if a child has unusual health care needs.

Access to Oral Health Care

Head Start Oral Health project – during the early 1990's, the Head Start program in Norton Sound worked with the agency providing technical assistance to Head Start programs in Alaska to create a comprehensive oral health care program.

Pediatric dentist travel – The Medicaid Early Periodic Screening Diagnosis and Treatment program paid for travel by pediatric dentists from Anchorage to villages served by the South East Regional Health Consortium (SEARHC) and to Soldotna during fiscal year 2001-03.

Neighborhood health centers – The number of communities served by a neighborhood health center has increased since 2000 and many have integrated a dental facility.

Dental Health Aides - The Native health services system is developing a new type of Community Health Aide/Practitioner (CHA/P), called Dental Health Aides (DHA). As with the CHA/P program, DHAs are trained through certified programs and return to their communities to provide services.

Access to Mental Health Care

The Children and Youth Needs Assessment (CAYNA) recommends enhancing the Alaska mental health services system by adding: targeted case management and home-based services; therapeutic foster care; 120 residential care beds; a specialized evaluation and assessment center for young Alaskans who have been identified as being at high risk, difficult to serve, and needing specialized care; a secure/semi-secure long-term residential psychiatric treatment center; and an acute adolescent psychiatric unit.

There is an inadequate number of mental health care providers at all levels, and the CAYNA suggests creating a loan repayment, scholarship and grant program to support professionals in training and creating and facilitating internships and fieldwork in the area of children's services.¹⁵ Training for community-based paraprofessionals is available through the Rural Human Services Worker certificate sponsored by the University of Alaska Fairbanks.

Intervention Effectiveness

Analysis of data from the National Health Interview Survey showed that Medicaid expansions that increased the proportion of a State's eligible population lead to increases in enrollment, enhanced utilization of medical services, and lower child death rates.¹⁶

The Head Start Oral Health project had a strong positive impact, but was not implemented statewide. Although there has been attrition among the volunteer dentists, some continue to travel to the region to provide care and have anecdotally reported diminished numbers of children with severe oral health problems. The Pediatric dentist travel project was successful and is now self-sustaining as SEARHC pays for the travel from receipts from the clinics. The Cottonwood Neighborhood Health Center in Soldotna has an active dental clinic.

There were 149 village-based mental health workers who were attending or had completed the Rural Human Services Training program during FY 2004¹⁷, compared with 136 during FY 2000.¹⁸

Capacity

Propriety

The Women's, Children's, and Family Health Section (WCFH) should take the lead among State agencies for activities for oral health and pediatric sub-specialty access issues and should collaborate on access to mental health issues. The Divisions of Health Care Services and Public Assistance will be responsible for activities associated with raising the Denali KidCare eligibility ceiling. Although limited access to mental health services is extremely important, the Division of Behavioral Health has plans in place for addressing some of these issues. WCFH should participate in discussions and help identify concerns, but need not have a leading role.

Economic Feasibility

The economics of health care access are complex. Future cost savings from anticipated improved care must be weighed against the availability to raise public funds today and against foregone opportunities to invest in other interventions that might have larger future health impacts (e.g., economic development, safe water, primary prevention programs, and others). Moreover, many newer health interventions are of increasingly limited marginal benefit yet are often considerably more expensive than traditional interventions (for example, leukotriene modifiers versus inhaled steroids in the treatment of asthma); in this scenario, increasing the number of people with access may mean limiting the number of services accessible to each individual.

Acceptability

Access to care is a universally recognized benefit. Controversy exists over how to pay for it and what implementations will work.

Resources

- WCFH Oral Health Program and their collaborative work with Indian Health Services in developing the dental health aid program and pediatric dental residency.
- Collaborative partners such as the American Academy of Pediatrics-Alaska Chapter and the All Alaska Pediatric Partnership.
- The Specialty Clinics program, funded by Title V, is an excellent vehicle for responding to access to care issues for children with specific, rare, health care needs.
- Collaborative activities with grantees such as the University of Anchorage, the LEND program, Stone Soup Group, faith based non-profits organizations such as Catholic Social Services, medical centers, Federally qualified health centers, and care coordination organizations such as HOPE, ARC and others.
- Collaboration with services organizations such as the Lions club, Kiwanis, Shriners and others.
- Collaboration with the Medicaid program in the ongoing support and improvements to the SCHIP/Denali KidCare health program, CCMC & MRDD waiver programs through the Division of Senior Services and Developmental Disabilities, Qualis case management, Aetna and Blue Cross.

Legality

There is no specific state statute or regulation corresponding to these activities. Changing eligibility for Denali KidCare will only happen if the Legislature passes a new law.

References

- 1 U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 vols. Washington, DC: U.S. Government Printing Office. 2000.
- 2 Hadely J. Sicker and Poorer: The Consequences of Being Uninsured. Kaiser Commission on Medicaid and the Uninsured. 2002.
- 3 Health Insurance is a Family Matter National Academies Press. Washington, DC. 2002.
- 4 US Census Bureau. Annual Demographic Survey. Annual Social and Economic Supplement. Current Population Survey. 2004. Available at: http://ferret.bls.census.gov/macro/032004/health/h10_000.htm
- 5 Alaska Behavioral Risk Factor Surveillance Survey. State-Added Child Health Care Coverage/Access Report for the Annual SCHIP Report to CMS, 2003.
- 6 Fried N and Robinson D. The Cost of Living in Alaska, Alaska Economic Trends; 24(6); 3 - 16. June 2004.
- 7 All Alaska Pediatric Partnership. Meeting Minutes: April 23, 2004.
- 8 Rarig A. Unpublished data from Alaska Occupational Licensing. DHSS, DPH. 2002.
- 9 Alaska Division of Behavioral Health. Children and Youth Needs Assessment (CANYA) Report. March 2004.
- 10 Klein JD, Wilson KM, et al. Access to Medical Care for Adolescents: Results from the 1997 Commonwealth Fund Survey of the Health of Adolescent Girls. JAH; 25(2): 120-130. August 1999.
- 11 Juszczak L, Melinkovich P and Kaplan D. Use of Health and Mental Health Services by Adolescents Across Multiple Delivery Sites. ADH; 32(6) (supplement):108-118. June 2003.
- 12 Alaska Division of Health Care Services. FY 03 EPSDT Report to the Centers for Medicare and Medicaid Services (CMS 416). April 2004.
- 13 Alaska Division of Health Care Services. FY 03 Regional EPSDT report. December 2004.
- 14 Indian Health Service. An Oral Health Survey of American Indian and Alaska Native Dental Patients: Findings, Regional Differences and National Comparisons. Rockville, MD. Indian Health Service, U.S. Department of Health and Human Services. 1999.
- 15 Alaska Division of Behavioral Health. Children and Youth Needs Assessment (CANYA) Report. March 2004.
- 16 Currie J, and Gruber J. Health Insurance Eligibility, Utilization of Medical Care, and Child Health. Quarterly Journal of Economics; 111(2):431-466. 1996.
- 17 Alaska Suicide Prevention Council. Alaska Suicide Prevention Plan. September 2004.
- 18 Healthy Alaskans 2010: Mental Health. Volume 1:5-3. April 2002.

Data Sources

+ Urban Institute and Kaiser Commission on Medicaid and the Uninsured, 2002-2003 Data: Distribution of Children Under 18 by Insurance Status. Available at: www.statehealthfacts.org

^ Urban Institute and Kaiser Commission on Medicaid and the Uninsured, 2003 Data: Distribution of Children Under 18 by Insurance Status. Available at: www.statehealthfacts.org

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Early Identification and Intervention Among Children in Alaska

Early intervention services are designed to meet the developmental needs of children from birth to 3 years of age who have a developmental delay (e.g., physical, emotional, communicative, cognitive, or adaptive development). Children with developmental delay and disabilities have unique special health care, developmental and education needs. Developmental delays and disabilities that are not addressed early can impact a child's health, family function and growth and development. Infant and toddler early intervention programs are intended to identify developmental delay, intervene early to improve child and family function, and ameliorate, whenever possible, conditions that increase the burden of long-term care associated with disabilities.

Seriousness

Healthy People 2010 Targets and National Data

There are no Healthy People 2010 Objectives that address early intervention and identification.

- During 2004, a federal contract was obtained to determine the estimated prevalence for infants and toddlers in Alaska requiring early intervention services. The report found that Alaska fell somewhere in the middle of all states in serving infants and toddlers at 2.2%.¹

Severity

As many as 35% of students with learning disabilities do not finish high school. Students with attention deficit hyperactivity disorder (ADHD) are more likely to develop conduct, emotional and social problems, and as many as 20-25% of adults abuse alcohol, marijuana or other drugs. Individuals with ADHD are also at greater risk of illiteracy, unemployment, social maladjustment, anxiety, obsessive-compulsive disorder and other mental and physical disorders.²

Urgency

- In an average year in Alaska approximately 10,000 live births occur, and of these, 10.3% (1,028) are born preterm, 5.7% (573) are born with low or very low birth weight and 18% (1,800) are born with at least one reportable birth defect.³ Many of these children will qualify for early intervention services.
- During 2000, 6.9% (11,406) of non-institutionalized children in Alaska, ages 5-20 years have been estimated to have a disability;⁴ and an estimated 10.7% (20,222) children less than 18 years of age in Alaska have special health care needs.⁵
- With one of the country's most narrow definitions of eligibility for infant and toddler early intervention services – a delay of 50% or greater in one or more developmental domains – the Alaska Early Intervention/Infant Learning Program (EI/ILP) served

approximately 2.2% of the birth to three year old population for the period 2001-2003. Of the 1,737 children receiving EI/ILP services, 72% (1,258) met the federal Part C definition.¹

Disparities

In Alaska, studies identifying specific age, sex, and race disparities among children with developmental delay and disabilities are not readily available. Once a developmental delay or other disability exists, rural residence and poverty may be associated with less access to care, potentially exacerbating the progression and adverse consequences of the disability.

Economic Loss

According to a recent study conducted by the US Centers for Disease Control and Prevention, estimates for the national average lifetime cost per person by disability condition are: \$1,014,000 for mental retardation, \$921,000 for cerebral palsy, \$416,000 for hearing loss and \$566,000 for vision impairment.⁶ According to the U.S. Department of Education, the base national expenditure on a regular education student amounts to \$6,556 per pupil compared to \$12,474 for a student receiving special education services.

Interventions & Recommendations

The U.S. General Accounting Office's (GAO) 2001 report to congress recommended that the Center's for Medicaid and Medicare Services Administration (CMS) encourage states to develop state-specific Early and Periodic Screening and Developmental Testing (EPSDT) improvement plans. Of specific concern is developing strategies to provide services to children with less severe disabilities who may be more amenable to interventions than more severely affected children, an issue noted 10 years ago by the Alaska Division of Public Health.¹² Additional recommendations include developing strategies to recruit and retain medical providers, particularly for underserved (primarily rural) areas.

The Early Intervention/Infant Learning Program should continue to offer services to Alaska's most vulnerable

population. With the recent reauthorization of the federal Individuals with Disabilities Education Act, the State should examine the possibility of broadening the eligibility definition for services to include risk factors present in many families in Alaska. The federal Office of Special Education Programs has now included child and family outcomes that will provide much needed data about the progress of the children and families who participate in the program, and hence, can add to the overall picture of effectiveness of the program.

The Child Abuse Prevention and Treatment Act (CAPTA) as amended in 2003 included the provision of screening by the Part C program for all children who come to the attention of state child welfare agencies. This provision has had uneven consequences for Alaska's 19 local Early Intervention grantees. In more urban programs, this provision has added many more children to the list of those waiting to be screened for services, while in rural areas, the impact has not been so great. Overall, the impact of the CAPTA requirement on Alaska's Early Intervention Program has been time intensive for screenings, but not a significant amount of additional children becoming eligible for services.

Intervention Effectiveness

Alaska's Early Intervention Program provides early identification and intervention to infants, toddlers and their families in natural environments. Children are identified through Child Find activities in local communities in collaboration with other community partners including school districts, public health nursing, child protection programs and early childhood programs.

Through early intervention programs, young children with developmental delays are addressed through a family-centered approach, impacting the amount of special education services that are required for these children when they transition to school districts at age three.

Capacity

Propriety

The Alaska Office of Children's Services (OCS) and the Department of Education and Early Development (DEED) are the primary agencies responsible for early identification and intervention. The Women's, Children's, and Family Health Section is not likely to have a major role.

Economic Feasibility

The Health Resources and Services Administration (HRSA) awarded the Alaska OCS \$100,000 annually for up to two years for early childhood comprehensive systems planning (ECCS).⁷ The ECCS program intends to draft a state plan to improve system capacity and services for children and families in Alaska.

Acceptability

Early identification and intervention programs have high acceptability among parents, health care providers and community groups. According to an EI/ILP parent

satisfaction survey, results indicate a high level of satisfaction with program services.

Resources

The EI/ILP program is currently carried out by 19 grantees across the state of Alaska, each with a distinct service area. For Fiscal Year 2006, a cost analysis will be conducted to determine equity of services across the grantee system and cost for service delivery. This analysis, coupled with a detailed estimated prevalence for EI/ILP eligibility, may require changes to the program and affect the current capacity for services.

Legality

DHSS maintains Memoranda of Agreement supporting the coordination of children's services and joint action across DHSS agencies.⁸

Birth defects are reported to the Alaska Birth Defects Registry as required by Alaska Administrative Code: 7 AAC 27.012.⁹

States must comply with the Individual's with Disabilities Education Act (IDEA). As required under IDEA, children receive regular and special education services provided in the least restrictive environment.¹⁰ The 2004 Reauthorization of IDEA was signed into law the President on December 3, 2004. Implications for practical implementation and policy change within states are in progress.¹¹

DHSS and EED are working on a Memoranda of Agreement regarding EI/ILP and Special Education Programs.

Data sharing among state programs including DHSS and EED must comply with the Health Insurance Portability and Accountability Act (HIPAA).

References

- 1 Goldhammer, K. Alaska Prevalence Report for Part C Eligibility. 2005.
- 2 Boon, R., Submission to the Legislative Council of New South Wales, Standing Committee on Social Issues, Early Intervention (0-8 years) for Learning Disabilities Including ADHD/ADD Multi-modal intervention strategies. 2001 Legislative Report.
Available at: <http://home.iprimus.com.au/rboon/EarlyInterventionInquiry.htm>
- 3 Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 15 June 2003.
- 4 U.S. Census Bureau, 2000 Decennial Census, Fact Sheet: Table DP-2. Profile of Selected Social Characteristics: 2000, Geographic Area: Alaska.
- 5 National Survey of Children with Special Health Care Needs (2001). Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook. Rockville, MD: U.S. Department of Health and Human Services. 2003.
- 6 Centers for Disease Control and Prevention. Economic Costs Associated with Mental Retardation, Cerebral Palsy, Hearing Loss, and Vision Impairment - United States, 2003. MMWR; 53(03):57-59. January 2004.
- 7 Alaska Office of Children's Services. Health Resources and Services Administration, Early Childhood Comprehensive Planning Grant, 2003.
- 8 Alaska Division of Behavioral Health, Community Mental Health Block Grant, State Plan for Fiscal Year 2005, Children's Plan. pg. 85-86. August 2004.
- 9 Alaska Division of Public Health. Conditions Reportable to Public Health. Alaska Department of Health & Social Services, Division of Public Health, Section of Epidemiology. 2001.
- 10 U.S. Department of Education. Federal Register; 64(48):34 CFR Parts 300 and 303. March 1999.
Available at: http://www.cec.sped.org/law_res/doc/law/downloadRegs.php
- 11 National Dissemination Center for Children with Disabilities. Available at: <http://www.nichcy.org/reauth/scoop.htm>
- 12 Section of Maternal, Child, and Family Health. Alaska Division of Public Health. Early Intervention Services in Alaska and Part H of the Individuals with Disabilities Education Act. Family Health Dateline. 1(1). October 1995.



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Child and Adolescent Mental Health in Alaska

According to the Global Burden of Disease, a study commissioned by the World Health Organization and the World Bank, four of the ten leading causes of disability are related to mental health. Furthermore, mental health disorders account for over 15% of the burden of disease in the United States, more than the disease burden caused by all cancers.¹

Nationally, 1 in 5 children have a diagnosable mental, emotional, or behavioral disorder; and up to 1 in 10 may suffer from a serious emotional disturbance. However, 70% do not receive mental health services.²

In Alaska, given the level of adolescent suicide, substance abuse, domestic violence, child abuse and neglect, and children living in custodial arrangements, there has been increasing concern for the mental health status of children and adolescents and the availability and accessibility of mental health services in the State.^{3,4,5}

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003†	Nation 2003*	Healthy People 2010 Goals*
Percent of adolescents in grades 9 through 12 that attempted suicide requiring medical attention	2.1%	2.9%	1%

- The percent of Alaskan high school students that attempted suicide requiring medical attention was twice as high as the Healthy People 2010 (HP2010) goal; however, results were similar to the US as a whole.

The following Healthy People and Healthy Alaskans 2010 goals related to child and adolescent mental health are developmental: increase the number of persons seen in primary health care who receive mental health screening and assessment; increase the proportion of children with mental health problems who receive treatment; increase the proportion of juvenile justice facilities that screen new admissions for mental health problems; increase the proportion of persons with co-occurring substance abuse and mental health disorders who receive treatment for both disorders. At this time, targets have not been set and data sources have either not been identified or there is currently no system in place to collect data.

Severity

The Center for Mental Health Services (CMHS) estimates that nationally, 1 in 33 children and 1 in 8 adolescents may have depression. Furthermore, once a child experiences an episode of depression they are at high risk of having another episode within the next five years.⁶

In Alaska, the most common primary diagnoses of children receiving mental health services through the Division of Behavioral Health, financed through Medicaid, during

Fiscal Year 2001 were: Attention Deficit Hyperactivity Disorder (ADHD), Adjustment Disorders, Conduct Disorder, Depression, and Post Traumatic Stress Disorder.⁵ Many children have multiple diagnoses. Mental health disorders can contribute to poor school performance, drug use, unemployment, antisocial and criminal behavior, and self-destructive behavior, including suicide.

During 2001-2003, 49 Alaskan teens ages 15-19 committed suicide – a rate of 31 per 100,000 population.

Urgency

- In Alaska, a recent unpublished analysis of Medicaid billing claims from 1998-2002 found that each year approximately 10% (5,700) of the Medicaid-eligible children ages 0-14 years had billing claims for mental disorders, including 1.2% (100) of infants less than one year of age, 5.6% (945) of children 1-4 years of age, 11% (2,045) of children 5-9 years of age, and 16% (2,609) of children 10-14 years of age.
- Over a one-day count of Alaska's juvenile justice population completed during 2002, 40% of youth served by the Division of Juvenile Justice had at least one diagnosis of a mental disorder classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Within this group 42% had a co-occurring substance abuse disorder.⁵
- During 1999, an estimated 15,000 Alaskan adolescents ages 5-18 years had severe emotional disturbances; however, only one-third (36.6%) received treatment.

Disparities

Children with developmental disabilities are at an especially high risk of having co-occurring mental health disorders. Some recent studies have shown that between 30-50% of children with developmental disabilities also have mental health disorders.⁷ Specific disabilities have even higher rates associated with mental health disorders,

such as autism, Fetal Alcohol Spectrum Disorders, Down syndrome and Prader-Willi syndrome.

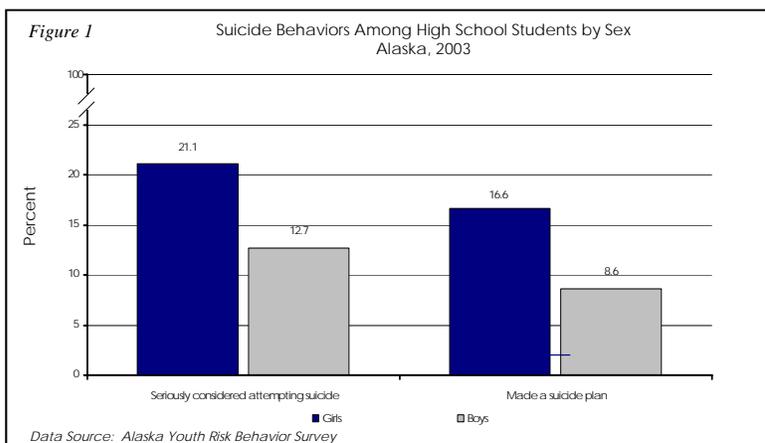
According to the Surgeon General's Report on Mental Health, disparities exist with respect to mental health care of racial and ethnic minorities when compared with whites. Minorities have less access to mental health services, are less likely to receive care, and their treatment is often of poorer quality. In addition, minorities are underrepresented in mental health research.² In Washington, Alaska Native and Hispanic youth with depression were 60-70% less likely than white youth to have received an antidepressant or a mental health specialty visit.⁸

American Indian and Alaskan Natives have the highest rate of suicide in the nation in the 15-24 year old age group and Alaska Native teens have one of the highest suicide rates ever documented.⁹

- Alaska Native teens are more likely to commit suicide than non-Natives. During 1991-1999 the average suicide rate for Alaska Native male teens (ages 15-19) was 6 times higher than for non-Native males in the same age group – 187.1 and 30.5 per 100,000 population, respectively.³
- In Alaska, over 175 rural villages, which are predominantly Alaska Native, have no local mental health services.

According to the National Institute of Mental Health, teen girls are more likely to develop depression than teen boys.¹⁰ Data from the 2003 Alaska Youth Risk Behavior Survey (YRBS) indicated that high school females grades 9 through 12 were more likely than their male counterparts to have suicidal thoughts and make suicide plans.¹¹

- Compared to males, Alaskan high school females were nearly 2 times as likely to report having made a suicide plan and 1.7 times as likely to report having seriously considered attempting suicide during 2003.¹¹ (Figure 1)



Economic Loss

Little research has been done to estimate the economic burden of mental illness in children and adolescents. The lack of research is due, in part, to the multiple systems through which mental health services may be delivered—health care, mental health, juvenile justice, child welfare, and education. No single system exists to capture data from these multiple provider sources. Also, indirect costs such as lost future wages and lower educational level attainment are difficult to estimate.

In one study, Medicaid was identified as the primary funding source of mental health services for children with severe emotional disturbance.¹² On average, children with behavioral disorders have yearly health expenditures similar to children with physical disabilities (\$1492 vs. \$1245) but greater than other children (\$834).¹³ During 1997, total national expenditures for mental health and substance abuse were \$82 billion, of which 13% was for persons less than 18 years of age.¹⁴

Interventions & Recommendations

When children experience mental health disorders, they and their families need access to a comprehensive array of services, often called a system of care. This system includes prevention, early intervention, screening, assessment, and a spectrum of treatment options ranging from in-home and outpatient services, to inpatient hospital care. Furthermore, families need access to information about best practices and training on strategies for helping their child succeed in school, in the community and at home.

Families of children with special health care needs often require specific behavioral strategies tailored to their developmental differences. For example, children with autism sometimes benefit from applied behavioral analysis. Positive behavior support is a specific way of looking at behavior as communication and is an especially effective intervention tool for children with communication or developmental delays.

Training and intervention in positive behavior support is available in Alaska. The Individuals with Disabilities Education Act requires functional behavioral analysis, a component of positive behavior support, for some children in special education.

The Division of Mental Health and Developmental Disabilities (DMHDD) administers a program that provides outpatient, residential, and local inpatient services administered by 32 local non-profit and 24 specialty service providers. Early intervention services assist with identification of children at risk of developing serious mental health disorders. High priority goals for the State are to increase the number of youth screened for mental health disorders in primary care settings, ensuring that all youth in state custody receive mental health screening, and increasing education of front-line providers.

Recent state efforts related to children include establishing the Infant Toddler Behavioral Health Committee and hiring a children's behavioral health coordinator in the Division of Public Health. The state has also sponsored a statewide Behavioral Health Initiative for primary caregivers and providers of young children. Additional issues to address include intake screening of children at Juvenile Justice and expanding the number of mental health counselors in rural villages.

Intervention Effectiveness

The majority of mental health disorders have unknown etiologies and so are not preventable. Interventions thus focus on early identification, removing barriers to care, and delivering appropriate treatment. Prevention and intervention services have the potential to reduce the economic burden of mental illness by improving developmental outcomes, which in turn leads to more productive adulthood. Furthermore, several studies have demonstrated that when barriers such as cost are removed, the use of mental health services dramatically increases.

Capacity

Propriety

Increasingly, mental health is considered a public health concern. Efforts undertaken by the Women's Children's and Family Health (WCFH) Section should be well-coordinated with the existing efforts underway in the Alaska Department of Health and Social Services (see Resources). Parts of surveillance and data analysis could legitimately fall within WCFH. However, the vast majority of issues related to mental health will fall within the jurisdiction of Department of Mental Health and Developmental Disabilities.

Economic Feasibility

The Alaska Department of Health and Social Services and the Alaska Mental Health Trust Authority are in the early stages of implementing a comprehensive children's mental health program, called Bring the Kids Home. The intent of this effort is to create a wider array of services and expertise in Alaska so that children with serious emotional difficulties do not have to leave the state in order to receive appropriate treatment. These activities encompass workforce development, home and community based services, care coordination and evaluation/data collection. Funding for the five-year, Bring the Kids Home initiative will commence during July 2005.

Acceptability

The State of Alaska is dedicated to decreasing the number of children receiving mental health services out-of-state, and there is general, wide support for this initiative at all levels of government, and among families.

Resources

Bring the Kids Home (see Economic Feasibility).

Legality

Not an issue.

References

- 1 Murray CJL, Lopez AD, eds. The Global Burden of Disease and Injury Series, Volume 1: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020. Cambridge, MA: Published by the Harvard School of Public Health on behalf of the World Health Organization and the World Bank, Harvard University Press. 1996.
- 2 U.S. Department of Health and Human Services. Mental Health: Culture, Race and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General. Rockville, MD U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services. 2001.
- 3 Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. pp 52-53 June 2003.
- 4 Alaska Suicide Prevention Plan, <http://health.hss.state.ak.us/suicideprevention/StatePlan/default.htm>
- 5 Alaska Department of Health and Social Services, Division of Behavioral Health. Children and Youth Needs Assessment Summary and Recommendations. State of Alaska, Department of Health and Social Services, Division of Behavioral Health. 2004.
- 6 U.S. Department of Health and Social Services, Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Mental Health Services. Major Depression in Children and Adolescents. CA-0011. April 2003.
- 7 Dykens, E. Psychopathology in Children with Intellectual Disability. J. Child Psychology and Psychiatry; 41(4):407-417. 2000.
- 8 Richardson LP, DiGiuseppe D, Garrison M, Christakis DA. Depression in Medicaid-Covered Youth: Differences by Race and Ethnicity. Arch Pediatr Adolesc Med; 157:984-9. 2003.
- 9 Gessner BD. Temporal Trends and Geographic Patterns of Teen Suicide in Alaska, 1979-93. Suicide Life Threat Behav; 27:264-73. 1997.
- 10 National Institutes of Health, National Institute of Mental Health. Depression. Bethesda (MD): National Institute of Mental Health, National Institutes of Health, US Department of Health and Human Services. 2000.
- 11 State of Alaska, Department of Public Health, Maternal and Child Health (MCH) Epidemiology. Risk Behaviors Among Alaskan Youth Decrease. Alaska MCH Facts; 3(4). May 2004.
- 12 Teich JL, Buck JA, Graver L, Schroeder D, Zheng D. Utilization of Public Mental Health Services by Children with Serious Emotional Disturbances. Adm Policy Ment Health; 30:523-34. 2003.
- 13 Guevara JP, Mandell DS, Rostain AL, Zhao H, Hadley TR. National Estimates of Health Services Expenditures for Children with Behavioral Disorders: An Analysis of the Medical Expenditure Panel Survey. Pediatrics; 112:e440. 2003.
- 14 Harwood HJ, Mark TL, McKusick DR, Coffey RM, King EC, Genuardi JS. National Spending on Mental Health and Substance Abuse Treatment by Age of Clients, 1997. J Behav Health Serv Res; 30:433-43. 2003.

Data Sources

† Alaska Youth Risk Behavior Surveillance Summaries (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53(SS-2). May 2004.

^ Youth Risk Behavior Surveillance Summaries (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53(SS-2). May 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Child and Adolescent Oral Health in Alaska

Despite dramatic reductions in tooth decay over the past century, dental decay remains one of the most common childhood diseases in the United States. According to the Centers for Disease Control and Prevention, dental decay is the second most common chronic disease among U.S. children.¹ Dental decay is 5 times more common than asthma and 7 times more common than hay fever.² In the United States, 25% of children and adolescents experience 80% of all dental decay occurring in permanent teeth.³ Fluoridated water, toothpastes, supplements and topical rinses/gels along with dental sealants have decreased the extent of decay in children. However, children in low-income families are disproportionately affected by dental decay.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2004 [†]	Nation 2000 [*]	Healthy People 2010 Goal [†]
Proportion of 3 rd graders with at least one sealant on a permanent molar tooth	52.4%	28% ¹	50%
Proportion of 3 rd graders that have experienced tooth decay	65.1%	50% ²	42%
Proportion of 3 rd graders with untreated decay	28.0%	26% ²	21%

¹ National data is for children ages 8 years only

² National data is for children ages 6-8 years only

- Alaska has achieved the Healthy People 2010 (HP2010) goal for sealant utilization among 3rd graders; furthermore, the proportion of Alaskan 3rd graders with at least one sealant on a permanent tooth was nearly 2 times higher than that of eight year olds in the Nation as a whole.
- The proportion of Alaskan 3rd graders that have experienced dental caries is more than 1.5 times higher than the HP2010 goal and 1.3 times higher compared to children ages 6-8 years nationally.
- Untreated dental decay among Alaskan 3rd graders is slightly higher than both the HP2010 goal and the proportion of 6-8 year olds with untreated dental decay in the Nation as a whole.

Severity

Dental decay is a preventable health problem; however, left untreated it can significantly affect health, ability to concentrate in school, and quality of life.¹ Nationally, children miss almost 52 million school hours annually because of oral health problems.⁴ Extensive tooth decay, pain, or infection can cause eating, learning, and speech

problems for children. Furthermore, many adolescents with oral problems such as decayed or missing teeth suffer embarrassment and diminished self-esteem.

Urgency

- An oral health screening of Alaska Native dental clinic users during 1999 indicated Alaska Native children experienced 3 to 4 times the amount of dental decay as their national counterparts.⁵
- Additionally, severe early childhood caries was found in 59.7% of 2-4 year old Alaska Native children screened during the project.⁵
- Medicaid/Denali KidCare is the dental coverage source for many of the children and adolescents with special health care needs. Only about 1 in 3 children enrolled in Medicaid/Denali KidCare receive an annual dental service.⁶ Furthermore, many dentists are not accepting new Medicaid clients in their practices and the state has only 14 pediatric dental specialists. Compounding the problem, the Alaska dental labor force is aging: during Fiscal Year 2002 more than 25% of active, licensed dentists were age 55 years and older and 39% were age 45-54 years.⁷

Disparities

Children in families with low incomes have 5 times more untreated decay than children in higher income families.⁸ Data from the 2001 National Health Interview Survey found that problems related to oral health are more common among black, Hispanic, and low-income children in the United States.¹

- Nearly 80% of children living at or above the Federal Poverty Level (FPL) had seen a dentist in the past year of the survey, compared to 62% of children below 200% of the FPL.¹

Data from the 2004 Oral Health Assessment of Alaskan 3rd graders indicated that race was significantly associated with oral health issues. Among 3rd grade children in the

State, Alaska Natives were significantly more likely to have experienced dental caries and to have untreated dental caries than white children.

- The prevalence of Alaska Native 3rd graders with a history of dental caries was 1.6 times higher than that of either white or black children – 87.3%, 54.7% and 53.7%, respectively.[†]
- Among Alaskan 3rd graders, Alaska Native children were 2.3 times more likely to have untreated dental caries compared to white children – 43.5% and 18.6%, respectively.[†]
- A history of dental sealants was more common among Alaska Native children (67.8%) than white (51.0%), black (29.6%), or Asian/Pacific Islander children (33.3%).[†]

Economic Loss

Nationally, an estimated 5-10% of preschool-age children have baby bottle tooth decay (early childhood caries).⁹ The cost of treating early childhood caries is \$1,000 – 2,000 per child and if hospitalization is required that cost is doubled.¹⁰ Further, children with early childhood caries may be highly susceptible to future caries development.¹¹

Interventions & Recommendations

- The primary public health measures for reducing caries risk, from a nutrition perspective, are the consumption of a balanced diet and adherence to dietary guidelines and the dietary reference intakes; from a dental perspective, the primary public health measures are the use of topical fluorides and consumption of fluoridated water.¹⁴
- Support efforts to optimally fluoridate community water systems or increase use of fluoride supplements in areas where fluoridated water is not available. Currently, the Alaska Oral Health Program along with staff from the Alaska Native Tribal Health Consortium and regional tribal dental programs are promoting water fluoridation where it can be done in a safe and cost-effective manner.
- Increase education and support efforts to increase utilization of dental sealants.
- Increase and promote efforts to reduce the frequency and overall consumption of soda, juice, sugared drinks and diets high in sugar – and to increase water consumption as a healthy alternative to sugared drinks. This should include limiting access to high sugar drinks and foods in public schools.
- Support efforts to increase dental access in the Medicaid/Denali KidCare program.
- Support education and intervention efforts to screen infants for dental decay and early referral for infants

with early signs of early childhood caries (e.g., change Medicaid guidance for a dental referral from age 3 to age 1).

- Support education and training opportunities to increase the number of pediatric dentists in Alaska and/or education of general dentists in treating young children. During the fall of 2005 the Alaska Native Medical Center will start a hospital-based pediatric residency program – this program offers hope to increase the number of pediatric specialists practicing in Alaska.
- Continue to monitor trends in oral disease, especially caries activity, among Alaskan children. During 2005, the Alaska Oral Health Program will be conducting an oral health assessment of kindergarten age children and children enrolled in Head Start.

Intervention Effectiveness

Fluoridation is the most efficient way to prevent dental caries in all children, regardless of socioeconomic status, race, or ethnicity. Water fluoridation can reduce cavities by up to 40%. Providing fluoridated water costs about 50 cents per person per year – much less than the cost of a single filling.¹²

Dental sealants (thin plastic coatings) protect the pit and fissures of teeth from decay. Dental sealants typically cost less than half of the average cost of a one-surface filling.¹³

Capacity

Propriety

Oral health among children and adolescents is an important issue among the Maternal and Child Health (MCH) population. Several national objectives have been set forth to address access, disparities, and general oral health (HP 2010) and the Maternal and Child Health Bureau requires sealant utilization among 3rd graders be monitored and assessed on a yearly basis (NPM #9).

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Although acceptability was not evaluated, given the impact on the quality of life and health, it is an issue that would most likely be accepted among the target population.

Resources

Data sources: Alaska Oral Health Program; Medicaid.

Legality

Not an issue.

References

- ¹ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2003. Rockville, Maryland: U.S. Department of Health and Human Services. 2003.
- ² National Institute of Dental and Craniofacial Research. Oral Health in America: A Report of the Surgeon General – Executive Summary. Rockville, MD: NIDCR. 2000.

- ³ Kaste LM, Selwitz RH, Oldakowski RJ, Brunelle JA, Winn DM, Brown LJ. Coronal Caries in the Primary and Permanent Dentition of Children and Adolescents 1-17 Years of Age: United States, 1988-1991. *Journal of Dental Research*; 75 (Special Issue):631-641. 1996.
- ⁴ Gift HC, Relaine St, Larach DC. The Social Impact of Dental Problems and Visits. *American Journal of Public Health*; 82(12):1663-1668. 1992.
- ⁵ Indian Health Service. An Oral Health Survey of American Indian and Alaska Native Dental Patients: Findings, Regional Differences and National Comparisons. Rockville, MD. Indian Health Service, U.S. Department of Health and Human Services. 1999.
- ⁶ Alaska Department of Health and Social Services. Medicaid Program data. CMS416 utilization reports.
- ⁷ Rarig, A. Unpublished data from Alaska Occupational Licensing. Division of Public Health, Alaska Department of Health and Social Services. 2002.
- ⁸ U.S. General Accounting Office. Oral Health: Dental Disease is a Chronic Problem Among Low-Income populations and Vulnerable Populations. Washington, DC: U.S. General Accounting Office. 2000.
- ⁹ Bruerd B, Jones C. Preventing Baby Bottle Tooth Decay: Eight-Year Results. *Public Health Reports*; 111:63-65. 1996.
- ¹⁰ Bruerd B, Jones C., Krise D. Preventing Baby Bottle Tooth Decay and Early Childhood Caries Among AI/AN Infants and Children. *The IHS Primary Care Provider*; 23(3):37-39. 1997.
- ¹¹ Almeida AG, Roseman MM, Sheff M, Huntington N, Hughes CV. Future Caries Susceptibility In Children With Early Childhood Caries Following Treatment Under General Anesthesia. *Pediatric Dentistry*; 22(4):302-306. 2004.
- ¹² American Association of Public Health Dentistry; American Dental Association, Council of Community Health, Hospital, Institutional and Medical Affairs; and Centers for Disease Control, National Center for Prevention Services, Division of Oral Health. *Community Water Fluoridation: The Number One Way to Prevent Tooth Decay*. Richmond, VA; Chicago, IL; and Atlanta, GA: Authors. 1992.
- ¹³ American Dental Association. 1995 Survey of Dental Fees. Chicago: American Dental Association. July 1996.
- ¹⁴ Touger-Decker R, van Loveren C. Sugars and Dental Caries. *Am J Clin Nutr*; 78:881S-892S. 2003

Data Sources

[†] Hardison JD, Eberling S. 2005. Preliminary data from the Results of the 2004 Oral Health Survey of Alaskan Third Graders. Contract project for the Alaska Oral Health Program, Department of Health and Social Services.

[^] National Health and Nutrition Examination Survey, 2000. Centers for Disease Control and Prevention, Department of Health and Human Services, National Center for Health Statistics. Data in Healthy People 2010 Progress Review Focus Area 21 - Oral Health. Available at: <http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.htm>

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Child and Adolescent Asthma in Alaska

Asthma is among the 10 leading activity limiting chronic conditions in the United States.¹ It is the third leading cause of hospitalization among children under 15 years and the leading cause of chronic illness among children.² Asthma is a significant public health burden and the effort to reduce this burden by promoting respiratory health through better prevention, detection, treatment, and education is a national initiative set forth by Healthy People 2010.¹

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska	Nation	Healthy People 2010 Goal*
Mortality among children less than 5 years of age rate per 1,000,000	0 2000-02†	2.1 2001^	1
Asthma hospitalizations among children less than 5 years of age rate per 10,000	69.3 FY2001‡	56.2 2001^^	25

- There were no asthma deaths known to have occurred in Alaska during 2000-2002.
- The rate of asthma hospitalizations among children less than 5 years of age is higher in Alaska compared to the Nation and nearly 3 times higher than the HP2010 goal.

Severity

Asthma is a major cause of childhood disability and, in some cases, can cause premature death.³ An estimated 4 million children under 18 years old have had an asthma attack in the past 12 months, and many others have undiagnosed asthma. Furthermore, asthma is a major cause of missed school days among school age children, accounting for 14.6 million school days lost in 2002.⁴

Nationally, during 2000 the cumulative incidence over one year of asthma emergency room visits exceeded 60 per 10,000 population. Asthma hospitalizations exceeded 10 per 10,000 population and deaths exceeded 1.5 per 100,000 population.

- The Alaska Hospital Discharge Reporting System reported that during 2001 and 2002 approximately 2.5% to 3.5% of hospitalizations among children less than 15 years of age were due to asthma.
- The overall 4-year cumulative incidence of asthma hospitalizations among Medicaid enrollees less than 20 years of age during 1999-2002 was 4.6 per 10,000

population while 9.9% of children with asthma experienced at least one asthma-related hospitalization, 6.1% experienced at least two, and 2% at least four.⁵ During 2000 to 2002 no asthma deaths were known to have occurred. Emergency room visits for Alaskan children have not been evaluated.

Urgency

Recent national data suggest that the burden of asthma among children may have recently plateaued after several years of increasing.³ However, asthma mortality rates for children younger than age 5 is the exception to this declining trend – with the asthma death rate increasing among this age group from 1.7 per million in 1999 to 2.1 per million in 2001.⁶

- Among US children less than 18 years of age, the current asthma prevalence was 8.7% during 2001 (2001 National Health Interview Survey), the lifetime asthma prevalence was 12.6%, and asthma attack prevalence (i.e., the number with at least one asthma attack during the previous year) was 5.7%.⁴

An evaluation of children less than 20 years of age enrolled in Medicaid during 1999-2002, using a conservative definition of asthma, found a 4-year prevalence of 3.1%.⁵ The prevalence was 40-90% greater for urban residents regardless of Alaska Native status.

- Yearly prevalence increased from 1.0% to 2.2% with increases among all racial and geographic subgroups. Among persons with asthma, yearly hospitalization risk decreased (9.3% to 6.8%) concurrent with an increase in the yearly use of inhaled corticosteroids (50% to 64%).

Disparities

Evaluation of children enrolled in Medicaid showed that within four predominantly Alaska Native census areas that each had a population of at least 5,000 and a regional hospital, the area with resident pediatricians and the most asthma education efforts had a reported 4-year asthma prevalence 5- to 11- fold higher than other areas.⁵ Compared to non-Natives and rural Alaska Natives, urban

Alaska Natives had a greater decrease in hospitalization and greater increase in inhaled corticosteroid use. These findings likely reflect differences in diagnostic and therapeutic practices.

Economic Loss

The national economic cost for asthma in direct health care costs was \$9.4 billion annually (2002 dollars) and indirect cost from lost productivity was \$4.6 billion – a total of \$14 billion in health care costs annually.⁴

Interventions & Recommendations

The etiology of asthma is unknown and thus interventions are directed at patient and provider education and optimizing clinical case management. During the past several years multiple interventions have been developed. The American Lung Association – Alaska Chapter has received a grant to develop an Alaska Asthma Coalition, has implemented public awareness campaigns, and has worked vigorously to achieve passage of a bill allowing children to carry and self-administer asthma medications at school. The Asthma and Allergy Foundation of America – Alaska chapter has been developed and has implemented numerous validated training and educational programs for children with asthma and providers. The Alaska Division of Public Health has begun asthma surveillance.

One of the greatest needs related to asthma is to improve awareness of asthma among health care providers, particularly those working with rural Alaska Natives. It is also likely that patient education will need to be increased in rural areas, particularly if more children are diagnosed.

Educational interventions include patient education programs such as Wee Wheezers, Power Breathing, Asthma Busters, and Asthma Care Training; Train the Trainers for providers; A for Asthma for childcare professionals; and a media campaign. Other than the media campaign, most of the educational efforts have focused on the major population centers.

Other interventions for children have included Champ Camp (a summer camp for children with asthma), and asthma specific booths at local Health Fairs.

Various Alaska Native Corporation Health Centers have implemented best practices standards for asthma care of children. The extent to which this has been done among private practitioners is unknown.

During 2004, the State of Alaska applied for a grant to develop a State Asthma program and was turned down. The State plans to reapply for the next funding cycle if available. However, to compete successfully, the state will need a law in place allowing children to self-administer inhaled bronchodilators and steroids at school.

Intervention Effectiveness

Recent data suggesting that the burden of asthma has plateaued – mortality and hospitalizations due to asthma

have decreased over the last few years – is a possible indication that a higher level of disease management is occurring.⁴ Interventions that focus on management by educating providers and patients about asthma (e.g., increasing asthma awareness and avoiding “attack triggers”) may be among the most effective.

Capacity

Propriety

Child asthma is a significant public health issue among the Maternal and Child Health population. Monitoring and assessing asthma among children and youth falls within the overall mission of the Women’s, Children’s, and Family Health (WCFH) Section. There have been several national initiatives that have been set forth to address reducing the burden of asthma (HP2010) and the Maternal and Child Health Bureau requires that WCFH annually monitor and assess asthma hospitalizations among children (HSCI #1).

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Acceptability was not evaluated.

Resources

Data sources: Alaska Hospital Discharge Database; Alaska Bureau of Vital Statistics; Medicaid; MCH Epidemiology.

Legality

Not an issue.

References

1. U.S. Department of Health and Human Services. Healthy People 2010 2nd ed. With understanding and Improving Health and Objectives for Improving Health: Respiratory Diseases, Focus Area 24. 2 Vols. Washington, D.C.: U.S. Government Printing Office. 2000.
2. American Lung Association. Asthma and Children Fact Sheet. June 2004. Available at: www.lungusa.org/site/pp.asp?c=dvLUK900E&b=44352
3. Akinbami LJ, Schoendorf KC. Trends in Childhood Asthma: Prevalence, Health Care Utilization, and Mortality. *Pediatrics*; 110(2):315-322. 2002.
4. American Lung Association. Trends in Asthma Morbidity and Mortality. April 2004. Available at: [www.lungusa.org/atf/cf/\(7A8D42C2-FCCA-4604-8ADE-7F5D5E762256\)/ASTHMA1.PDF](http://www.lungusa.org/atf/cf/(7A8D42C2-FCCA-4604-8ADE-7F5D5E762256)/ASTHMA1.PDF)
5. Gessner BD, Neeno T. Trends in Asthma Prevalence, Hospitalization Risk, and Inhaled Corticosteroid Use Among Alaska Native and Nonnative Medicaid Recipients Less Than 20 Years of Age. *Ann All Asth Immunol*. In press.
6. U.S. Department of Health and Human Services. Healthy People 2010 Progress Review: Respiratory Diseases. Washington, D.C.: U.S. Government Printing Office. June 2004.

Data Sources

† Alaska Bureau of Vital Statistics, 2000-2002 Data. State of Alaska, DHSS, DPH.

‡ Alaska Medicaid, FY2001 Data. State of Alaska, DHSS, HCS.

^ National Center for Health Statistics (NCHS) Vital Health Statistics System, 2001 Data in: Centers for Disease Control and Prevention, Department of Health and Human Services, National Center for Health Statistics. Data in Healthy People 2010 Progress Review Focus Area 24 – Respiratory Diseases. Available at: <http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.htm>

^{^^} National Center for Health Statistics (NCHS), National Hospital Discharge Data, 2001 Data in: Centers for Disease Control and Prevention, Department of Health and Human Services, National Center for Health Statistics. Data in Healthy People 2010 Progress Review Focus Area 24 – Respiratory Diseases. Available at: <http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa21.htm>

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Child and Adolescent Cancer in Alaska

Cancer is the second leading cause of death in the United States and the leading cause of death in Alaska.^{1,2} Fortunately, cancer is rare among people under age 20. About 77% of all cancers are diagnosed among people age 55 and older and only 1% occurs among people under age 20.³ An estimated 2,500 U.S. children die of cancer annually.

Among people under age 20 years, the most common cancers are leukemia (31% of childhood cancer), malignancies of the central nervous system (17%) and lymphoma (15%).⁴ Non-Hodgkin lymphomas are more common in early childhood while Hodgkin's lymphomas are more common among adolescents.

Seriousness

Healthy People 2010 Targets and National Data

There is no Healthy People 2010 (HP2010) Objective that specifically addresses childhood cancer. Healthy people objectives related to cancer generally address preventable cancers that commonly affect adults (lung, breast, uterine, cervical, colorectal, oropharyngeal, prostate and melanoma). Because childhood cancers make up a small proportion of total cancer mortality, the HP2010 Objective for reducing the overall cancer death rate to less than 160 per 100,000 population will not be affected significantly by reductions in childhood cancer mortality.

- For the 5-year time period 1997-2001, Alaska's overall cancer mortality rate was similar to the U.S. rate – 199 vs. 200 per 100,000 per year, respectively.⁵

Severity

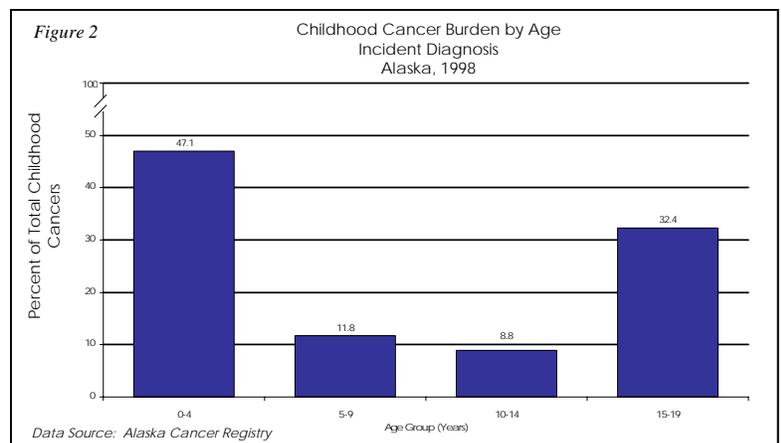
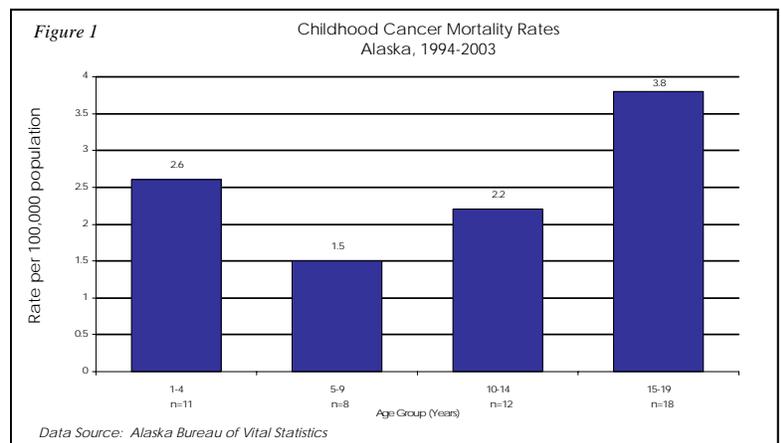
As a cause of death, cancer varies in its relative importance with age. The age of peak cancer incidence among children occurs during the first year of life;⁵ however, cancer is a minor cause of death compared to other events that occur during the perinatal period.⁶ Although the risk of childhood cancer mortality is smallest among children ages 5-9 years, cancer is the second leading cause of death after unintentional injury for this age group. After age ten, cancer is the fourth leading cause of death after unintentional injuries, suicide and homicide.

Over the last decade, Alaskan teenagers age 15-19 years had the highest risk of dying from cancer with an incidence of 3.8 per 100,000 per year (n=18) compared to 1.5 per 100,000 per year for children age 5-9 years (Figure 1).

Urgency

- Cancer affects a very small proportion of Alaskan children and mortality rates have been presumably stable or declining over time.
- In Alaska, childhood cancers made up 1.9% of all diagnosed cancers reported to the Alaska Cancer Registry in 1998. The relative proportion of cancer

incidence varied with age. (Figure 2) Nearly 1 in 5 (21%) of all incident leukemia cases occurred among children age 0-4.⁷



Disparities

There are no documented racial, gender, geographic, or socioeconomic status disparities in the occurrence of childhood cancer in Alaska.

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

The cause of most childhood cancers is unknown. Unlike cancers of adults, childhood cancers are generally not associated with exposure to infectious diseases, environmental toxins or behavioral risk factors. The factors that trigger cancer in children typically arise from non-inherited mutations in the genes of growing cells. Because these mutations occur randomly, there is currently no effective way to prevent them.⁸ Nevertheless, some childhood cancers can be caused by environmental exposures, such as the doubling of the risk of lung cancer associated with daily tobacco smoke exposure.⁹

Many childhood cancers are treatable with early diagnosis; for example, long-term survival for childhood acute lymphoblastic leukemia is now over 90%. Thus, the primary public health intervention to affect cancer morbidity and mortality is likely to be improving access to care. Additional public health interventions include tracking cancer incidence and mortality and potential investigation of identified clusters of pediatric cancer cases.

Intervention Effectiveness

Generally, childhood cancer is not preventable; however, medical treatment is effective in improving survival rates.

Capacity

Propriety

Improving access to care for children falls within the overall mission of the Women's, Children's, and Family Health Section. The Division of Public Health is responsible for measuring and tracking cancer incidence and mortality.

Economic Feasibility

It is feasible to collect and summarize data on childhood cancers in Alaska. Improving access to care will require substantial and systematic changes that will likely be economically burdensome, such as expanding Medicaid eligibility, encouraging more and better trained medical providers to accept employment in rural areas, and ensuring the presence in Alaska of an appropriate number of pediatric oncology specialists.

Acceptability

Acceptability was not evaluated.

Resources

Data Sources: Alaska Cancer Registry; Alaska Bureau of Vital Statistics

Legality

Health Care Providers are required by state statute to report cases of cancer to the Division of Public Health (Alaska Administrative Code 7 AAC 27.011. Authority: AS 18.05.030. AS 18.05.040. AS 18.05.044).

References

- 1 American Cancer Society. What is Cancer? Cancer Reference Guide. February 2005. Available at: http://www.cancer.org/docroot/CRI/content/CRI_2_4_1x_What_Is_Cancer.asp?sitearea
- 2 Jones E, Shattuck K, Mitchell P, Walden S. Alaska Bureau of Vital Statistics – 1999 Annual Report. State of Alaska, DHSS, DPH.
- 3 Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Mariotto A, Feuer EJ, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2002. Table I-11: Age Distribution of Incidence Cases by Site, 197-2001. National Cancer Institute. Bethesda, MD.
- 4 Ries LAG, Smith MA, Gurney JG, Linet M, Tamra T, Young JL, Bunin GR (eds). Cancer Incidence and Survival among Children and Adolescents: United States SEER Program 1975-1995, National Cancer Institute, SEER Program. NIH Pub. No. 99-4649. Bethesda, MD, 1999.
- 5 National Vital Statistics System (NVSS) 1977-2001 Data in: National Cancer Institute (NCI) using Surveillance, Epidemiology, and End Results (SEER) Program. Available at: <http://statecancerprofiles.cancer.gov/>
- 6 Alaska Bureau of Vital Statistics. State of Alaska, DHSS, DPH. Personal communication. 2005.
- 7 Alaska State Cancer Registry, Age Distribution of Invasive Cancers, Alaska 1998. State of Alaska, DHSS, DPH.
- 8 Nemours Foundation. Kid's Health. Childhood Cancer. July 2002. Available at: <http://kidshealth.org/parent/medical/cancer/cancer.html>
- 9 Health Talk. Passive Smoking Puts Children at Risk of Cancer. January 2005. at: http://www.healthtalk.ca/passive_smoking_cancer_012805_90302.php



Child and Adolescent Diabetes in Alaska

More than 13,000 children in the United States are diagnosed with type 1 diabetes every year.¹ Type 2 diabetes, a disease usually seen in people over age 40, is increasingly diagnosed in children and teens – most commonly over the age of 10 and in middle to late puberty.² Research indicates that type 2 diabetes among children increased from fewer than 4% in 1990 to approximately 20% – of the children diagnosed with type 2 diabetes, 85% were obese. The increasing prevalence of childhood obesity and lack of activity among children give concern that type 2 diabetes may be expected to occur in younger pre-pubertal children.³

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2000	Nation 2000	Healthy People 2010 Goal*
Prevalence of clinically diagnosed diabetes among person 18 years of age or older rate per 1,000	38†	61^	25
Prevalence of clinically diagnosed diabetes among adolescents less than 18 years of age rate per 1,000	2.0††	3.0^^	NA

NA The Healthy People 2010 goal for this indicator is not applicable for this age group.

††The prevalence for Alaska is based on an approved Medicaid claim for diabetes or diabetes medication for children 0-19 years of age and is not representative of clinically diagnosed diabetes.

The Healthy People 2010 (HP2010) target for diabetes prevalence in people 18 years of age or older is 25 per 1,000 population. At this time there has been no target set for diabetes prevalence among children.

- According to the Behavioral Risk Factor Surveillance System (BRFSS), the prevalence of diabetes among persons 18 years or older during 2000 was significantly lower in Alaska than the age-adjusted value for the US as a whole – 38 and 61 per 1,000, respectively.⁴
- In 2000, the prevalence of childhood diabetes was slightly lower in Alaska compared to the Nation, however the prevalence for Alaska is based on approved Medicaid claims for diabetes or diabetes medication and not clinically diagnosed diabetes.

Severity

Childhood Diabetes

Increasing childhood obesity has contributed to increasing childhood diabetes. Diabetes in childhood, and particularly poorly managed diabetes, is associated with adult diabetes,

early death, vascular disease including heart disease and stroke, renal damage, blindness and other problems. Diabetes is the leading cause of adult blindness, lower limb amputations, and kidney failure.

Gestational Diabetes

Gestational (or pregnancy-related) diabetes can be associated with fetal malformations, neonatal hypoglycemia, and other complications. Compared to Alaskan mothers with no diabetes, Alaskan mothers with preexisting or gestational diabetes had an increased risk of a variety of complications including pregnancy-associated hypertension (2.5- and 2-fold, respectively), eclampsia (5.6 and 2-fold), cardiac disease (6- and 1.8-fold), and renal disease (24- and 2-fold).⁵ Furthermore, mothers with preexisting or gestational diabetes were more likely to have an amniocentesis, induction of labor, and deliver by caesarian section. Infants born to mothers with preexisting and gestational diabetes had an increased risk of cardiac malformations (16- and 4-fold, respectively), other circulatory or respiratory malformations (24- and 2-fold), assisted ventilation >30 minutes (4.4- and 1.3-fold), and to be born at <37 weeks gestation (3-fold increased risk associated with preexisting diabetes).⁵

Urgency

Childhood Diabetes

- Among children 0-19 years of age enrolled in Medicaid during 1998-2003, the yearly prevalence of diabetes (based on an approved claim for diabetes or a diabetes-related medication) increased from 151 to 299 per 100,000. Figure 1.
- Diabetes prevalence increased substantially over time for all age groups, but particularly among older children. Figure 1

Gestational Diabetes

Based on an analysis of birth certificates from 1990-99 in Alaska, 0.2% (249) of live births occurred to women with pre-existing diabetes and 2.3% (2,445) to women who developed gestational diabetes.⁵ Diabetes risk increased

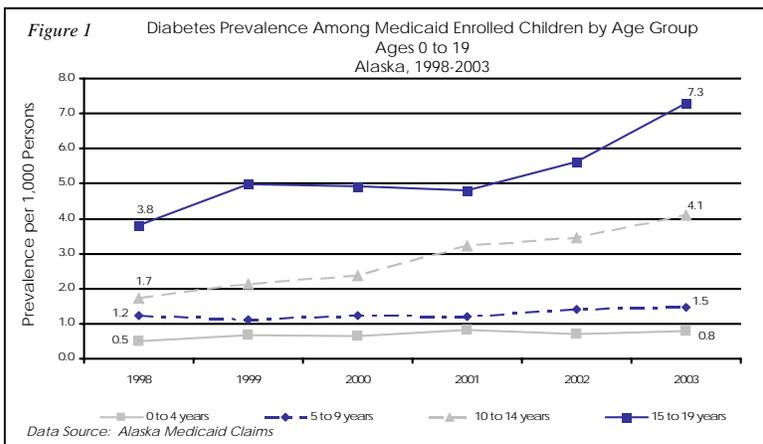
substantially by 5-year maternal age group. The prevalence of pre-existing diabetes increased from 0.1% among the 15-19 year age group to 0.8% among the 40 years or older age group; the prevalence of gestational diabetes increased from 0.9% to 5.5%, respectively for these age groups.

Disparities

Childhood Diabetes

Studies outside of Alaska have shown that persons with diabetes of lower socio-economic status experience a higher risk of complications than persons of higher socio-economic status.⁶

- Among Alaskan children enrolled in Medicaid, non-



Natives are at substantially increased risk compared to Alaska Natives. The yearly prevalence of diabetes among Alaska Natives during 1998-2003 increased from 83 to 203 per 100,000 while the yearly prevalence of diabetes among non-Natives increased from 224 to 424 per 100,000.

Gestational Diabetes

- Alaska Native and white mothers of newborns had approximately the same prevalence of preexisting or gestational diabetes. However, black and Asian/Pacific Islander mothers had a risk about 2 times higher for pre-existing diabetes while gestational diabetes was similar for all racial groups.⁵

Economic Loss

The economic impact of diabetes among children has not been evaluated. Among Medicaid enrolled persons of all ages – including those less than 20 years of age – expenditure by year increased during 2001-2003 from \$16,000 to \$22,000 per person with diabetes and from \$4,800 to \$6,300 per person without diabetes. The per capita expenditure for persons less than 20 years of age was small: less than \$20 for persons under 5 years of age to \$85 for persons 15-20 years of age.

Analysis of the economic loss associated with pregnancy-related diabetes has not been conducted in Alaska. Given the association of diabetes with a variety of complications that effect healthy years of life for the mother and child,

maternal medical complications, delivery method, and infant medical complications the costs associated with diabetes are likely to be substantial.

Interventions & Recommendations

Specific interventions for childhood and pregnancy-associated diabetes include treatment programs, education, and assuring access to care for individuals with disease. Interventions to prevent type 1 diabetes are not known. The greatest need is for interventions to prevent childhood onset type 2 diabetes; such as the promotion of programs that decrease obesity, promote an active lifestyle, and encourage a healthy diet. These interventions are addressed more completely in the Fact Sheets ‘Child and Adolescent Overweight and Obesity in Alaska’, ‘Child and Adolescent Physical Activity in Alaska’, and ‘Child and Adolescent Nutrition in Alaska’ as a part of this series.

Intervention Effectiveness

Findings from the Diabetes Prevention Program, a randomized clinical trial of Americans that were at high risk of developing type 2 diabetes, showed that lifestyle changes in diet, exercise, and weight loss can prevent or delay type 2 diabetes in those at high risk. Participants of the study that made these lifestyle changes reduced their risk of type 2 diabetes by 58%.⁷

Effectiveness of the interventions focusing on overweight and obesity, nutrition, and physical activity are addressed in their respective Fact Sheets (see above).

Capacity

Propriety

The Section of Epidemiology has a diabetes program but it does not specifically address childhood diabetes. Moreover, much of the prevention effort will need to be multi-agency as it relates to a broad spectrum of disciplines, including Public Health, Education, Parks and Recreation, and others. Pregnancy-associated diabetes is primarily a clinical management and education issue.

Economic Feasibility

The economic feasibility depends on the specific intervention and the extent of its implementation.

Acceptability

The primary contributing factor to childhood diabetes is obesity, and there is a growing consensus that this problem must be addressed.

Resources

Alaska Obesity Prevention and Control Program

Data Sources: Alaska Youth Risk Behavior Survey (YRBS) can be used to identify and monitor risk factors associated with diabetes such as overweight, nutrition, and physical activity; Medicaid Database; Alaska Bureau of Vital Statistics.

Legality

Not an issue.

References

- ¹ Centers for Disease Control and Prevention. National Diabetes Education Program. Diabetes in Children and Adolescents. Fact Sheet. 2005.
- ² American Academy of Pediatric. Rise in Childhood Diabetes Linked to Increase in Type 2 Diabetes. News Release. February 2000.
- ³ American Diabetes Association. Type 2 Diabetes in Children and Adolescents. Diabetes Care; 23(3):381-389. March 2000.
- ⁴ Alaska Division of Public Health, Section of Epidemiology. Diabetes in Alaska, 1991-2000: Results from the Behavioral Risk Factor Surveillance System. Epidemiology Bulletin, Recommendations and Reports; 5(4). 2001.
- ⁵ Alaska Division of Public Health, Section of Epidemiology. Diabetes in Pregnancy, Alaska, 1990-1999. Epidemiology Bulletin, Recommendations and Reports, 2001, Vol. 5, No. 3.
- ⁶ U.S. Department of Health and Human Services. Healthy People 2010: Focus Area 5 – Diabetes. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.
- ⁷ Knowler WC, Barrett-Connor E, Fowler SE. Reduction in the Incidence of Type 2 Diabetes with Lifestyle Intervention or Metformin. New England Journal of Medicine; 346(6):393-403. February 2002.

Data Sources

[†] Alaska Behavioral Risk Factor Surveillance System (BRFSS), 2000 Data in: Alaska Division of Public Health, Section of Epidemiology. Diabetes in Alaska, 1991-2000: Results from the Behavioral Risk Factor Surveillance System. Epidemiology Bulletin, Recommendations and Reports; 5(4). 2001.

[‡] Alaska Medicaid Claims: 2000 Data. State of Alaska, DHSS, HCS.

[^] Behavioral Risk Factor Surveillance System (BRFSS), 2000 Data in: Alaska Division of Public Health, Section of Epidemiology. Diabetes in Alaska, 1991-2000: Results from the Behavioral Risk Factor Surveillance System. Epidemiology Bulletin, Recommendations and Reports; 5 (4). 2001.

^{^^} National Center for Health Statistics (NCHS) National Health Interview Survey (NHIS), 2000 Data in: Centers for Disease Control and Prevention, Department of Health and Human Services, National Center for Health Statistics. Data in Healthy People 2010 Progress Review Focus Area 5 – Diabetes. Available at: <http://www.cdc.gov/nchs/ppt/hpdata2010/focusareas/fa5.htm>

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Women's, Children's, & Family Health



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Child and Adolescent Overweight and Obesity in Alaska

Since the 1970s, the prevalence of obesity has more than doubled for preschool children ages 2-5 years and adolescents ages 6-11 years, and it has more than tripled for children ages 12-19 years.¹ A recent report from the Institute of Medicine estimates that approximately nine million children over six years of age are currently obese.²

Although poor eating habits and lack of activity are the primary causes of overweight and obesity, the factors contributing to the overweight epidemic are complex and include genetic, metabolic, behavioral, environmental, cultural, and socioeconomic factors. Children with overweight or obese parents are more likely to become overweight or obese adults. A child with one overweight parent is 3 times more likely to become an overweight adult and a child with both parents overweight is 10 times more likely to become an overweight adult. Furthermore, rapid infant weight gain during the first year of life increases the risk of adult overweight and obesity, particularly for infants born small for gestational age.³

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 98-03†	Nation 99-02^	Healthy People 2010 Goal
Percentage of children and adolescents ages 6-11 years that are overweight or obese			
Boys	19%	16.9%	5%
Girls	16%	14.7%	5%
Percentage of children and adolescents ages 12-19 years that are overweight or obese			
Boys	19%	16.7%	5%
Girls	17%	15.4%	5%

Note: Data for Alaska represents the Anchorage School District only.

- The prevalence of overweight and obesity among children in the Anchorage school district is more than 3 times higher than the Healthy People 2010 goal.
- The prevalence of overweight and obesity among these Alaskan students was similar to national prevalence estimates, however, slightly higher among Alaskan youth.

Severity

Overweight children have a higher rate of low self-esteem, type 2 diabetes, sleep apnea, bone and joint problems, and gall bladder disease.⁴

Adolescent obesity (and high non-HDL cholesterol levels) is an independent risk factor for adult atherosclerosis and also operates by contributing to other risk factors such as diabetes and hypertension.

Urgency

In Alaska, the Anchorage School District and the Alaska Division of Public Health assessed the prevalence of overweight among 41,261 children enrolled in the Anchorage School District during 1998-2003.⁵

- Over the five-year time period, 2% of students were underweight, 62% were at a normal weight, 18% were at-risk for becoming overweight, and 18% were overweight.
- More than one-third of the students assessed were overweight or at-risk of overweight.
- Of students entering kindergarten or first grade, 32% were overweight or at-risk for becoming overweight.

Data from the 20003 Alaska Youth Risk Behavior Survey (YRBS) showed similar findings for the prevalence of overweight among Alaska high school students in grades 9-12.⁶

- Among Alaskan high school students, 11% were overweight and 14% were at-risk of becoming overweight – combined, 1 in 4 Alaskan youth in grades 9-12 were at-risk or already overweight.⁶
- Approximately 2 in 5 high school females in Alaska described themselves as slightly or very overweight and 3 in 5 were trying to lose weight.⁶
- To lose weight or to keep from gaining weight, nearly 40% of Alaskan high school students ate less food or foods low in fat; 59.9% exercised; 9.1% went without eating for 24 hours or more; 6.3% took diet pills, powders, or liquids; and 5.1% vomited or took laxatives.⁶

Disparities

National data indicate that overweight and obesity has increased across all subgroups of the population, however, it is more common among minority groups. Furthermore, the proportion of adolescents from poor households who are overweight or obese is twice that of adolescents from middle- and high-income households.¹ Data from the Anchorage School District showed similar findings. Students of a race or ethnic background other than white were more likely to be overweight or at-risk for becoming overweight than white students.⁵

Data from the 2003 Alaska YRBS indicated that the prevalence of overweight was significantly associated with sex; however, at-risk of overweight did not differ between males and females.⁶

- Although Alaskan high school males were significantly more likely to be overweight than females (13.7% and 8.1%, respectively), females were twice as likely to describe themselves as overweight and twice as likely to be trying to lose weight as males.⁶

Economic Loss

According to a report from the Institute of Medicine, the obesity-associated annual hospital costs for children and youth more than tripled over two decades, increasing from \$35 million in 1979-1981 to \$127 million in 1997-1999. After adjusting for inflation and converting to 2004 dollars, the national healthcare expenditures related to obesity and overweight in adults alone range from \$98 billion to \$129 billion annually.²

Interventions & Recommendations

The AAP recommends parent's encouragement of healthy eating during toddler and early childhood years, increased activity, and decreased television viewing. Furthermore, the AAP recommends exclusive breastfeeding for the first six months of life and continued breastfeeding for one year, which may prevent obesity later in life.³

The US Centers for Disease Control and Prevention has recently reviewed the literature on interventions to increase the amount of physical activity among the US population.⁷ They strongly recommend that large-scale, high-intensity communitywide campaigns with sustained visibility be implemented. Components of previous successful interventions have included public service messages in a variety of media (television, radio, newspaper, and movie trailers), support and self-help groups, physical activity counseling, risk factor screening and education, community events, and creation of enhanced and easily accessed exercise areas such as community walking trails. Other interventions that were strongly recommended included individually adapted health behavior change programs, social support interventions in community settings, and school-based physical education.

Many schools in Alaska do not require physical education as part of the routine curriculum and many offer unhealthy food in cafeterias or sodas from soft drink dispensers, primarily to raise money for under-funded activities. The following data from the 2003 Alaska YRBS support these findings.⁶

- Approximately 18% of Alaska high school students (regardless of weight status) reported participating in daily school physical education.⁶
- Less than 20% of high school students consume the recommended 5 servings of fruits and vegetables daily.⁶

Additional factors that may contribute to obesity include lack of awareness and mandatory reporting of health risks associated with food at many fast-food restaurants and increased time spent in sedentary activities such as television viewing, video gaming, and computers.

Intervention Effectiveness

Programs to reduce obesity have met with limited success as sustained weight reduction requires fundamental behavioral changes to reduce excess caloric intake and increase physical activity. For example, predictors of successful weight reduction include strong support from family and peers, consideration of psychological factors associated with obesity, young age (6 to 12 years) at the onset of intervention, frequent follow-up and reinforcement, and incorporation of regular exercise into the weight reduction program.^{7,8}

Capacity

Propriety

Child and adolescent overweight and obesity is an important issue for Maternal Child Health. The monitoring of overweight and obesity among youth is an issue that falls within the overall mission of the Women's, Children's, and Family Health Section and decreasing overweight among youth is a national initiative (HP2010).

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Acceptability was not evaluated.

Resources

Alaska Obesity Prevention and Control Program; Alaska Youth Risk Behavior Survey (YRBS) can be used to monitor the prevalence of overweight and obesity, identifying behaviors related to overweight and obesity, and identifying high risk groups.

Legality

Not an issue.

References

- ¹ Centers for Disease Control and Prevention. National Center for Health Statistics, National Health and Nutrition Examination Survey: NHANES 1999-2000. Prevalence of Overweight among U.S. Children and Adolescents.
- ² Institute of Medicine. Committee on Prevention of Obesity in Children and Youth. Preventing Childhood Obesity: Health in the Balance, 2005. Food and Nutrition Board, Board on Health Promotion and Disease.
- ³ American Academy of Pediatrics. Prevention of Pediatric Overweight and Obesity. *Pediatrics*; 112(2):424-430. August 2003.
- ⁴ US Dept Health and Human Services. Overweight and Obesity: Health Consequences. Rockville, MD: US Department of Health and Human Services, Public Health Service, Office of the Surgeon General.
- ⁵ Peterson E, Utermohle C, Green T, Middaugh JP. Prevalence of Overweight among Anchorage Children: A Study of Anchorage School District Data: 1998-2003. *State of Alaska Epidemiology Bulletin*; 8(9). 2004.
- ⁶ Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003. *MMWR*; 53(SS-2). May 2004.
- ⁷ Centers for Disease Control and Prevention. Increasing Physical Activity a Report on Recommendations of the Task Force on Community Preventive Services. *MMWR*; 50(RR-18). 2001
- ⁸ Alaska Division of Public Health, Section of Epidemiology. The Burden of Overweight and Obesity in Alaska. April 2003.

Data Sources

[†] Anchorage School District 1998-2003 Data in: Peterson E, Utermohle C, Green T, Middaugh JP. Prevalence of Overweight among Anchorage Children: A Study of Anchorage School District Data: 1998-2003. *State of Alaska Epidemiology Bulletin*; 8(9). 2004.

[^] National Health and Nutrition Examination Survey, 1999-2002 Data in: Centers for Disease Control and Prevention. Health United States, 2004.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

Notes

Using age and sex specific reference data from the 2000 CDC BMI-for-age growth charts, children and youth can be categorized as acceptable, underweight, at risk of overweight, or overweight. At age- and sex-specific BMI values below the 5th percentile, children may be underweight. From the 5th up to the 85th percentile, they may have an acceptable weight. From the 85th to 95th percentile, they are at risk of being overweight. At the 95th percentile and above, children and adolescents are classified as overweight.



Child and Adolescent Physical Activity in Alaska

Obesity in children is at epidemic proportions in the United States. According to the National Health and Nutrition Examination Survey (NHANES), the prevalence of obesity among children ages 6-19 years has risen from 4% to 15% over the past 30 years.^{1,2} Obesity in childhood is associated with later heart disease, diabetes, hypertension, arthritis, and poor mental health. Furthermore, as rates of overweight and obesity increase, the prevalence of type 2 diabetes among children and adolescents has become increasingly prevalent.³ Two broad interventions exist to combat obesity: change in diet and physical activity. In addition to its effects on obesity, physical activity is also associated independently with decreased risk of cardiovascular disease, improved mental health, and improved muscle function and physical performance.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003†	Nation 2003^	Healthy People 2010 Goal*
Proportion of adolescents who engage in moderate physical activity for at least 30 minutes on ≥ 5 of the previous 7 days	28.2%	24.7%	35%
Proportion of adolescents who engage in vigorous physical activity that promotes cardio-respiratory fitness ≥ 3 days/week for ≥ 20 minutes/occasion	67.8%	62.6%	85%
Proportion of adolescents who participate in daily school physical education	18.2%	28.4%	50%

- The proportion of Alaskan adolescents that engaged in moderate or vigorous physical activity for the recommended minutes/days per week was slightly higher compared to youth nationally; but significantly lower than the Healthy People 2010 (HP2010) goals.
- The proportion of Alaskan adolescents that participate in daily school-based physical education is lower than that of their peers nationally and less than half of the HP2010 goal for this measure.

Severity

Lack of exercise among school children contributes substantially to childhood obesity.⁴ From 1998-2003, 18% of all Anchorage School District students were at risk for becoming overweight and 18% were overweight.⁵ This outcome occurs early: of children entering kindergarten and 1st grade, 14% were overweight and 18% were at-risk for overweight. Furthermore, physically inactive children are more likely to become physically inactive adults. Currently, 30% of the Alaska adult population report that they engage in regular, moderate activity while 18% engage in regular, vigorous activity.

Urgency

- Among Anchorage School District children, the mean body mass index does not appear to have increased from the 1998-1999 to the 2002-2003 school year. Although rates of overweight appear stable during this time period, approximately 1 in 6 were at risk of becoming overweight and 1 in 6 were overweight.⁵
- Data from the Alaska Behavioral Risk Factor Surveillance System (BRFSS) found substantial increases in adult overweight or obesity prevalence from 1991-2002 – an increase of 27%, from 49% to 62%, respectively.⁵
- More than 1 in 4 (27.9%) Alaskan high school students in grades 9-12 do not participate in a sufficient amount of physical activity.[†]
- Among Alaskan high school students, more than one-fourth reported watching 3 or more hours of television per day.[†]

Disparities

In general, race, education, income, and disability status are associated with physical activity. Persons with lower levels of education and income and those with disabilities are more likely to be less active in their leisure time.

- In Alaska, the 2000 BRFSS found that Alaska Natives and Asian/Pacific Islanders are less likely to report adequate physical activity than other groups. This is reflected in an increased risk of obesity among non-white children in the Anchorage school district, a disparity that is most pronounced among females.⁶
- Among Alaskan high school students, females were significantly more likely to participate in an insufficient amount of physical activity than males (34.8% and 21.4%, respectively).[†]
- Among Alaskan high school students, males were significantly more likely to be enrolled in physical

education and do strength training exercises than females.[†]

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

The US Centers for Disease Control and Prevention and the American Academy of Pediatrics have called for schools to be leaders in the effort to control childhood obesity by establishing policies to incorporate comprehensive daily physical education and comprehensive health education for children in grades kindergarten through 12.^{6,7} In Alaska, by contrast, a single year of high school physical activity is required for graduation and there are no requirements for physical activity in earlier grades.

Additional interventions include making exercise easier outside of school, particularly for disadvantaged children, by increasing the number of miles of walkways and bikeways and supporting community recreation centers and sites such as baseball and soccer fields and ski trails. The miles of walkways and bikeways is a developmental Healthy Alaskans 2010 measure. Recently, the State of Alaska has spent more funds per capita on bicycle and pedestrian facilities than any other state.

Other activities include development of a physical activity promotion resource kit by Take Heart Alaska, development of public service announcements, and development of a statewide physical activity coalition.

Intervention Effectiveness

The links among physical activity, fitness and health are well established scientifically and medically. However, studies assessing the effectiveness of interventions that promote physical activity are not well documented.

Capacity

Propriety

The Division of Public Health will play an important role in providing data on physical activity and the consequences of lack of physical activity through programs such as BRFSS and the Youth Risk Behavior Survey as well as special surveys like the recently completed evaluation of obesity among Anchorage School District children. The Section of Epidemiology, rather than Women's, Children's, and Family Health (WCFH) currently houses BRFSS and YRBS and its chronic disease unit has taken the lead in addressing obesity. If these roles change, WCFH would assume more responsibility for this topic.

Economic Feasibility

Provision of data to monitor trends in physical activity and obesity is well within the reach of the Division of Public Health as it only requires continued support of BRFSS, YRBS, and periodic additional evaluations. The economic feasibility of the broader role of the State in supporting physical activity through funding bike and pedestrian

facilities as well as recreation sites will depend on a host of factors beyond the control of Public Health.

Acceptability

Increased physical activity is a well-accepted goal; however, debate exists over how to achieve this. Some resistance to required school physical education programs exists because this will either lengthen the school day or take time away from academic classes. Others question government's role in funding development of trails and walkways as evidenced by the recent debate over funding of baseball fields and the extension of the coastal trail in Anchorage.

Resources

Take Heart Alaska; Alaskans Promoting Physical Activity; Youth Risk Behavior Survey.

Legality

Not an issue.

References

- ¹ Prevalence of Overweight among Children and Adolescents: United States, 1999-2000. Available at: <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm>
- ² National Center for Health Statistics. Health, United States, 2002. Table 71. Overweight Children and Adolescents 6-19 Years of Age, According to Sex, Age, Race, and Hispanic Origin: United States, selected years 1963-65 through 1999-2000. Available at: <http://www.cdc.gov/nchs/products/pubs/pubd/hus/tables/2002/02hus071.pdf>
- ³ Rosenbloom AL, Joe JR, Young RS, Winter WE. Emerging Epidemic of Type 2 Diabetes in Youth. *Diabetes Care*; 22(2):345-354. 1999.
- ⁴ Alaska Department of Health and Social Services. The Burden of Overweight and Obesity in Alaska. April 2003.
- ⁵ Alaska Division of Public Health. Prevalence of Overweight among Anchorage Children. *Epidemiology Bulletin Recommendations and Reports*; 8(9). 2004
- ⁶ Centers for Disease Control and Prevention. Guidelines for School and Community Programs to Promote Lifelong Physical Activity among Young People. *MMWR*; 46(RR-6):1-36. 1997
- ⁷ American Academy of Pediatrics, Committee on Sports Medicine and Fitness and Committee on School Health: Physical Fitness and Activity in Schools. *Pediatrics*; 105:1156-1157. May 2000.

Data Sources

[†] Alaska Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003. *MMWR*; 53(SS-2). May 2004.

[^] Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003. *MMWR*; 53(SS-2). May 2004.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.

Notes

Moderate physical activity is defined as at least 30 minutes of physical activity for ≥5 days per week. These types of activities include fast walking, slow bicycling, skating, pushing a lawn mower, or similar activity that does not make you breathe hard or sweat.

Vigorous physical activity is defined as physical activity that promotes cardio-respiratory fitness ≥ 3 days per week for ≥ 20 minutes per session. These types of activities include basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activity that makes you breathe hard and sweat.

Using age and sex specific reference data from the 2000 CDC BMI-for-age growth charts, children and youth can be categorized as acceptable, underweight, at risk of overweight, or overweight. At age- and sex-specific BMI values below the 5th percentile, children may be underweight. From the 5th up to the 85th percentile, they may have an acceptable weight. From the 85th to 95th percentile, they are at risk of being overweight. At the 95th percentile and above, children and adolescents are classified as overweight.



Child and Adolescent Nutrition in Alaska

Good nutrition and healthy eating habits beginning at a young age are essential for proper growth and development and establishing healthy eating behaviors that are more likely to continue into adulthood. Healthy eating behaviors help prevent childhood and adolescent health problems such as overweight, eating disorders, dental carries, and iron deficiency anemia.¹ Furthermore, good nutrition among children and adolescents helps prevent serious health problems in adulthood, including heart disease, cancer, and stroke – the three leading causes of death among adults.¹

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003†	Nation 2003^	Healthy People 2010 Goal'
Percentage of high school student's grades 9-12 who consume at least 5 daily servings of fruits and vegetables	16.1%	22.0%	30%
Percentage of high school students that consume ≥3 glasses of milk per day	11.9%	17.1%	---

---This indicator is not a Healthy People objective.

- The Healthy People 2010 goal for consuming the recommended amounts of fruits and vegetables was nearly 2 times higher than Alaska's rate among high school students.
- Daily consumption of the recommended servings of fruits and vegetables and milk among high school students is lower in Alaska compared to the US as a whole.
- Nationally, 78% of high school students do not eat the recommended five daily servings of fruits and vegetables.

Severity

Consumption of calcium, fruits and vegetables among children is inadequate. Adequate calcium intake is essential for developing peak bone mass and preventing osteoporosis. Fruits and vegetables are more expensive in Alaska, especially in rural and remote areas, and are frequently lacking in the diets of lower income children and adolescents.

A poor diet increases risk for heart disease, some types of cancer, stroke, type 2 diabetes and osteoporosis and promotes the development of risk factors for these diseases, such as obesity, high blood pressure and high cholesterol.

Urgency

- Over the last two decades, the prevalence of overweight among children ages 6-11 years has more than doubled, increasing from 7% during 1980 to 15% during 2000. Overweight among adolescents ages 12-19 years has tripled during the same time period – from 5% to 15%.²
- Nationally, 9% of girls ages 12-15 and 11% of girls ages 16-19 years have iron deficiency anemia.³
- Nationally, only 13% of girls and 36% of boy's ages 12-19 years have adequate calcium intakes.⁴

Disparities

Iron deficiency anemia is a serious problem among Alaska Native children and other minorities in Alaska. The prevalence of iron deficiency among children in rural Alaska is approximately 10 times US standards.⁶

Nationally, boys (ages 12-19 years) were nearly 3 times more likely to have adequate calcium intakes than girls.

- Among high school students in Alaska, boys were 2 times more likely than girls to report having consumed three or more glasses of milk per day during the 7 days preceding the survey.[†]

Economic Loss

According to a report from the Institute of Medicine, the obesity-associated annual hospital costs for children and youth more than tripled over two decades, increasing from \$35 million during 1979-1981 to \$127 million during 1997-1999. After adjusting for inflation and converting to 2004 dollars, the national healthcare expenditures related to obesity and overweight in adults alone ranged from \$98 billion to \$129 billion annually.⁵

Interventions & Recommendations

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a supplemental food and nutrition program for low-income pregnant, breastfeeding, and postpartum women, and infants and young children

who are at a nutritional risk. The purpose of the WIC Program is to prevent health problems and to improve the health of participants during critical times of growth and development. The WIC Program provides nutrition education, access to health care services, referrals to health and other social services and vouchers for supplemental foods. The food vouchers list the types and quantities of WIC foods that are consistent with the participant's nutritional needs.

The classroom can be used to educate students about healthful eating patterns with an emphasis on developing the behavioral skills needed for planning, preparing and selecting healthy foods, and on creating social support for choosing and eating healthy foods. The food services environment supports healthy eating patterns by offering healthy, balanced meals and limiting access to less healthy choices, and serves as a learning laboratory for the classroom. Parent involvement supports and reinforces messages learned at school in the home environment. Schools could further promote healthy nutrition by eliminating unhealthy alternatives from school lunches and removing soda and juice vending machines from school property.

Alaska received funding from the USDA Team Nutrition grant in 2002 to help support healthier changes within the school environment.

The Obesity Prevention and Control Program at the Alaska Department of Public Health can provide more information about these programs and other nutrition education programs for children and youth and may provide support for program implementation.

Intervention Effectiveness

With funding from the Centers for Disease Control and National Institute of Health, nutrition interventions have been developed, tested and proven effective in helping children and adolescents develop and maintain healthy eating patterns.

Capacity

Propriety

Child and adolescent nutrition is an important issue for Maternal Child Health particularly around overweight and obesity among youth. The monitoring of overweight and obesity among youth is an issue that falls within the overall mission of the Women's, Children's, and Family Health Section. Increasing the consumption of fruit and vegetables and decreasing overweight among youth are national initiatives (HP2010).

Economic Feasibility

Recent changes in the education and graduation standards for Alaska have decreased the requirements for health education including nutrition education. Financial challenges for schools increase the pressure to allocate health education resources to other areas. Additionally, inadequate funding has encouraged some school districts to allow soda and juice vending machines on school property.

Acceptability

Acceptability of this issue was not evaluated.

Resources

WIC is working on the design of nutrition reports that will provide the data for the population of children WIC serves, utilizing the Body Mass Index growth charts starting at age 2 to 5 years.

Alaska Youth Risk Behavior Survey (YRBS) can be used to monitor the prevalence of youth behaviors that influence health.

Legality

Not an issue.

References

- 1 Centers for Disease Control and Prevention. Guidelines for School Health Programs to Promote Lifelong Healthy Eating. MMWR: 45(RR-9):1-33. June 1996.
- 2 Centers for Disease Control and Prevention. National Center for Health Statistics, National Health and Nutrition Examination Survey: NHANES 1999-2000. Prevalence of Overweight among U.S. Children and Adolescents.
- 3 Polhamus B, Dalenius K, Thompson D, Scanlon K, Borland E, Smith B, Grummer S.L. Pediatric Nutrition Surveillance 2002 Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. 2004.
- 4 Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 1999.MMWR: 49(SS-5). June 2000.
- 5 Institute of Medicine. Committee on Prevention of Obesity in Children and Youth. Preventing Childhood Obesity: Health in the Balance, 2005. Food and Nutrition Board, Board on Health Promotion and Disease.
- 6 Centers for Disease Control and Prevention. Iron Deficiency Anemia in Alaska Native Children—Hooper Bay, Alaska, 1999. MMWR: 48: 714-6. 1999.

Data Sources

† Alaska Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53(SS-2). May 2004.

^ Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53(SS-2). May 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Child Maltreatment in Alaska

Child maltreatment can be neglect, physical abuse, sexual abuse, or emotional abuse. Abuse and neglect are two of the most serious issues facing children, with a high incidence, frequently severe acute physical effects and substantial risk for life-long behavioral and emotional effects.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003 [†]	Nation 2003 [^]	Healthy People 2010 Goals [*]
Maltreatment (substantiated or reported) of children less than 18 years of age rate per 1,000 population	42.2	12.4	10.3
Fatality due to maltreatment among children less than 18 years of age rate per 100,000	1.22 [†]	1.98 [†]	1.4

[†] Fatality is reported as a three-year average for both Alaska and the Nation. The estimate is for the time period 2001-2003.

- The rate of substantiated or reported maltreatment for Alaskan children is more than 4 times the Healthy People 2010 goal and nearly 3.5 times the National rate.
- For the three-year period 2001-2003, Alaska has achieved the HP2010 goal for child fatality due to maltreatment.

Severity

Studies in Alaska have not documented the extent of outcomes associated with abuse. However, hospitalization and death for infants experiencing abuse are common.¹ Many children eventually are placed in foster care. Numerous previous studies have documented severe long-term effects of child abuse including increased risk of criminal behavior, unintended pregnancies, adult homelessness, substance use, suicide, and sexually transmitted diseases.²⁻⁷

Shaken-baby syndrome (SBS) is a form of child abuse that occurs when an infant is violently shaken – affecting between 1,200 and 1,600 children every year. Approximately 25%-30% of SBS victims die from their injuries, while nonfatal injuries include varying degrees of visual impairment, motor impairment, and cognitive impairment.⁸

Urgency

- During 1994-2000, 10,442 to 11,961 children less than 18 years of age had a report of harm. Of these, approximately 50-60% of reports of harm were for neglect, 25-30% for physical abuse, 8-15% for sexual abuse, and the remainder for mental injury and abandonment.⁹
- The number of substantiated reports of harm has varied from 3,864 to 5,829 during the same time period, with incidences of 16 to 23 per 1,000 per year.⁹
- Previous detailed studies have found that Alaska has one of the highest documented infant physical abuse incidences reported worldwide at 4.6 per 1000 live births, with a hospitalization or fatality incidence of 1.0 per 1,000 live births.¹ Moreover, this study determined that abuse is likely substantially underreported by providers.
- A variety of ancillary outcomes reflect poorly on the ability of Alaskans to protect children from harm. For example, the national standard for recurrence of maltreatment is less than 6.1%, while Alaska reported at least 23% recurrence during 1998-2000. The incidence of child abuse and neglect among children in foster care ranged from 13-19 per 1,000 per year compared to a national standard of 0.57 per 1,000.¹⁰

Disparities

- During 1998-2000, 50-55% of Alaskan children with a recurrence of maltreatment were Alaska Native compared to 34-36% for white children.⁹
- During a study of Alaskan infant physical abuse, the following subgroups were identified as being at particular risk: infants born as the product of a multiple gestation birth, at low birth weight, to young or less educated mothers or fathers, or to black, unmarried, or substance using mothers.¹ Previous studies have documented an association between abuse and poor mental health,¹¹ substance use,¹² domestic violence,¹³ minority and low-income status,¹⁴ lack of a father in the household,¹⁴ as well as some of the risk factors identified in Alaska.¹⁵

- Pacific Islander, Alaska Native or American Indian, and non-Hispanic black children (with rates of 21.4, 21.3, and 20.4 per 1,000, respectively) had higher rates of child maltreatment than non-Hispanic white, Hispanic, or Asian children – with rates of 11.0, 9.9, and 2.7 per 1,000, respectively.¹⁶
- Nationally, child victims that were reported with a disability were 51% more likely to experience recurrence of abuse than children without a disability.¹⁶

Economic Loss

Total economic losses span generations and are virtually impossible to accurately estimate. National estimates (in 1999 dollars) for direct economic losses related to hospitalization have been estimated at \$40,000 per case for abusive head trauma¹⁸ and \$19,000 per case for any child abuse and neglect¹⁹.

Interventions & Recommendations

Given the lack of proven effective interventions, consistently effective interventions to prevent child abuse are not known. Intensive home visitation programs have shown some success, but not among all populations.²⁰ Johns Hopkins University School of Medicine and the Alaska Department of Health and Social Services conducted a five-year randomized study of Alaska's home visitation program, called Healthy Families Alaska. This study found no effect of home visitation on subsequent reports of harm during the child's first two years of life.

Addressing some of the antecedents of child abuse might prevent future cases. For example, mental health programs for men and women of child bearing age, programs to decrease domestic violence, substance abuse prevention and treatment programs, economic stimulation to improve economic opportunities for low-income and less educated families, programs to increase the proportion of women who receive higher education and who delay child-bearing, and educational efforts to decrease cultural acceptance of violence such as corporal punishment or violence depicted in television and film.

Recurrent child abuse could in theory be prevented by appropriate foster care placements. However, in Alaska the abuse incidence among children in foster care is only marginally better than for the population as a whole.^{9,10}

Capacity

Propriety

Currently, the Office of Children's Services (OCS) has legal jurisdiction for child abuse and neglect and conducts ongoing data analysis. However, OCS has a limited preventative function, and works mainly to decrease recidivism and develop appropriate child placement strategies. This is exemplified by the absence of reductions

in child abuse and neglect as an indicator in OCS improvement plans.¹⁰ Consequently, some agency, and potentially the Women's, Children's, and Family Health Section (WCFH), should assume responsibility for child abuse and neglect prevention. Currently, the rate of substantiated harm to children less than 18 years of age is a State Performance measure on the Title V Block Grant.

Economic Feasibility

Surveillance could effectively be conducted by WCFH for a reasonable amount. Prevention programs themselves, for example Healthy Families, are very expensive, particularly given their variable achievement of success to date.^{20,21}

Acceptability

Programs to prevent child abuse and neglect are highly contentious. For example, Healthy Families has been criticized by individual rights advocates for placing government workers in people's homes and providing instructions on how to raise their children. In part because of the difficulty in prospectively identifying appropriate foster homes for the prevention of secondary child abuse, the Office of Children's Services has been the target of criticism.

Resources

Office of Children's Services; Alaska Bureau of Vital Statistics (fatality data).

Legality

Adequate laws currently exist to conduct adequate surveillance and program evaluation. For prevention efforts, legal status will depend on the particular prevention program being considered.

References

- 1 Gessner BD, Moore M, Hamilton B, Muth PT. The Incidence of Infant Physical Abuse in Alaska. *Child Abuse Negl*;28:9-23. Editorial: *Child Abuse Negl* 2004;28:7-8. 2004.
- 2 Olds DL, Eckenrode J, Henderson CR Jr, et al. Long-Term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect. Fifteen-Year Follow-Up of a Randomized Trial. *JAMA*; 278:637-643. 1997.
- 3 Dietz PM, Spitz AM, Anda RF, Williamson DF, McMahon PM, Santelli JS, Nordenberg DF, Felitti VJ, Kendrick JS. Unintended Pregnancy Among Adult Women Exposed to Abuse or Household Dysfunction During Their Childhood. *JAMA*; 282:1359-1364. 1999.
- 4 Herman DB, Sussner ES, Struening EL, Link BL. Adverse Childhood Experiences: Are They Risk Factors for Adult Homelessness? *Am J Public Health*; 87:249-255. 1997.
- 5 Bayatpour M, Wells RD, Holford S. Physical and Sexual Abuse as Predictors of Substance Use and Suicide Among Pregnant Teenagers. *J Adolesc Health*; 13:128-132. 1992.
- 6 Hillis SD, Anda RF, Felitti VJ, Nordenberg D, Marchbanks PA. Adverse Childhood Experiences and Sexually Transmitted Diseases in Men and Women: A Retrospective Study. *Pediatrics*; 106:E11. 2000.
- 7 Anda RF, Felitti VJ, Chapman DP, Croft JB, Williamson DF, Santelli J, Dietz PM, Marks JS. Abused Boys, Battered Mothers, And Male Involvement In Teen Pregnancy. *Pediatrics*; 107:E19. 2001.
- 8 National Center for Shaken Baby Syndrome. 2005. Website: <http://www.dontshake.com>
- 9 State of Alaska, Department of Health and Social Services, Division of Family and Youth Services. Child and Family Services Review, Statewide Assessment, April 2002. Website: http://hss.state.ak.us/ocs/Publications/Fed_Statewide_Assessment_5-6-02.doc, accessed 4 April 2005.
- 10 State of Alaska, Department of Health and Social Services, Office of Children's Services. Alaska Program Improvement Plan, July 2003. Website: <http://hss.state.ak.us/ocs/Publications/PIPNarrative.doc> last accessed 4 April 2005.
- 11 Walsh C, MacMillan H, Jamieson E. The Relationship between Parental Psychiatric Disorder and Child Physical and Sexual Abuse: Findings from the Ontario Health Supplement. *Child Abuse Negl*; 26:11-22. 2002.

- ¹² Sebre S, Sprugevica I, Novotni A, Bonevski D, Pakalniskiene V, Popescu D, Turchina T, Friedrich W, Lewis O. Cross-Cultural Comparisons of Child-Reported Emotional and Physical Abuse: Rates, Risk Factors and Psychosocial Symptoms. *Child Abuse Negl*; 28:113-27. 2004.
- ¹³ Windham AM, Rosenberg L, Fuddy L, McFarlane E, Sia C, Duggan AK. Risk of Mother-Reported Child Abuse in the First 3 Years of Life. *Child Abuse Negl*; 28:645-67. 2004.
- ¹⁴ Holmes WC, Slap GB. Sexual Abuse of Boys: Definition, Prevalence, Correlates, Sequelae, and Management. *JAMA*; 280:1855-62. 1998.
- ¹⁵ Overpeck MD, Brenner RA, Trumble AC, Trifiletti LB, Berendes HW. Risk Factors for Infant Homicide in the United States. *New Engl J Med*; 339:1211-6. 1998.
- ¹⁶ U.S. Department of Health and Human Services, Administration on Children, Youth and Families. *Child Maltreatment 2003. Tables 3-3; 4-2*. Washington, DC: U.S. Government Printing Office. 2005.
- ¹⁷ National Research Council. *Understanding Abuse and Neglect*. Washington, DC: National Academy Press. 1993.
- ¹⁸ Ettaro L, Berger RP, Songer T. Abusive Head Trauma in Young Children: Characteristics and Medical Charges in a Hospitalized Population. *Child Abuse Negl*; 28:1099-111. 2004.
- ¹⁹ Rovi S, Chen PH, Johnson MS. The Economic Burden of Hospitalizations Associated with Child Abuse and Neglect. *Am J Public Health*; 94:586-90. . 2004.
- ²⁰ Geeraert L, Van den Noortgate W, Grietens H, Onghena P. The Effects of Early Prevention Programs for Families with Young Children at Risk for Physical Child Abuse and Neglect: A Meta-Analysis. *Child Maltreat*; 9:277-91. 2004.
- ²¹ Sweet MA, Appelbaum MI. Is Home Visiting an Effective Strategy? A Meta-Analytic Review of Home Visiting Programs for Families with Young Children. *Child Dev*; 75:1435-56. 2004.

Data Sources

[†] Alaska Office of Children's Services (OCS), 2003 Data in: U.S. Department of Health and Human Services, Administration on Children, Youth and Families. *Child Maltreatment 2003. Tables 3-2; 4-1*. Washington, DC: U.S. Government Printing Office. 2005.

[^] National Data Archive on Child Abuse and Neglect (NDACAN), Combined Aggregate File (CAF), 2003 Data in: U.S. Department of Health and Human Services, Administration on Children, Youth and Families. *Child Maltreatment 2003. Tables 3-3; 4-2*. Washington, DC: U.S. Government Printing Office. 2005.

* Healthy People 2010. U.S. Department of Health and Human Services. *Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols.* Washington, DC: U.S. Government Printing Office. 2000.

Notes

In Alaska, child abuse and neglect refers to episodes experienced by persons less than 18 years of age that indicate that the person's health or welfare is harmed or threatened thereby (Alaska Statute 47.17.290). Abuse may include emotional or physical neglect or physical or sexual abuse. In-depth and comprehensive analysis of incidence and identification of high-risk groups has not been conducted in Alaska.



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Child and Adolescent Mortality and Injury in Alaska

In Alaska and in the United States, the leading manner of death among children, regardless of age or sex, is unintentional injury. The most common causes of unintentional injury deaths among children are motor vehicle crashes, drowning, and fires. Over the last decade, child mortality rates for unintentional injury declined in Alaska and in the nation. With over one-half of all child mortality attributable to unintentional injury, the majority of deaths to Alaskan children could be prevented.

Teenagers in Alaska and the nation have higher unintentional injury mortality rates than any other age group. Nationally, unintentional injury accounts for 52% of deaths among teens ages 15 - 19 years with the leading cause of death being motor vehicle crashes.

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2001-03†	Nation 2002^	Healthy People 2010 Goal*
Overall Mortality			
Child mortality, ages 1-4 years rate per 100,000 population	41.7	31.2	18.6
Child mortality, ages 5-9 years rate per 100,000 population	16.6	15.2	12.3
Adolescent mortality, ages 10-14 years rate per 100,000 population	41.7	19.5	16.8
Teen mortality, ages 15-19 years rate per 100,000 population	100	67.8	39.8

- Alaska's mortality rate for children ages 1-4 years is 34% higher than the national rate and almost 2 times the Healthy People 2010 (HP2010) target.
- Alaska's mortality rate for children ages 5-9 years is 9% higher than the national rate and almost 1.3 times the HP2010 target.
- Alaska's adolescent mortality rate is more than 2 times the national rate and almost 2.5 times the HP2010 target.
- Alaska's teen mortality is 47% higher than the national rate and 2.5 times the HP2010 target.

Indicator	Alaska 2001-03†	Nation 2002^
Unintentional Injury		
Child mortality, ages 1-4 years, due to unintentional injury rate per 100,000 population	18.0	10.5
Child mortality, ages 5-9 years, due to unintentional injury rate per 100,000 population	7.7	5.9
Adolescent mortality, ages 10- 14 years, due to unintentional injury rate per 100,000 population	19.1	7.3
Teen mortality, ages 15-19 years, due to unintentional injury rate per 100,000 population	39.2	35.0

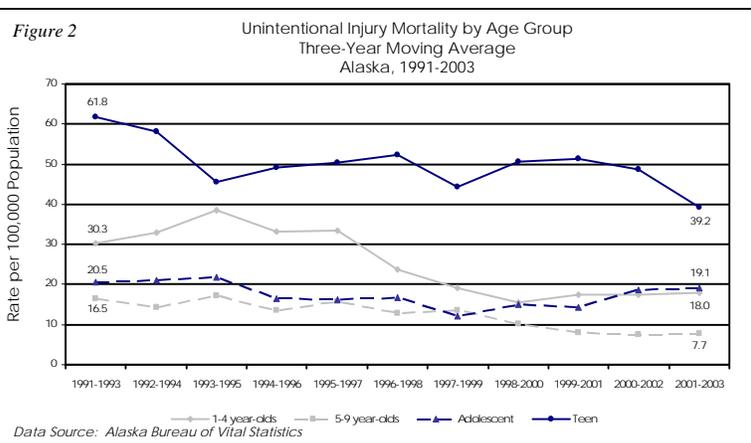
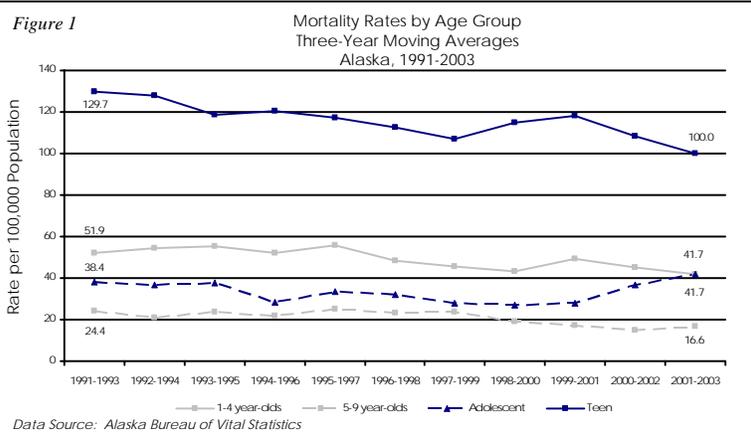
- Alaska's unintentional injury mortality rates are 71% higher among 1-4 year-olds and 31% higher among 5-9 year-olds compared to national rates.
- Among adolescents, Alaska's unintentional injury mortality rate is 2.6 times the national rate.
- Rates of unintentional injury mortality among teens are similar in Alaska and the Nation.

Severity

Falls are a leading cause of traumatic brain injury (TBI) among infants and children. Degree of disability resulting from a TBI can vary depending on force of impact and area of the brain that has been injured. A TBI may result in slight learning disabilities, retinal damage that causes loss of vision, mental retardation, cerebral palsy, or death.¹

According to the CDC, more than 40% of children that receive emergency room care for non-fatal submersion require hospitalization and are at risk of brain damage which can result in long-term disabilities ranging from memory problems and learning disabilities to the permanent loss of basic functioning.²

During 2001-2003, 49 Alaskan teens ages 15-19 committed suicide – a rate of 31 per 100,000 population. Suicide attempts were the most common cause of non-fatal hospitalizations among Alaskan teens (ages 15-19 years).³



Urgency Children

- The leading manner of death for Alaskan children is unintentional injury, which accounted for 49.5% of deaths to children ages 1-4 years and 56.8% of deaths to children ages 5-9 years over the last decade.⁴
- After unintentional injury, the second leading manner of death for Alaskan children over the last decade was homicide.⁴

- During 1994-2003, the most common cause of unintentional injury mortality among Alaskan children was motor vehicle accidents. The second and third most common causes of unintentional injury mortality for Alaskan children were drowning and exposure to smoke, fire and flames.⁴
- During 1997-2001, falls were the leading cause of non-fatal hospitalizations among 1-4 year olds and 5-9 year olds in Alaska.³

Adolescents

- The leading manner of death among Alaskan adolescents over the last decade was unintentional injury, accounting for 50% of adolescent deaths. The second leading manner of death was suicide, which accounted for nearly 10% of adolescent mortality.⁴
- The leading cause of unintentional injury deaths to Alaskan adolescents over the last decade was motor vehicle crashes, accounting for 42% of unintentional injury deaths among adolescents. The second leading cause of adolescent mortality due to unintentional injury was drowning, accounting for 15% of deaths among Alaskan adolescents.⁴
- During 1997-2001, falls were the leading cause of non-fatal hospitalizations among 10-14 year olds in Alaska.³

Teens

- In 2001-2003, Alaska's unintentional injury mortality rates were 52.6 and 24.9 per 100,000 population for males and females in the 15 - 19 age group, respectively.⁴
- The leading cause of unintentional injury deaths to Alaskan teens over the last decade was motor vehicle crashes, accounting for more than one-half of all unintentional injury deaths and nearly one-fourth of overall deaths among teens ages 15 - 19 years. The second leading cause was drowning.⁴
- After unintentional injury, suicide and homicide are the most frequent manner of death for Alaskans ages 15 - 19 years. Alaska's suicide rate among teenagers is the highest in the Nation and has remained unchanged over the last decade.⁴
- The leading manner of death among Alaskan teens over the last decade was unintentional injury, accounting for 42% of deaths to teens ages 15-19 years. The second leading manner of death was suicide, accounting for 32% of deaths.⁴
- Teen homicide rates declined by over 50% over the last decade in Alaska. In 1998 - 2000, Alaska's homicide rate for ages 15-19 years was 1.7 times lower than the national rate for 2000.⁵

Disparities

Children

- During 1994-2003, Alaskan children ages 1-4 were 2.4 times as likely as children ages 5-9 to die due to assault.⁴
- During this 10-year period, Alaskan children ages 1-4 years were more likely to die from the following cause-specific unintentional in mortality compared to children ages 5-9 years: drowning was 1.7 times higher, death from exposure to smoke, fire and flames was 3 times higher, and death due to motor vehicle crashes was 2 times higher.⁴

Adolescents

- During 1994-2003, male adolescents were more than 3 times as likely as female adolescents to die from suicide and nearly 2 times as likely to die of assault.⁴
- During this 10-year period, male adolescents were 1.6 times more likely to die from unintentional injuries than females. Of unintentional injury deaths, they were 1.3 times as likely to die from motor vehicle crashes and 6 times as likely to die as a result of drowning compared to females in the same age group.⁴

Teens

- Male teens in Alaska are almost 4 times more likely to commit suicide and 3.2 times more likely to be a victim of homicide than females in the same age group. Alaska Native males are at greatest risk.⁵
- During 1998 - 2000, intentional injury mortality among teens ages 15-19 years in Alaska (45.8 per 100,000 population) was almost 3 times higher than the 2000 national rate (17.8 per 100,000).⁵
- Alaskan males in the 15-19 year-old age group were almost 2.6 times more likely to die from unintentional injuries than females during 1994-2003. Of unintentional injury deaths, male teens in Alaska were 2.1 times more likely to die from motor vehicle crashes and more than 20 times more likely to die as a result of drowning compared to females in the same age group.⁴
- The suicide rate for Alaska Native males ages 15-19 years during the period 1991 – 1999 (187 per 100,000) was 6 times higher than the rate for non-Native males.⁵

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

There are several recommendations for preventing unintentional injury among infants, including: proper and regular use of child car seats; safe home environment for prevention of death and injury related to falls, drowning, choking, fire, and poisoning; increased access to poison control centers; ability of caregivers to recognize age appropriate foods and toys and provide CPR. The American Academy of Pediatrics recommends that pediatricians counsel parents about falls from windows, decks, fire escapes and age appropriate interventions to reduce the risk of drowning.^{6,7}

The Task Force on Community Preventive Services (TFCPS) recommends two interventions to increase child safety seat use: laws mandating the use of child safety seats and programs that distribute child safety seats and educate parents about their use (Alaska currently has such laws and programs). They also recommended community-wide information and enforcement campaigns and incentive and education programs.⁸

Intervention Effectiveness

Reviews of published studies provide strong evidence of the effectiveness of the recommendations set forth by the TFCPS. Their review found that laws mandating the use of child safety seats was effective in decreasing fatal and nonfatal injuries, and in increasing child safety seat use. When correctly installed and used, child safety seats reduce the risk of death by 70% for infants and 47%-54% for toddlers and reduce the need for hospitalization by 69% for children aged 4 years and younger.⁹

Functional smoke alarms cut the chances of dying in a house fire by 40% to 50%. However, at least one-quarter of U.S. households lack working smoke alarms.

Capacity

Propriety

Promoting programs and behaviors that reduce child and adolescent mortality and injury is within the overall mission of the Women's, Children's, and Family Health Section. There are several national initiatives addressing injury and mortality (unintentional and intentional). The Maternal and Child Health Bureau requires that several mortality indicators for this population (intentional and unintentional) are monitored and assessed on a yearly basis.

Economic Feasibility

Research shows that it costs far less to prevent injuries than it does to treat them. According to the Association of State and Territorial Directors of Health Promotion and Public Health Education, every \$1 spent on a smoke alarm saves \$69 in fire related costs; every \$1 spent on a child safety seat saves society \$32; every \$1 spent on poison control centers saves \$7 on medical costs.

Acceptability

There are several successful state and national programs that promote injury prevention targeted toward children through community awareness.

Resources

Data: Alaska Trauma Registry and Alaska Bureau of Vital Statistics provide data for assessing and monitoring injury and mortality and can provide information on risk factors that can be used to target high-risk groups.

Legality

Not an issue.

References

- ¹ NIH. National Institute of Neurological Disorders and Stroke.
- ² National Center for Injury Prevention and Control. Centers for Disease Control and Prevention. Water-Related Injuries Fact Sheet. <http://www.cdc.gov/ncipc/factsheets/drown.htm> Accessed Jan 2004.
- ³ Alaska Trauma Registry, 1997-2001 Data. DHSS, DPH. January 2005.
- ⁴ Alaska Bureau of Vital Statistics, 1994-2003 Data. DHSS, DPH. January 2005.
- ⁵ Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. June 2003.
- ⁶ American Academy of Pediatrics. Committee on Injury and Poison Prevention. Falls From Heights: Windows, Roofs, and Balconies. PEDIATRICS: 107(5):1188-1191. May 2001.
- ⁷ American Academy of Pediatrics. Policy Statement. Committee on Injury, Violence, and Poison Prevention. Prevention of Drowning in Infants, Children, and Adolescents. PEDIATRICS: 112(2). August 2003
- ⁸ Zaza S, Sleet DA, Thompson RS, Sosin DM, Bolen JC. Task Force on Community Preventive Services. Reviews of evidence regarding interventions to increase use of child safety seats. American Journal of Preventive Medicine 2001;21(4 Suppl):31-47.
- ⁹ The Guide to Community Preventative Services

Data Sources

† Alaska Bureau of Vital Statistics, 2001-2003 Data. DHSS, DPH. January 2005.

^ Anderson RN, Smith BL. Deaths: Leading Causes for 2002. National Vital Statistics Reports; 53(17). Hyattsville, Maryland: National Center for Health Statistics. 2005.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



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Teen Pregnancy and Sexual Behavior in Alaska

Teenage mothers are less likely to receive adequate prenatal and postnatal care, and more likely to experience labor and delivery complications. Infants born to teen mothers are at a higher risk of prematurity, low birth weight, and infant mortality.¹

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003	Nation 2003	Healthy People 2010 Goals*
Pregnancy rate among adolescents ages 15-17 rate per 1,000 population	29.5 [†]	53.5 [•] (2000)	43
Proportion of high school students who abstain from sexual intercourse or use condoms, if they are currently sexually active	89.7% [‡]	87.5% [¥]	95%

The Alaska teen pregnancy rate is the total number of births, fetal deaths, and abortions per 1,000 females in that age group. Out of State occurrences of abortion are not included.

- The pregnancy rate among Alaskan adolescents ages 15-17 is significantly lower than the Healthy People 2010 (HP2010) goal and is 45% lower than the national rate.
- With nearly 9 in 10 Alaskan high school students having reported either abstaining from sexual intercourse or using a condom if they were sexually active, the 2003 rate for Alaska is slightly lower than the HP2010 goal of 95%, and not significantly different among adolescents in grades 9 through 12 in the Nation.

Severity

Adolescent pregnancy risks include several adverse outcomes affecting both mother and infant. Compared to adult mothers, the incidence of low birth weight is 2 times higher, neonatal mortality rate is 3 times higher, and maternal mortality is 2 times higher among teen mothers. Furthermore, teen mothers are more likely to experience poor maternal weight gain, prematurity, pregnancy induced hypertension, anemia, and sexually transmitted diseases.²

In addition to poor pregnancy outcomes, adolescent pregnancy is associated with interruption of education, poverty, limited vocational opportunities, single parent household, and repeat pregnancy.²

Because adolescents and young adults are more likely to have multiple sex partners and engage in risky behaviors

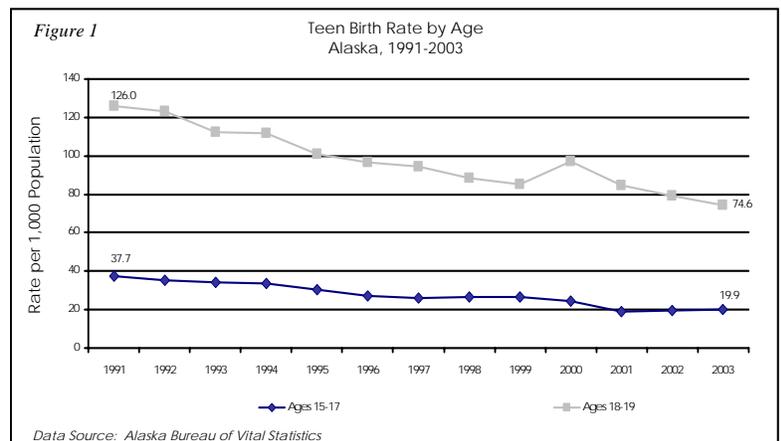
associated with sexually transmitted diseases (STDs), they are at highest risk for acquiring STDs.³

Urgency

Pregnancy

Since 1991, the national birth rate among teens ages 15-17 years and 18-19 years has been declining and, in 2003, reached record lows of 22.4 and 70.8 births per 1,000, respectively. Alaska has consistently exceeded the Nation in the decline of teen births among 15-17 year-olds; in spite of significant declines among older teens, the birth rate for 18-19 year-olds remains higher than the national rate.

- Over the last decade, the birth rates for Alaskan teens ages 15-17 years and 18-19 years have declined significantly. [†] (Figure 1)
- The birth rate among Alaskan teens ages 15-19 years declined nearly 43% from 1991-2003. The teen birth rate among younger teens (15-17 years) declined 41%, from 37.7 per 1,000 population in 1991 to 19.9 in 2003. [†] (Figure 1)
- Although there was a statistically significant decline in the birth rate for 18-19 year-olds over the decade, there was a sharp increase in the birth rate for older teens between 1999-2000, from 85 to 97.3 per 1,000. However, since that time there has been a steady decline and in 2003 reached a record low of 74.6 per 1,000. [†] (Figure 1)



Sexual Activity

Results from the 2003 Alaska Youth Risk Behavior Survey (YRBS) showed that some indicators of risky sexual behaviors among Alaskan high school students (grades 9 through 12) were significantly lower than 1995 results.⁴

- The percentage of Alaskan high school students that reported having ever had sexual intercourse was significantly lower in 2003 compared to 1995 – 39.6% and 47.2%, respectively.⁴
- Among Alaskan high school students that reported they had ever had sexual intercourse, 12.1% had four or more sex partners during their lifetime – significantly lower than 1995 (17.1%).⁴
- Among currently sexually active (reported having sexual intercourse within the last 3 months) Alaskan high school students, 62.3% reported using a condom during their last sexual intercourse. A significant increase from 53.7% in 1995.⁴
- Approximately one-fourth (25.5%) of currently sexually active high school students in Alaska reported having drunk alcohol or used drugs before their last sexual intercourse – there has been no significant decrease.⁴

Disparities

Pregnancy

- In 2003, 70% of infants born to Alaskan teen mothers were among those ages 18-19 years and the pregnancy rate was 3.3 times that of 15-17 year olds.[†]
- From 1991-1999, both the Alaska Native and white teen birth rates have significantly declined in Alaska (29% and 41%, respectively), but there is still a large racial disparity. In 1999, the Alaska Native teen birth rate was 2.5 times that of white teens.⁵

Sexual Activity

- Among Alaskan high school students, white adolescents were most likely to report never having had sexual intercourse. The percentage of white high school students that never had sexual intercourse was nearly 30% higher than Alaska Natives – 63.1% and 49.7%, respectively.⁶
- The percentage of Alaskan high school students that reported ever having had sexual intercourse increased significantly by grade. In 2003, 60% of 12th graders had had sexual intercourse compared to 22.4% of 9th graders.⁴
- Among sexually active high school students, Alaskan 12th graders were more likely to had four or more sex partners during their lifetime (20%), compared to 9th, 10th, and 11th graders (5.5%, 9.2%, and 15.5%, respectively).⁴

- Among currently active Alaskan high school students, females were less likely to have used a condom during their last sexual intercourse compared to males – 58.4% and 66.2%, respectively.[‡]

Economic Loss

Increased welfare costs due to teenage pregnancy and childbearing have substantial economic consequences for society. Advocates for Youth estimates that in federal fiscal year 1996 the federal government spent over \$38 billion to provide services and support to families that began with a birth to a teen. This includes families headed by adult females who were teenagers when they had their first child.

Interventions & Recommendations

Scientifically evaluated programs which are effective in helping teens to delay the initiation of sexual intercourse and to practice safer sexual behaviors when they become sexually active provide accurate, balanced, and realistic sexuality education; youth development; and confidential and low-cost access to contraceptive services.

Sexuality Education

Research indicates that balanced, realistic sexuality education that includes information on both abstinence and contraception, can delay teens' onset of sexual activity, increase the use of contraception by sexually active teens, and reduce the number of their sexual partners.⁷

Youth Development

Research shows that youth development programs can reduce sexual risk behaviors and teenage pregnancy.⁸ Effective youth development programs build on the assets and strengths of young people and assist youth to define goals, complete school, and plan their futures.⁹

Access to Contraception

Making contraceptives available to youth reduces sexual risk behaviors among adolescents. Confidential and low-cost contraceptive services ensure that sexually active teens have what they need to protect themselves and their partners from the risk of infection with HIV or STDs and unintended pregnancy.¹⁰

Intervention Effectiveness

No research indicates that abstinence-only (also known as abstinence-only-until-marriage programs) are effective at reducing rates of teen pregnancy or birth.

Capacity

Propriety

Teen pregnancy is a serious public health issue that falls within the overall mission of the Women's, Children's, and Family Health Section. National indicators related to reducing teen pregnancy and STDs by promoting responsible sexual behavior have been developed (HP2010) and WCFH is required to monitor and assess teen birth rates on a yearly basis for the Title V Block Grant (NPM).

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Sexuality education targeting youth with messages regarding responsible and appropriate sexual behavior are controversial. Despite the evidence that prevention education which includes condom and/or birth control use is more effective, abstinence-only programs are receiving the only encouragement and increases in funding from the federal government.

According to a survey of American's attitudes on sexuality education, more than 90% of adults support abstinence being included as a topic in sexuality education for high school students. However, 70% of American adults oppose provision of federal law that allocates over half a billion dollars for abstinence-only-until-marriage education but prohibits use of the funds for information on contraception for the prevention of disease and unintended pregnancy.¹¹

Moreover, an overwhelming majority of Americans support providing sexuality education in junior and senior high schools. In particular, most Americans want students to have information about protecting themselves against unplanned pregnancy and STD infection.¹¹

Resources

Data Sources: Alaska Bureau of Vital Statistics; Alaska Youth Risk Behavior Survey.

Legality

Not an issue.

References

- 1 Ventura S.J., Martin J.A., Curtin S.C., et al. Births: Final Data for 1999. National Vital Statistics Reports; 49(1). Hyattsville, MD: National Center for Health Statistics. 1999.
- 2 American Academy of Pediatrics. Committee on Adolescence. Adolescent Pregnancy – Current Trends and Issues: 1998. Pediatrics; 103(2). February 1999.
- 3 Alaska Division of Public Health, Section of Epidemiology. Prevention and Control of Gonorrhea and Chlamydia in Alaska. Epidemiology Bulletin, Recommendations and Reports; 3(5). September 1999.
- 4 Alaska Youth Risk Behavior Survey (YRBS) 2003 Data in: Centers for Disease Control and Prevention. Youth Online: Comprehensive Results. Accessed April 2005.
- 5 Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. June 2003.
- 6 Alaska Youth Risk Behavior Survey (YRBS) 2003 Data. DHSS, DPH. August 2004.
- 7 Grunseit A, Kippax S, Aggleton P, Baldo M, Slutkin O. Sexuality Education and Young People's Sexual Behavior: A Review of Studies. Journal of Adolescent Research; 12:421-453. 1997.
- 8 Kirby D. Reflections on Two Decades of Research on Teen Sexual Behavior and Pregnancy. Journal of School Health; 69:89-94. 1999.
- 9 Pagliaro S, Klindera K. Youth Development: Strengthening Prevention Strategies. Issues at a Glance. Washington, DC: Advocates for Youth. 1999.
- 10 Forrest JD, Samara R. Impact of Publicly Funded Contraceptive Services on Unintended Pregnancies and Implications for Medicaid Expenditures. Family Planning Perspectives; 28:188-195. 1966.
- 11 Advocates for Youth and Sexuality Information & Education Council of the United States. Poll on America's Attitudes toward Sexuality Education. Conducted by Hickman-Brown Research for Advocates and The Council between February 23 and March 3, 1999. Washington, DC: Hickman-Brown, 1999.

Data Sources

† Alaska Bureau of Vital Statistics, 2003 Data. DHSS, DPH. January 2005.

‡ Alaska Youth Risk Behavior Survey, 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53(SS-2). May 2004.

^ Ventura SJ, Abma JC, Mosher WD, Henshaw S. Estimated Pregnancy Rates for the United States, 1999-2000: An Update. National Vital Statistics Report (NVSR); 52(23):Table 1. Hyattsville, Maryland: National Center for Health Statistics (NCHS). 2004.

¥ Youth Risk Behavior Survey, 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53 (SS-2). May 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



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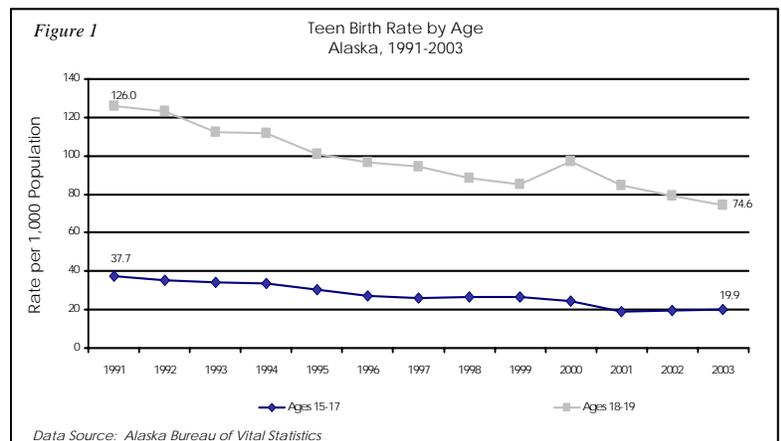
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- 2 American Academy of Pediatrics. Committee on Adolescence. Adolescent Pregnancy – Current Trends and Issues: 1998. Pediatrics; 103(2). February 1999.
- 3 Alaska Division of Public Health, Section of Epidemiology. Prevention and Control of Gonorrhea and Chlamydia in Alaska. Epidemiology Bulletin, Recommendations and Reports; 3(5). September 1999.
- 4 Alaska Youth Risk Behavior Survey (YRBS) 2003 Data in: Centers for Disease Control and Prevention. Youth Online: Comprehensive Results. Accessed April 2005.
- 5 Schoellhorn J, Wiens HN, Perham-Hester K. Alaska Maternal and Child Health Data Book 2003. Anchorage, AK: Maternal and Child Health Epidemiology Unit, Section of Maternal Child and Family Health, Division of Public Health, Department of Health and Social Services. June 2003.
- 6 Alaska Youth Risk Behavior Survey (YRBS) 2003 Data. DHSS, DPH. August 2004.
- 7 Grunseit A, Kippax S, Aggleton P, Baldo M, Slutkin O. Sexuality Education and Young People's Sexual Behavior: A Review of Studies. Journal of Adolescent Research; 12:421-453. 1997.
- 8 Kirby D. Reflections on Two Decades of Research on Teen Sexual Behavior and Pregnancy. Journal of School Health; 69:89-94. 1999.
- 9 Pagliaro S, Klindera K. Youth Development: Strengthening Prevention Strategies. Issues at a Glance. Washington, DC: Advocates for Youth. 1999.
- 10 Forrest JD, Samara R. Impact of Publicly Funded Contraceptive Services on Unintended Pregnancies and Implications for Medicaid Expenditures. Family Planning Perspectives; 28:188-195. 1966.
- 11 Advocates for Youth and Sexuality Information & Education Council of the United States. Poll on America's Attitudes toward Sexuality Education. Conducted by Hickman-Brown Research for Advocates and The Council between February 23 and March 3, 1999. Washington, DC: Hickman-Brown, 1999.

Data Sources

† Alaska Bureau of Vital Statistics, 2003 Data. DHSS, DPH. January 2005.

‡ Alaska Youth Risk Behavior Survey, 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53(SS-2). May 2004.

^ Ventura SJ, Abma JC, Mosher WD, Henshaw S. Estimated Pregnancy Rates for the United States, 1999-2000: An Update. National Vital Statistics Report (NVSR); 52(23):Table 1. Hyattsville, Maryland: National Center for Health Statistics (NCHS). 2004.

¥ Youth Risk Behavior Survey, 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53 (SS-2). May 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Women's, Children's, & Family Health



April 2005

Title V Needs Assessment: Special Series Fact Sheet

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Youth Risk Behaviors in Alaska Tobacco Use, Alcohol Use, Drug Use

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003	Nation 2003	Healthy People 2010 Goal ¹
Tobacco Use [†]			
Percent of adolescents grades 9 through 12 that used tobacco products in the past month	24.8%	27.5%	21%
Percent of adolescents grades 9 through 12 that smoked cigarettes in the past month	19.2%	21.9%	16%
Percent of adolescents grades 9 through 12 that used spit tobacco in the past month	11.2	6.7%	1%
Percent of adolescents grades 9 through 12 that smoked cigars in the past month	7.8%	14.8%	8%
Percent of adolescents grades 9 through 12 that made tobacco use cessation attempts	69.5%	60.1%	84%
Alcohol Use [^]			
Percent of adolescents ages 12-17 years that have not drank alcohol in the past 30 days	84.1%	82.9%	89%
Percent of adolescents ages 12-17 years that have binged (≥5 alcoholic beverages within a couple of hours)	11.0%	10.7%	2%
Drug Use [^]			
Percent of adolescents ages 12-17 that have used marijuana on one or more of the past 30 days	9.4%	8.2%	0.7%
Percent of adolescents ages 12-17 years that have not used illicit drugs in the past 30 days	86.7%	88.6%	89%

- Among Alaskan high school students that smoke, 7 in 10 have tried to quit – however, still not achieving the HP2010 goal.
 - Binge drinking among Alaskans ages 12-17 years is higher than that among national adolescents of the same age group and significantly higher than the HP2010 goal.
 - Alaskan adolescents ages 12-17 years were not as likely to abstain from using illicit drugs in the past 30 days as adolescents of the same age group in the Nation. Alaska has not yet achieved the HP2010 goal for this measure.
 - Marijuana use is higher among Alaskan adolescents (ages 12-17 years) compared to the Nation and is 13.4 times higher than the HP2010 goal.
- Severity**
- According to the Surgeon General, smokeless tobacco use is associated with oral cancer and oral leukoplakia. Studies have shown that it also increases the risk of tooth loss and periodontal disease. Furthermore, smoking by children and adolescents is related to impaired lung growth, chronic coughing, and wheezing. Active smoking by young people is associated with significant health problems during childhood and adolescence and with increased risk factors for health problems in adulthood. Cigarette smoking during adolescence appears to reduce the rate of lung growth and the level of maximum lung function that can be achieved. Young smokers are likely to be less physically fit than young nonsmokers; fitness levels are inversely related to the duration and the intensity of smoking. Adolescent smokers report that they are significantly more likely than their nonsmoking peers to experience shortness of breath, coughing spells, phlegm production, wheezing, and overall diminished physical health. Cigarette smoking during childhood and adolescence poses a clear risk for respiratory symptoms and problems during adolescence; these health problems are risk factors for other chronic conditions in adulthood, including chronic obstructive pulmonary disease.¹
- The percent of Alaskan high school students that used any tobacco and the percent that smoked cigarettes products in the past month are both lower compared to high school students in the Nation; however, Alaska has still not achieved the Healthy People 2010 (HP2010) goals for either.
 - Alaskan high school students have achieved the HP2010 goal to reduce the percent that smoked cigars in the past month to less than 8%; the prevalence for Alaska was nearly half that of the Nation.
- Violence, risky sexual behavior that can lead to unintended pregnancy and sexually transmitted diseases, and school failure have been shown to be associated with heavy drinking and drug abuse among youth. Furthermore,

according to the Surgeon General, 40% of children who begin using alcohol before age 13 will eventually become alcoholics – according to the Alaska Youth Risk Behavior Survey, nearly 1 in 4 (23.2%) Alaskan high school students (grades 9-12) had their first drink of alcohol before age 13.

Urgency

Data from the 2003 Alaska YRBS showed that some behaviors related to tobacco, alcohol, and drug use were significantly lower compared to 1995.

Tobacco

- The prevalence of abstaining from cigarette smoking (ever tried smoking, even one or two puffs) was 56.1% in 2003 compared to 72.1% in 1995 – a decrease of 22%.
- The percent of high school students that reported that they smoked cigarettes on one or more of the past 30 days decreased from 36.5% in 1995 to 19.2% in 2002 – a decrease of 47%.

Alcohol

- The percentage of students that reported having had their first drink of alcohol before age 13 decreased from 36.7% in 1995 to 23.2% in 2003 – a decrease of 23%.
- Although nearly 40% of Alaskan high school students were current drinkers at the time of the survey (i.e., at least one drink of alcohol on one or more of the past 30 days) the prevalence was significantly lower than it was in 1995 (47.5%) – a decrease of 19%.

Drug

- More than 1 in 4 (28.4%) of high school students reported that they were offered, sold, or given an illegal drug on school property by someone during the past 12 months. This was a significant decrease from 34.1% in 1995.
- The prevalence of reported current marijuana use and current marijuana use on school property among high school students in Alaska was significantly lower in 2003 compared to 1995 – decreases of 17% and nearly 30%, respectively.
- There was no change in lifetime use or current use of cocaine (includes powder, crack, and freebase) between 1995 and 2003 among Alaskan high school students.

Disparities

Tobacco

- Among Alaskan high school students, males were more than 2 times as likely to have used chew tobacco, dip, or snuff on one or more of the past 30 days as females – 15.6% and 6.2%, respectively.

- Males were 3.3 times as likely to have smoked cigars, cigarillos, or little cigars on one or more of the past 30 days as females – 11.7% and 35%, respectively.

Drug

- Among Alaskan high school students, males were 1.6 times more likely to have smoked marijuana before age 13 compared to females – 15.8% and 9.9%, respectively. They were also more likely to have been offered, sold, or given any illegal drug on school property by someone during the past 12 months.
- Alaskan high school females (10.4%) had a slightly higher prevalence of having ever sniffed glue, breathed aerosol spray cans, inhaled paint or sprays to get high during their lifetime compared to males (9.9%); however, Alaskan high school males were nearly 2 times more likely as females to report having done this activity on one or more of the past 30 days – 3.0% and 1.7%, respectively.

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

Alaskans have been working to decrease youth tobacco use through increasing the tax on tobacco products, education of young people, enforcement of laws restricting sales to minors, and a statewide ban on self-service tobacco displays.²

Research funded by the National Institute for Drug Abuse and other Federal research organizations, such as the National Institute of Mental Health and the Centers for Disease Control and Prevention, shows that early intervention can prevent many adolescent risk behaviors.³

Prevention programs should address all forms of drug abuse, alone or in combination, including the underage use of legal drugs (e.g., tobacco or alcohol); the use of illegal drugs (e.g., marijuana or heroin); and the inappropriate use of legally obtained substances (e.g., inhalants), prescription medications, or over-the-counter drugs.³

Intervention Effectiveness

The U.S. Preventative Services Task Force found limited evidence that screening and counseling children and adolescents in the primary care setting are effective in either preventing initiation or promoting cessation of tobacco use.⁴

Because of the difficulty in recruiting and retaining adolescents in formal cessation programs smoking-cessation programs tend to have low success rates.¹

School-based smoking-prevention programs that identify social influences to smoke and teach skills to resist those influences have demonstrated consistent and significant reductions in adolescent smoking prevalence, and program effects have lasted one to three years. Programs to prevent

smokeless tobacco use that are based on the same model have also demonstrated modest reductions in the initiation of smokeless tobacco use. Furthermore, the effectiveness of school-based smoking-prevention programs appears to be enhanced and sustained by comprehensive school health education and by communitywide programs that involve parents, mass media, community organizations, or other elements of an adolescent's social environment.¹ Community prevention programs that combine two or more effective programs, such as family-based and school-based programs, can be more effective than a single program alone.³

Capacity

Propriety

Improving the health of and assuring health services access for CSHCN is within the overall mission of the Women's, Children's, and Family Health Section. Improving access to health services among the CSHCN population is a national objective (HP2010) and there are several indicators related to access to care and links to services that are required by the Maternal and Child Health Bureau to be followed and assessed on a yearly basis (Title V Block Grant).

Economic Feasibility

Monitoring and assessing youth risk behaviors such as tobacco, alcohol and drug use through data systems that are already in place (YRBS) is entirely feasible. The economic feasibility of other activities to address reducing the prevalence of these behaviors was not evaluated.

Acceptability

Most of the American public strongly favor policies that might prevent tobacco use among young people. These policies include tobacco education in the schools, restrictions on tobacco advertising and promotions, a complete ban on smoking by anyone on school grounds, prohibition of the sale of tobacco products to minors, and earmarked tax increases on tobacco products.¹

Resources

Data Sources: Alaska Youth Risk Behavior Survey can be used to monitor risk behaviors and identify high-risk groups.

Legality

Underage drinking is addressed legally on three different levels. The Alaska Statutes are the primary vehicle for addressing the issue in Alaska. The central state statute addressing underage drinking is Alaska Statute (A.S.) 04.16.050, which prohibits possession or consumption of alcohol by a person younger than 21 years of age. Other sections of A.S. 04.16 address issues such as providing alcohol to minors, minors on licensed premises, and renting rooms for the purpose of consuming alcohol.

Alaska State Law prohibits marijuana and cocaine use. It was not until March 1991 that Alaska made marijuana illegal. Marijuana was made legal for medicinal purposes in 1999 under Alaska Statute 17.37.010.

References

- ¹ U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2004.
- ² State of Alaska, Department of Health and Social Services, Division of Public Health. Alaska Youth Risk Behavior Survey 2003. February 2004.
- ³ Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Adolescent and School Health; Health Resources and Services Administration, Maternal and Child Health Bureau, Office of Adolescent Health; National Adolescent Health Information Center, University of California, San Francisco. Improving the Health of Adolescents & Young Adults: A Guide for States and Communities. Atlanta, GA. 2004.
- ⁴ U.S. Preventative Services Task Force. Guide to Clinical Preventive Services, 3rd Edition. 1996.

Data Sources

[†] Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003. MMWR; 53(SS-2). May 2004.

[^] National Survey on Drug Use and Health, 2002-2003. SAMHSA, Office of Applied Studies. (2004). Results from the 2002-2003 National Survey on Drug Use and Health: National and State findings. Rockville, MD: Substance Abuse and Mental Health Services Administration.

^{*} Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



Women's, Children's, & Family Health



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Youth Violence in Alaska

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2003 [†]	Nation 2003 [^]	Healthy People 2010 Goal [†]
Percent of adolescents grades 9 through 12 that were in a physical fight	27.1%	33.0%	32%
Percent of adolescents grades 9 through 12 that carried a weapon on school property	7.1%	6.1%	4.9%

- Alaska has met the Healthy People 2010 goal to reduce the percentage of high school students that were in a physical fight to less than 32%.
- The percentage of Alaskan high school students that carried a weapon on school property was nearly 1.5 times higher than the HP2010 goal, and slightly higher than the national average.

Severity

Victims of violence can suffer psychological trauma, physical injuries, disability, and death. During 1997-2001, assault was the 4th leading cause of non-fatal hospitalization among Alaskan teens ages 15-19 and it was the 3rd leading cause of death among this age group over the last decade with a rate of 10.3 per 100,000 population. Assault was the 3rd leading cause of death among Alaskan children ages 10-14 years.

Urgency

- Nearly 1 in 5 (18%) Alaskan high school students carried a weapon (such as a gun, knife, or club) and 6.7% carried a gun on one or more of the past 30 days. Compared to 1995 there has been a significant decline in both of these behaviors, with a prevalence of 24% and 9.1%, respectively.[†]
- Among Alaskan high school students, 8.1% were threatened or injured with a weapon on school property on one or more days during the last year and 4.1% did not go to school on one or more of the last 30 days because they didn't feel safe. There has been no significant change in either of these behaviors compared to 1995.[†]

- One in nine (11%) Alaskan high school students were hit, slapped, or physically hurt by their boyfriend or girlfriend one or more times during the past 12 months. The prevalence was similar for males (10.5%) and females (10.9%).[†]
- Approximately one-third (34%) of Alaskan high school students had property (such as car, clothing, or books) stolen or damaged on school property during the past 12 months.[†]

Disparities

- Among Alaskan high school students, males were nearly 5 times more likely to have carried a weapon, (such as a gun, knife, or club) on one or more of the past 30 days than girls (30% and 6.3%, respectively) and they were 7 times more likely to have carried a weapon on school property (12% and 1.7%, respectively).[†]
- Compared to females, male high school students were significantly more likely to have been in one or more physical fights during the past 12 months (34% and 20%, respectively).[†]

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

The American Academy of Pediatrics recommends ongoing monitoring of trends and characteristics of violence, through public health tracking of violent injuries.¹ Interventions to reduce youth violence will be multidisciplinary and will include programs to reduce gang involvement,² school bullying,³ date violence,⁴ and violence associated with drug dependency.^{5,6} It may also involve interventions directly early in a child's life, such as during elementary school.⁷

Intervention Effectiveness

Various interventions have demonstrated varying degrees of effectiveness. The best mix of strategies for Alaskan youth has not been determined. Ongoing surveillance to identify high-risk groups and risk factors for violence will increase the chance that adopted interventions will be effective locally.

Capacity

Propriety

Youth violence is a critical public health concern. Monitoring and assessing youth violent behaviors and injury through existing data collection systems is within the overall mission of the Women's, Children's, and Family Health Section. Reducing youth violence is a national objective (HP2010).

Economic Feasibility

It would be feasible to monitor and assess youth violence behaviors, violence associated deaths and hospitalizations through existing data collection systems. The interventions necessary to reduce youth violence will likely be expensive and require sustained support.

Acceptability

Acceptability of reducing youth violence was not evaluated.

Resources

Data sources: Alaska Youth Risk Behavior Survey (YRBS); Alaska Bureau of Vital Statistics; Alaska Trauma Registry.

Legality

Various aspects of youth violence monitoring and prevention raise legal issues. For example the Anchorage School District elected to require parental consent for YRBS, the primary surveillance measure of youth violence. Punitive approaches to youth violence are highly variable between legal jurisdictions. Interventions such as reducing children's exposure to corporal punishment may be seen by some as governmental interference in family matters.

References

- AAP. Policy Statement. The Role of the Pediatrician in Youth Violence Prevention in Clinical Practice and at the Community Level. *Pediatrics*; 103(1):173-181. January 1999.
- Peterson D, Esbensen FA. The Outlook is G.R.E.A.T.: What Educators Say about School-Based Prevention and the Gang Resistance Education and Training (G.R.E.A.T.) Program. *Eval Rev*;28:218-45. 2004.
- Smith PK, Ananiadou K, Cowie H. Interventions to Reduce School Bullying. *Can J Psychiatry*;48:591-9. 2003.
- Foshee VA, Bauman KE, Ennett ST, Linder GF, Benefield T, Suchindran C. Assessing the Long-Term Effects of the Safe Dates Program and a Booster in Preventing and Reducing Adolescent Dating Violence Victimization and Perpetration. *Am J Public Health*;94:619-24. 2004.
- Perry CL, Komro KA, Veblen-Mortenson S, Bosma LM, Farbaksh K, Munson KA, Stigler MH, Lytle LA. A Randomized Controlled Trial of the Middle and Junior High School D.A.R.E. and D.A.R.E. Plus Programs. *Arch Pediatr Adolesc Med*;157:178-84. 2003.
- Randall J, Cunningham PB. Multisystemic Therapy: A Treatment for Violent Substance-Abusing and Substance-Dependent Juvenile Offenders. *Addict Behav*;28:1731-9. 2003.
- Embry DD. The Good Behavior Game: A Best Practice Candidate as a Universal Behavioral Vaccine. *Clin Child Fam Psychol Rev*;5:273-97. 2002.

Data Sources

† Alaska Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53(SS-2). May 2004.

^ Youth Risk Behavior Survey (YRBS), 2003 Data in: Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance Summaries – United States, 2003.MMWR; 53(SS-2). May 2004.

* Healthy People 2010. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. 2 Vols. Washington, DC: U.S. Government Printing Office. 2000.



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Characteristics and Issues of Children with Special Health Care Needs in Alaska

The National Survey of Children with Special Health Care Needs (CSHCN) found that 12.8% of children in the United States ages 0-17 years have special health care needs.¹ Approximately 23% of these children are usually or always affected in their activities by their conditions, 37% are sometimes affected, and 39% are never affected in their activities. More than 1 in 10 (11.6%) CSHCN were uninsured at some point during the year prior to the survey.

*This fact sheet is a summary of findings from the 2001 National Survey of Children with Special Health Care Needs.¹

Seriousness

Healthy People 2010 Targets and National Data

Indicator	Alaska 2001	Nation 2001	Healthy People 2010 Goal
The percent of CSHCN (ages 0-17 years) that receive coordinated, ongoing, comprehensive care within a medical home	46.4	52.7	Dev.

The Healthy People 2010 objective is developmental and no target has been set at this time.

- The percent of children with special health care needs in Alaska that have a medical home is slightly lower than the Nation.

Severity

Approximately 20% of parents of Alaskan CSHCN ranked their child's condition as 'severe' or 'most severe', 51.2% ranked their child's condition as 'moderate', and 28.2% ranked their child's condition as 'mild'.

More than 1 in 4 (26.9%) of Alaskan CSHCN have health conditions that consistently and often greatly affect their daily activities and 15.6% had 11 or more days of missed school days due to illness.

More than 1 in 5 (21.3%) parents of Alaskan CSHCN reported that the specific information they needed about their child's health or health care (such as the causes of any health problems, how to care for the child now, and what changes to expect in the future) were never or only sometimes provided by their doctors or health care providers.

Urgency

Health Insurance Coverage

- At the time of the survey, 8.3% of Alaskan CSHCN were currently uninsured and 13.9% were without insurance at some point during the past year.

- One-third of Alaskan CSHCN that were currently insured at the time of the survey did not have adequate coverage.
- Among Alaskan CSHCN that were insured at the time of the survey, 56.4% had private insurance only, 23.6% had public insurance only (Medicaid, SCHIP, Title V, or other public insurance), and 11.6% had a combination of public and private insurance.

Access to Care

- 1 in 5 Alaskan CSHCN have 1 or more unmet needs for specific health care services.
- Among Alaskan CSHCN, of families who needed respite care, genetic counseling and/or mental health services, 1 in 5 families did not get all the care they needed.
- Nearly 1 in 4 (23.3%) of Alaskan CSHCN needed specialty care and had a problem getting a referral, 8.1% did not have a usual source of care (or relied on the emergency room), and 18.1% did not have a personal doctor or nurse.

Impact on Family

- Among families of Alaskan CSHCN, 21.3% experienced financial problems due to their child's health needs.
- Nearly one-third (31.7%) of Alaskan CSHCN had health needs that caused family members to cut back or stop working.
- Among families of Alaskan CSHCN, 15.6% spent 11 or more hours per week providing and/or coordinating health care for their child.

Disparities

- Among Alaskan families of CSHCN, low-income families were more likely to spend more time providing, arranging, or coordinating care for their child each week and were more likely to have stopped

working due to their child's needs compared to higher-income.

- The poorest families, 0-99% of the Federal Poverty Level (FPL), spend the most hours per week providing or coordinating care for their child - 38.7% spend 11 or more hours per week compared to 11.8% for families at 200-399% FPL and 10.6% for those at or above 400% FPL.
- The prevalence of special health care needs among Alaskan children ages 0-17 years was higher among males ages than females – 13.3% and 8.1%, respectively.

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

Early and continuous screening efforts begin with newborn metabolic screening and hearing screening; screenings and diagnosis may continue through Early Periodic Screening and Diagnostic Testing (EPSDT) for children from birth through age five. It is a priority to organize access to community-based services so that families can easily find and use them. Another priority is expansion of services to cover children as they transition from youth to adulthood.

Alaska's CSHCN program has been taking part in nationally funded efforts to assure access to a medical home. An effort has been made to identify, access and connect with adequate sources of affordable health insurance. Furthermore, families of CSHCN serve on local, state and national boards to bring light to their challenges and to partner in decision making.

In 2003 an Alaska CSHCN Summit was held to bring together families, health care providers, health care administrators, health care advocates, administrative personnel and community leaders so they could share their strategies for future work with CSHCN.

Alaska Maternal Infant Mortality Review (AMIMR) provides reliable and timely information on fetal, infant and maternal deaths in Alaska. The information is used in evaluating current health initiatives and in making recommendations for future health initiatives to reduce untimely deaths.

The All Alaska Pediatric Partnership (AAPP) is a network of children's health services providers that works to maintain and improve the health of all of Alaska's children. It acts as a catalyst for the developmental and implementation of collaborative programs.

Intervention Effectiveness

Effectiveness of these interventions was not evaluated.

Capacity

Propriety

Improving the health of and assuring health services access for CSHCN is within the overall mission of the Women's, Children's, and Family Health Section. Improving access to health services among the CSHCN population is a national objective (HP2010) and there are several indicators related to access to care and links to services that are required by the Maternal and Child Health Bureau to be followed and assessed on a yearly basis (Title V Block Grant).

Economic Feasibility

Economic feasibility was not evaluated, however, continued monitoring of demographics, characteristics, and health/economic issues of CSHCN is entirely feasible through the National Survey of Children with Special Health Care Needs. Although this survey is not done on a yearly basis, it will be available every 2-3 years.

Acceptability

The overwhelming response to the Alaska CSHCN Summit demonstrated that the community recognizes CSHCN issues need to be addressed. The Summit identified needs and challenges and developed strategies for addressing them. All encompassed elements of hope, understanding and commitment to allow Alaskan children an opportunity to have a healthy and exhilarating childhood.

Resources

Alaska's Genetics and Specialty Clinics Programs; Alaska's Developmental Disabilities Program; Family Resource Project; STAR Projects; PARENTS, Inc.; Governor's Council on Disabilities and Special Education; Denali KidCare; Early Periodic Screening, Diagnosis and Treatment; Supplemental Security Income.

Legality

Alaska Regulation (7 AAC 27.012) established a registry for reporting birth defects.

Alaska Law (18.15.200) requires that all babies born in Alaska receive screening tests for PKU and other metabolic disorders that can result in mental retardation and/or other serious health problems.

Alaska Law (21.42.345) requires that insurance coverage for a newly born child under this section shall consist of coverage of injury or sickness, including the necessary care and treatment of medically diagnosed congenital defects and birth abnormalities.

February 2005 a bill was introduced to mandate hearing screening for all newborns within the state of Alaska.

References

- ¹ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook 2001. Rockville, Maryland: U.S. Department of Health and Human Services, 2004.



Oral Health Among Children with Special Health Care Needs in Alaska

Nationally, 12.8% of U.S. children and adolescents ages 0-17 years have special health care needs.¹ The oral health of these children may be affected negatively by the medications (medications decreasing saliva flow), therapies, or special diets they require, or by their difficulty with cleaning teeth thoroughly on a daily basis.²

Conditions that may lead to special health care needs include Down syndrome, cleft lip/palate and other craniofacial defects, cerebral palsy, learning and developmental disabilities, emotional disturbances, vision and hearing impairments, diabetes, asthma, genetic and hereditary disorders with orofacial defects, or HIV infection.

Seriousness

Healthy People 2010 Targets and National Data

A Healthy People 2010 Objective for oral health among children with special needs is to increase the number of states that have a system of recording and referring infants and children with cleft lips, cleft palates, and other craniofacial anomalies – Alaska currently has this system in place.

Severity

Children with disabilities present unique problems are at increased risk for oral infections, delays in tooth eruption, periodontal disease, enamel irregularities, and moderate-to-severe malocclusion (poor bite).³ Children with cleft lip/palate are at increased risk for dental caries, gingivitis, cross bite, and dental crowding.⁴

Urgency

Alaska specific data on the prevalence dental needs for children and adolescents with special health care needs is limited. However, national data from oral assessments of U.S. Special Olympics athletes in 1999 (all ages), based on an extremely conservative protocol (visual assessment without use of mouth mirrors, dental explorers or x-rays), found 12.9% of the athletes reported some form of oral pain, 39% demonstrated signs of gingival infection, and nearly 25% had untreated dental decay.⁵

Results of the 2001 National Survey of Children with Special Health Care Needs (CSHCN), 10.7% of children ages 0-17 in Alaska had special health care needs.¹

- Of Alaskan CSHCN in 2001, nearly 80% needed dental care, including check-ups in the past 12 months of the survey. Of these, 11.5% did not receive the dental care they needed.¹
- For the 5-year period 1998-2002, the rate of oral cleft among Alaskan children was 3.1 per 1,000 population⁶ – approximately 3 times higher than the national rate of 1.2 per 1,000 population.⁵

- Medicaid/Denali KidCare is the dental coverage source for many of the children and adolescents with special health care needs. Only about 1 in 3 children enrolled in Medicaid/Denali KidCare receive an annual dental service.⁷ Furthermore, many dentists are not accepting new Medicaid clients in their practices and the state has only 14 pediatric dental specialists.

Disparities

- From 1998-2002, the 5-year rate of oral cleft was nearly 2 times as high among Alaska Native children as white children – 5.0 and 2.7 per 1,000 population, respectively.⁶

Economic Loss

Economic loss was not evaluated.

Interventions & Recommendations

- Assess the number of children and adolescents with special health care needs in Alaska, their oral health needs, and issues affecting dental access.
- Assist training for pediatric dentists and/or general practitioners in patient management for children and adolescents with special health care needs. The aim should be to either reduce the number of times children need to undergo general anesthesia for dental care through providing services in outpatient settings or coordinating their dental treatment with other medical procedures when hospital-based care is needed.
- Because parents often lack confidence about performing oral hygiene care for their child because they do not have enough information about their child's dental growth and development,⁸ training opportunities should be provided for parents and caregivers to educate on dental conditions, management of such conditions and provision of daily dental home care (brushing and flossing).

- Support education efforts for use of folic acid prior to and during pregnancy to reduce neural clefts (including cleft lip and/or cleft palate).
- Dental care for children and adolescents with more severe disabilities is often done by dental pediatric specialists, however as children mature into adulthood the pediatric practices usually are not configured to accommodate adult patients, the disabled adult may find difficulty finding a general practitioner to provide dental care, and the individual may lose coverage for routine dental care (e.g., limited services for adults in many state Medicaid programs). The State should support efforts to increase dental access in the state's Medicaid/Denali KidCare program along with efforts to provide some minimum level of routine dental care to adults with disabilities that are enrolled in Medicaid.
- The Alaska Native Medical Center will be starting a hospital-based pediatric residency program in the fall of 2005 – this program offers hope to increase the number of pediatric specialists practicing in Alaska.

Intervention Effectiveness

- The Alaska Maternal Child Health Block Grant coordinates services for treatment of cleft lip and/or cleft palate through regional specialty clinics. In state fiscal year 2004, 123 children received corrective services through these specialty clinics.⁹

Capacity

Propriety

Children with special health care needs have unique issues among the maternal and child health population. Promoting access to care, and monitoring and assessing the oral health needs of the CSHCN population is within the overall mission of the Women's, Children's and Family Health Section.

Economic Feasibility

Economic feasibility was not evaluated.

Acceptability

Although acceptability was not evaluated, given the impact on the quality of life and health, it is an issue that would most likely be accepted among the target population and community.

Resources

State Oral Health Program; Specialty Clinics program; Alaska Birth Defects Registry; National Survey of Children with Special Health Care Needs.

Legality

Physicians, hospitals, and other health care facilities and providers must report children from birth up to one year of age who have any of the reportable birth defects under the Alaska Administration Code (7 AAC 27.012).

References

- ¹ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook 2001. Rockville, Maryland: U.S. Department of Health and Human Services. 2004.
- ² Casamassimo P, ed. Bright Futures in Practice: Oral Health. Arlington, VA: National Center for Education in Maternal Child Health. 1996.
- ³ Isman B, Newton RN. Oral Conditions in Young Children with Developmental Disabilities: Addressing Common Parental Concerns. Dental Hygiene News; 10 (1):5-6. 1997.
- ⁴ Mitchell JC, Wood RJ. Management of Cleft Lip and Palate in Primary Care. Journal of Pediatric Health Care: 14(1):13-19. 2000.
- ⁵ U.S. Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General. 2000.
- ⁶ Alaska Department of Health and Social Services. Unpublished data from the Alaska Birth Defects Registry. 2005.
- ⁷ Alaska Department of Health and Social Services. Medicaid Program data. CMS416 utilization reports.
- ⁸ Isman B, Newton R, Bujold C, Baer MT. 2000. Planning Guide for Dental Professionals Serving Children with Special Health Care Needs. Los Angeles, CA: University of Southern California University Affiliated Program, Children's Hospital.
- ⁹ Alaska Department of Health and Social Services. Unpublished data from MCH Specialty Clinics. 2005.
- ¹⁰ McPherson M, Arango P, Fox H, Lauver C, McManus M, Newacheck PW, Perrin JM, Shonkoff JP, Strickland B. A New Definition of Children with Special Health Care Needs. Pediatrics; 102(1):137-140. 1998.

Notes

The U.S. Maternal and Child Health Bureau has defined children and adolescents with special health care needs as those “who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who require health and related services of a type or amount beyond that required by children generally.”¹⁰