

**Alaska Maternal and
Child Health
Data Book
2004:
PRAMS Edition**

**Alaska Division of Public Health
Section of Women's, Children's and Family Health**

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How to Learn More About PRAMS

Visit <http://www.epi.hss.state.ak.us/mche/pi/PRAMS> to find out more about Alaska PRAMS or <http://www.cdc.gov/reproductivehealth/prams/index.htm> to find out more about PRAMS at the federal level.

Alaska Maternal and Child Health Data Book 2004: PRAMS* Edition

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*Pregnancy Risk Assessment Monitoring System

The 2004 edition of the Alaska Maternal and Child Health (MCH) Data Book presents detailed information from the Alaska Pregnancy Risk Assessment Monitoring System (PRAMS). The PRAMS edition of the MCH Data Book provides policy makers, public health professionals and health care providers with critical data on leading issues affecting women before, during and after pregnancy.

The PRAMS edition complements the 2003 Alaska Maternal and Child Health Data Book, which presented comprehensive information on important health status indicators and emerging issues in Maternal and Child Health. We hope that our unique format will serve as an easy-to-use reference for people seeking statistics and epidemiological information for use in program planning and decision-making. Future special editions of the MCH Data Book will feature detailed information from the Alaska Birth Defects Registry and the Fetal Alcohol Syndrome Surveillance Project. We will continue to publish comprehensive summaries of maternal and child health status every three years.

The Alaska Maternal and Child Health Data Book 2004 features PRAMS data collected in 1991 through 2001. We are very excited to present, for the first time, not only prevalence trends, but regional prevalence and detailed demographic information for each indicator. The narrative sections provide the user with background information, comparison data, and accurate interpretations of PRAMS survey findings.

The Alaska MCH Data Book is produced by the Section of Women's, Children's and Family Health, MCH Epidemiology Unit. Our mission is to provide the most reliable and statistically accurate information for MCH program planning and evaluation. We believe that programs and policy should be founded and guided by reliable epidemiological data. We trust the Alaska MCH Data Book 2004: PRAMS Edition will be helpful to all who work toward improving the health and well-being of Alaskan families.

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HOW THIS BOOK IS ORGANIZED

We are excited to bring you this second edition of the Alaska MCH Data Book with a focus on PRAMS data. This book builds on the 2003 Data Book by focusing on the four chapters that contained PRAMS data. Within those chapters, we focus on 18 indicators (4 are specific only to Alaska) that are most often requested, that have at least five years of trend data, and that are still a part of the Phase 4 Alaska PRAMS survey – which was implemented starting with 2000 births.

We have taken great strides to format this Data Book with the end-user in mind. Each indicator has at least two spreads that describe it.

- The first spread interprets two types of graphics: the trend line and a regional bar chart. Because health care service delivery in Alaska has agencies that specifically serve the Alaska Native (and Native American) population, the overall trend line and the trend for Alaska Natives will be given for each indicator. Because Alaska has the largest land area of any U.S. state and one of the smallest populations, it is at times difficult to use a statewide estimate for describing a health-related problem in a particular area of the state. We are pleased to provide a bar chart of regional estimates with 95% confidence intervals. The six regions used are the Labor Market Regions used by the Alaska Department of Labor and Workforce Development. (See <http://almis.labor.state.ak.us/>)
- The second spread gives the demographic breakdown of the indicator – with 95% confidence intervals – for 2001, the most recent year of PRAMS data available for analysis. Maternal demographics include race, ethnicity, age, education, and prenatal Medicaid status. At the bottom of the table, the percent missing is noted, in addition to whether that indicator is “core” (data are collected by PRAMS projects in other states) versus “state-specific” (data are unique to Alaska). The question number on Alaska’s Phase 4 survey is given so the reader can see how the question is actually worded. (A copy of Alaska’s Phase 4 survey is included as an appendix for referencing.)

A primary goal of PRAMS is to translate its data into action. Please share with us how you have used the data published here. We also welcome feedback on the usefulness of this format. You may contact the PRAMS staff by e-mail at Kathy_Perham-Hester@health.state.ak.us or by phone at 1-888-269-3470.

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Background

The Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing, population-based surveillance system designed to identify and monitor selected maternal behaviors and experiences that occur before and during a woman's pregnancy and during the early infancy of her child. PRAMS was developed by the Centers for Disease Control and Prevention (CDC) Division of Reproductive Health in 1987 as part of an initiative to reduce infant mortality and low birth weight. The Alaska PRAMS Project was initiated by the State of Alaska, Division of Public Health, Section of Maternal, Child and Family Health in 1990.

PRAMS was designed to supplement data from vital records and to generate data for planning and assessing prenatal health programs in each participating state. Because PRAMS data are population-based, findings from data analyses can be generalized to an entire state's population of women having a live birth. PRAMS is designed not only to generate state-specific data, but also to allow comparisons among states through the use of standardized data collection methods. Findings from PRAMS are meant to be used to enhance understanding of maternal behaviors and their relationship with adverse pregnancy outcomes. PRAMS data can also be used to develop and assess programs and policies designed to identify high-risk pregnancies and reduce adverse pregnancy outcomes.

Currently PRAMS operates in 30 project sites¹ and surveillance covers approximately 60% of all U.S. births. Each site utilizes the same core questions and adds a limited number of its own state-specific questions. Topics covered include family planning; prenatal care; use of tobacco and alcohol; participation in the Supplemental Nutrition Program for Women, Infants and Children (WIC) and Medicaid; payment for care; breastfeeding; physical abuse; and life stressors such as illness, job loss, debt, divorce; plus many other topics.

¹ Alabama, Alaska, Arkansas, Colorado, Florida, Georgia, Hawaii, Illinois, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Nebraska, New Jersey, New Mexico, New York City, New York State, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Texas, Utah, Vermont, Washington, West Virginia.

Overview of PRAMS

Sample Design

All PRAMS participants utilize a sampling technique called “stratified random sampling” in which all birth records are divided into categories, or “strata”. Alaska stratifies by mother’s race and birth weight of the infant (as reported on the birth certificate). These stratification variables are similar to other states. Alaska PRAMS uses the following four strata for sampling purposes: Alaska Native with a low birth weight (LBW) infant (i.e., <2500 grams), Alaska Native with a normal birth weight (NBW) infant (i.e., ≥2500 grams), non-Native with a LBW infant, and non-Native with a NBW infant.

A random sample is then drawn from each of these groups, and the selected mothers are mailed PRAMS surveys. Because a relatively small percentage of the total population of mothers have a LBW infant, a simple random sample may not yield sufficient numbers of responses from these women to tell us about their lifestyles and behaviors as a group. Stratified random sampling provides a means to collect more meaningful information about high-risk population groups. A weighting process is used to recombine the resulting responses to reflect the total population of Alaskan mothers of newborns in a specific time period.

Mode of Surveillance

PRAMS is a mixed-mode surveillance system. The primary data collection method is conducted by mail. Up to three self-administered surveys are mailed to sampled women. Phone interviews are attempted on women who do not respond by mail.

Inclusion criteria

Alaska-resident women of any age (PRAMS does not limit surveys to adults) who have delivered a live birth (in-state) make up the population base for PRAMS. In order that mothers may adequately answer questions about the postpartum period, birth records are eligible for sampling when a minimum of two months (and a maximum of six months) has passed since the date of birth. Subsequent infant deaths are included; grieving letters are mailed out in these situations. When the birth is multiple, one infant is randomly selected. Pending adoptions are included as long as the biological mother is still identified on the birth record.

Sample Size

There are approximately 10,000 live births per year in Alaska, or about 833 live births per month. PRAMS mails out an average of 140 questionnaires per month to mothers who have had a recent live birth. Approximately one of every six mothers of newborns is selected for PRAMS.

Limitations of PRAMS data

Self-reporting: Some bias is expected from any survey based on self-reported information. The potential for under-reporting as well as over-reporting bias must be kept in mind when interpreting results.

Population sampled: PRAMS samples mothers who have recently had a live birth – pregnancies resulting in abortions or stillbirths are not sampled. As such, data do not represent women who became pregnant in the time frame specified, only those who delivered a live-born infant.

Recall bias: Some PRAMS questions ask the respondent to remember events or behaviors up to 12 months before they got pregnant. On average, the infant is 15 weeks old at the time the mother responds to the questionnaire. Mothers who respond to the survey when their infant is younger may recall events more accurately than mothers who respond when their infant is older.

Response rates: Survey response rates may also affect the potential for bias in the data. However, Alaska's survey response rates are very favorable. The overall response rate for 2001 was 83.3%. This was one of the highest response rates of all participating PRAMS states. Stratum-specific response rates for 2001 are shown as follows:

Alaska Native, LBW	78%
Alaska Native, NBW	84%
Non-Native, LBW	79%
Non-Native, NBW	87%
Unknown race or birth weight	75%

Overview of PRAMS

Reliability: The reliability of a prevalence estimate depends on the actual, unweighted number of respondents in a category (not a weighted number). Interpreting and reporting weighted numbers that are based on a small, unweighted number of respondents can be misleading. The degree of precision increases if the sample size is larger and decreases if the sample size is smaller.

In an average year in Alaska...

9,998 babies are born

8,238 begin breastfeeding

5,814 regularly sleep on their backs

4,103 are born as a result of an unintended pregnancy

1,526 are exposed prenatally to tobacco smoke each year[†]

1,033 are born preterm[‡]

567 are born with low or very low birth weight[^]

471 are exposed prenatally to alcohol each year[†]

69 die before their first birthday

[†] Exposure during the last three months of pregnancy

[‡] Babies born at less than 37 weeks gestation

[^] Babies born at less than 2,500 grams

Averages based on data from 1999-2001

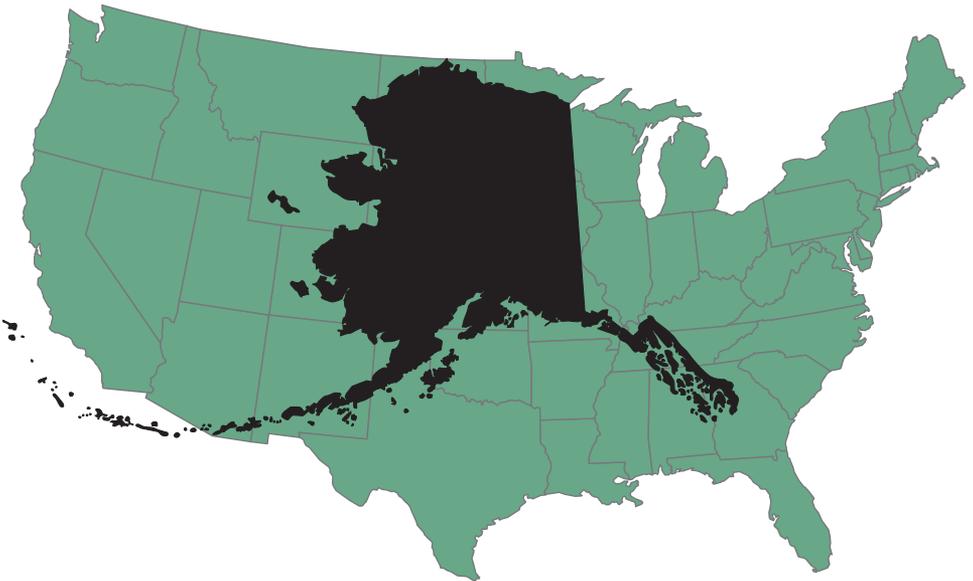
Population Characteristics



Population Size

Geographically the nation's largest state, Alaska makes up approximately 16% of the United States land area, but only 0.2% of the population. The Maternal and Child Health (MCH) population consists of infants, children (ages 1-9), adolescents (ages 10-14), and women of childbearing age (ages 15-44) – comprising nearly 50% of Alaska's population.

- The land area of Alaska is 570,373 square miles – nearly one-fifth the size of the contiguous United States. The 2001 Alaska population is 633,630 – making it one of the least-populated states, ranking 48th.
- Alaska's 2001 MCH population is 14.3% higher than that of the United States. Children ages 1-9 make up 16% of Alaska's population, compared to only 12.5% of the U.S.
- Proportionately, there are nearly 50% more 1-4 year olds in Alaska than the U.S.
- Women of childbearing age make up 22% of Alaska's population, nearly the same as that of the U.S. (21.7%).



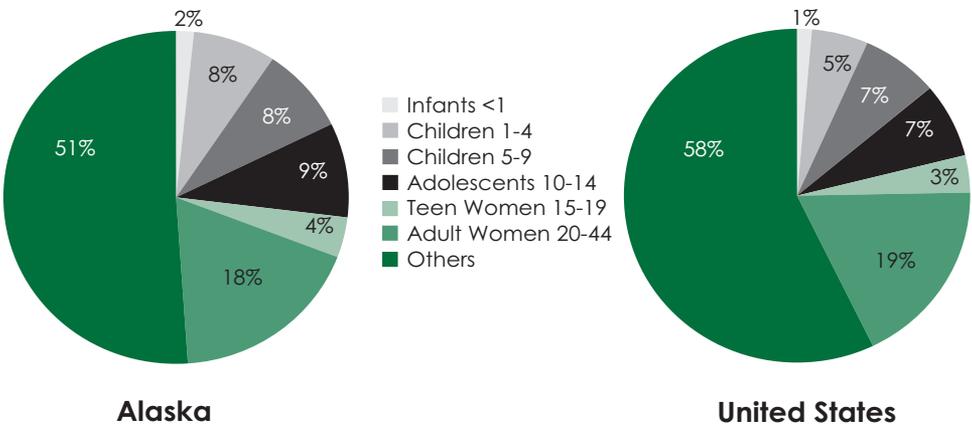
Population Characteristics

Population Composition by Maternal and Child Health Groupings, Alaska and United States, 2001

Maternal and Child Health Population Groupings, Alaska, 2001			
Population Group	Age in Years	Alaska	U.S.
		Population Estimate	Population Estimate
Infants	< 1	10,190	4,025,848
Children	1 - 4	49,865	15,338,019
Children	5 - 9	52,762	20,238,095
Adolescents	10 - 14	57,217	20,881,535
Women of Childbearing Age	15 - 44	140,492	61,734,473
Teen Women	15 - 19	24,723	9,835,228
Adult Women	20 - 44	115,769	51,899,245
Others		323,104	162,875,843
Total Population		633,630	285,093,813

Alaska Source: Alaska Department of Labor and Workforce Development, Research & Analysis Section, Demographics Unit.
 US Source: U.S. Census Bureau, Population Division. Monthly Postcensal Resident Population.
 (See References for full citation)

Maternal and Child Health Populations as a Percent of Total Population, Alaska and United States, 2001



Alaska Source: Alaska Department of Labor and Workforce Development, Research & Analysis Section, Demographics Unit.
 US Source: U.S. Census Bureau, Population Division. Monthly Postcensal Resident Population.
 (See References for full citation)

Population Demographics

Despite its low population density average of 1.1 persons per square mile, Alaska's population was considered 65.6% urban[†] in 2000. In comparison, the United States had a population density average of 81.5 persons per square mile and was considered 79.0% urban[†].¹ According to the Alaska Department of Labor, most Alaskans live in settlements of moderate density surrounded by large tracts of uninhabited land.

Less than 5% of Alaska's population indicated more than one race on the 2000 census. For the information presented here, race is specific to those indicating one race alone on the 2000 census, unless otherwise specified. These population estimates are provided by the Alaska Department of Labor and are based on the 2000 census.

- Whites and Alaska Natives make up the majority of Alaska's population. Whites account for the largest percent of the population (71.0%), while Alaska Natives are the second largest race group, making up 15.8% of the total population.
- Blacks and Asian or Pacific Islanders comprise a very small percent of Alaska's population. Combined they make up less than 10% of the state's total population.
- Alaska has a very small black population, accounting for 3.7% of the total population. The majority live in the Anchorage/Mat-Su (72.5%) and Interior (22.6%) regions.
- Alaska's Hispanic community is quite small – 4.1% of Alaskans, regardless of race, indicate they are of Hispanic ethnicity.
- The Anchorage/Mat-Su region is home to 51.4% of the Alaskan population. Of these, 77.1% are white, 7.3% are Alaska Native, 5.6% are Asian or Pacific Islander, and 5.2% are black. Only 4.9% of the people living in this region indicate they are two or more races.
- The majority of people living in Alaska's Northern and Southwest regions are Alaska Native (75.5% and 69.8%, respectively).

[†]Urban as defined by the 2000 U.S. Census.

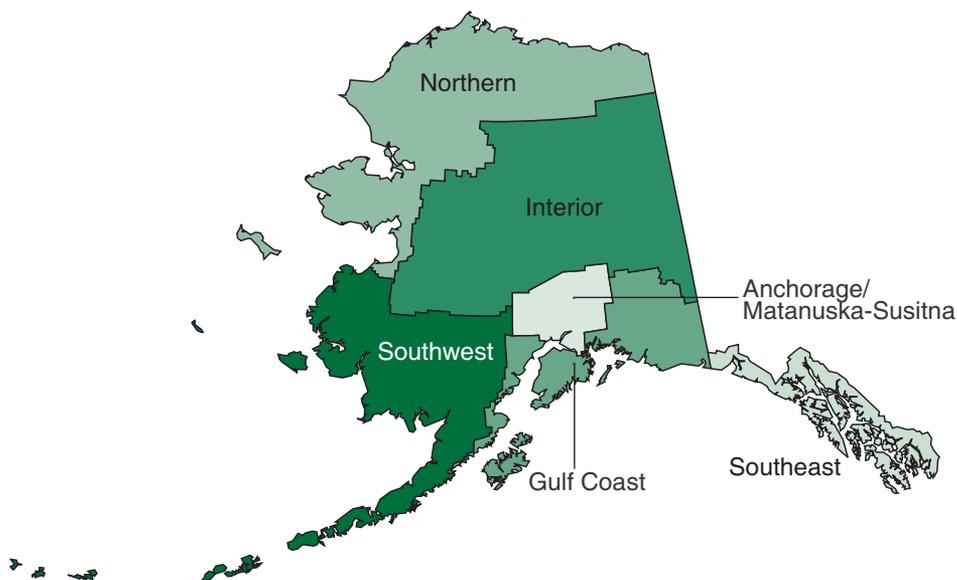
¹ Alaska Population Overview. (See References for full citation)

Population Characteristics

Alaska Population by Race, Ethnicity and Region July 1, 2001

Region	One Race Alone					Two + Races	Hispanic Ethnicity (any race)
	Total	White	Alaska Native	Black	Asian or Pacific Is.		
Anchorage/Mat-Su	325,992	77.1%	7.3%	5.2%	5.6%	4.9%	5.1%
Gulf Coast	74,466	81.1%	9.9%	0.6%	4.6%	3.8%	3.1%
Interior	97,900	76.1%	11.8%	5.4%	2.2%	4.6%	3.8%
Northern	23,819	17.0%	75.5%	0.5%	2.6%	4.5%	1.5%
Southeast	72,275	72.1%	17.3%	0.6%	3.9%	6.2%	2.9%
Southwest	39,178	20.0%	69.8%	0.8%	5.9%	3.5%	3.1%
Alaska (Total)	633,630	71.0%	15.8%	3.7%	4.7%	4.7%	4.1%

Data Source: Alaska Department of Labor and Workforce Development, Research & Analysis Section, Demographics Unit.



Population Growth

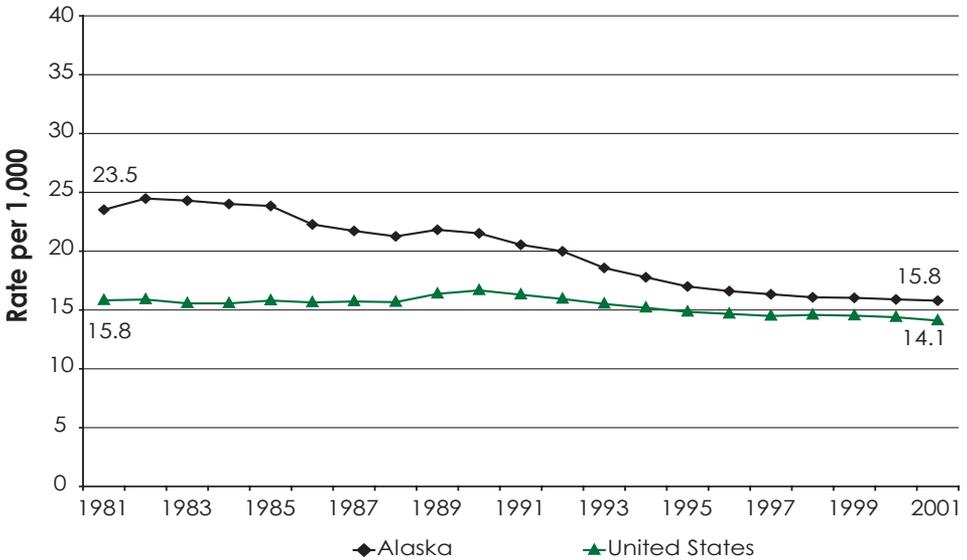
During 1990-2001, Alaska continued an increasing trend in population growth. During this time period, population growth averaged 1.3% annually. Despite the significant declines in birth rates among Alaskans, the major stimulus of Alaska's growth since 1993 has been natural population increase (more births than deaths). Alaska has one of the highest rates of natural population increase in the nation.¹

- Alaska has experienced a significantly decreasing trend in the crude birth rate, with an average annual decline of 2.4% over the last two decades.
- Compared to 1981, there has been a 32.8% decrease in the crude birth rate in Alaska. The national rate has also declined over the last two decades (10.8%).
- In 1981, the crude birth rate was 1.5 times higher than the U.S. rate. In 2001, Alaska's rate was only 12% higher than the U.S. rate.
- Alaska Native women have the highest crude birth rate, 22.5 per 1,000 population – 1.6 times that of whites. Alaska Native women make up 18% of the female population and deliver approximately one-fourth of total Alaskan births.

¹ Alaska Population Overview. (See References for full citation)

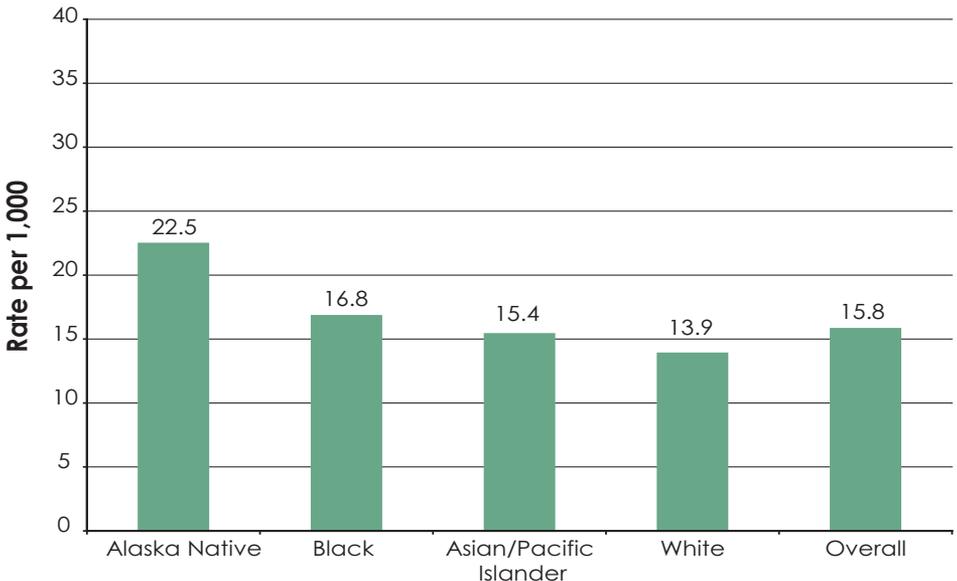
Population Characteristics

Crude Birth Rate by Year Alaska and United States, 1981-2001



Data Source: Alaska Bureau of Vital Statistics; National Center for Health Statistics. Prepared by MCH Epidemiology Unit.

Crude Birth Rate by Race Alaska, 2001



Data Source: Alaska Bureau of Vital Statistics. Prepared by MCH Epidemiology Unit.

PRAMS-Eligible Population

Every year in Alaska, approximately 10,000 infants are born. The PRAMS-eligible population¹ is defined as all state residents who gave birth during the year specified. For Alaska, out-of-state births to Alaska residents were included in the sample through the year 2000. Starting with 2001 births, only in-state births to Alaska residents are eligible to be sampled for PRAMS. PRAMS data are representative of women whose pregnancies resulted in a live birth and are not generalizable to all pregnant women. Since the actual sampled unit is the mother (for survey completion), not the infant, the PRAMS-eligible population is slightly less than the total number of births in the State.

- While the majority of the PRAMS-eligible population (64.4%) were white women, one-fourth (24.7%) were Alaska Native women. Seven percent of the PRAMS-eligible population was Hispanic (any race).
- Nearly half (47.4%) of the PRAMS-eligible population were 25 through 34 years old and 27.9% were 20 through 24 years old.
- Eighty-seven percent (86.5%) of the population had at least a high school education.
- Half of the PRAMS-eligible population resided in the Anchorage/Mat-Su Region. Another 27.2% lived in either the Gulf Coast or Interior Regions. The Northern Region had the lowest percentage of PRAMS-eligible population at 5.3%. (See page 11 for Alaska regional map.)
- Nearly 68% were married at the time they gave birth. Five percent had a low birthweight infant and 36.4% were primiparous.

¹ The figures on the accompanying table are population percentages compiled from state birth certificate data.

Population Characteristics

Characteristics of PRAMS-Eligible Population Alaska, 2001

	Population Size (N)	Percent	Respondents (n)
Maternal Race			
White	6093	64.4	687
Alaska Native	2340	24.7	669
Black	421	4.4	44
Asian or Pacific Islander	613	6.5	66
Maternal Ethnicity			
Hispanic	646	7.3	83
Non-Hispanic	8157	92.7	1261
Maternal Age			
15-19 years	1005	10.5	192
20-24 years	2679	27.9	437
25-34 years	4563	47.4	717
35 years or older	1363	14.2	201
Maternal Education			
<12 years	1251	13.4	243
12 years	4193	45.0	706
>12 years	3869	41.5	520
Maternal Residence			
Anchorage/ Mat-Su	4835	50.5	661
Gulf Coast	973	10.2	142
Interior	1625	17.0	246
Northern	502	5.3	141
Southeast	876	9.1	127
Southwest	759	7.9	231
Marital Status			
Married	6510	67.7	924
Unmarried	3112	32.3	624
Birthweight			
Low (< 2500 g)	458	4.8	296
Normal (≥2500 g)	9138	95.2	1230
Parity			
1st birth	3470	36.4	562
2nd or later	6050	63.6	974
OVERALL	9627	100.0	1550

Socio-Economic Profile

Data from the U.S. Census Bureau indicate that the median annual income for Alaskan households was \$51,571 compared with \$41,994 nationally¹ and that an average of 2.74 persons were living in Alaskan households, while nationally this figure was 2.59.² The socio-economic profile for the PRAMS-eligible population is estimated from PRAMS respondents – as household income, living in a crowded household, and prenatal Medicaid status are not obtainable from the birth certificate itself. Income refers to the previous year's income for the household. Crowded household living is determined by noting whether the ratio of the number of adults and children living in the household divided by the number of rooms exceeds 1. Medicaid is a U.S. government program that provides health care coverage to low income families. Prenatal Medicaid status refers to whether this program paid, at least in part, for prenatal care.

- Nearly forty percent of the population (38.7%) lived in a household that brings in a combined income in excess of \$40,000 annually. Twenty percent of the population (19.6%) estimated their annual income in excess of \$60,000 annually.
- An estimated 2,164 women who delivered a live-born infant in 2001 (approximately one-quarter of the population) had an annual household income of \$15,000 or less.
- At the time of being surveyed, 20.3% of the population was living in a crowded household.
- In 2001, nearly 41% of the population indicated that Medicaid either paid for or helped pay for their prenatal care. This equates to about 4,000 women who delivered a newborn in Alaska in 2001.

¹ U. S. Census Bureau, 2000 Census of Population and Housing, Demographic Profile. State and County Quickfacts. <http://quickfacts.census.gov/qfd/states/02000.html>. 1999 estimates. (03/2005).

² U. S. Census Bureau, 2000 Census of Population and Housing, Demographic Profile. State and County Quickfacts. <http://quickfacts.census.gov/qfd/states/02000.html>. 2000 estimates. (03/2005).

Population Characteristics

Characteristics of PRAMS-Eligible Population (cont'd) Alaska, 2001

	Estimated Population Size	95% CI of Pop'n size	Percent	95% CI of Percent	Respondents (n)
Annual household income					
≤ \$15,000	2164	(1,946 - 2,383)	23.7	(21.3 - 26.0)	413
\$15,001 - \$25,000	1250	(1,069 - 1,431)	13.7	(11.7 - 15.7)	218
\$25,001 - \$40,000	2181	(1,944 - 2,418)	23.9	(21.3 - 26.4)	310
≥ \$40,001	3539	(3,276 - 3,803)	38.7	(35.9 - 41.6)	502

% Missing = 5.1

State-specific; Q84

In crowded household

More than one person per room	1885	(1,688 - 2,082)	20.3	(18.2 - 22.4)	1487
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% Missing = 3.5

Core; Q62, Q63

Prenatal Medicaid status

Medicaid	3877	(3,611 - 4,143)	40.8	(38.1 - 43.6)	713
Non-Medicaid	5618	(5,359 - 5,876)	59.2	(56.4 - 61.9)	807

% Missing = 0.4

Core; Q21

Reproductive Health



Unintended Pregnancies

According to the 1995 National Survey of Family Growth, 31% of all pregnancies resulting in a live birth are unintended.¹ Pregnancy is considered to be unintended when the woman did not want to be pregnant (unwanted) or desired a later pregnancy (mistimed). 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 newborn’s birth outcome.² Behaviors such as delay of prenatal care initiation, inadequate folic acid intake early in the pregnancy, drinking, and tobacco use are examples of behaviors that can affect the health of the mother and her newborn infant. An unintended pregnancy could impact a woman’s choice to adopt healthy prenatal behaviors.² For the information presented here, unintended pregnancies are limited to those that result in a live-born infant.

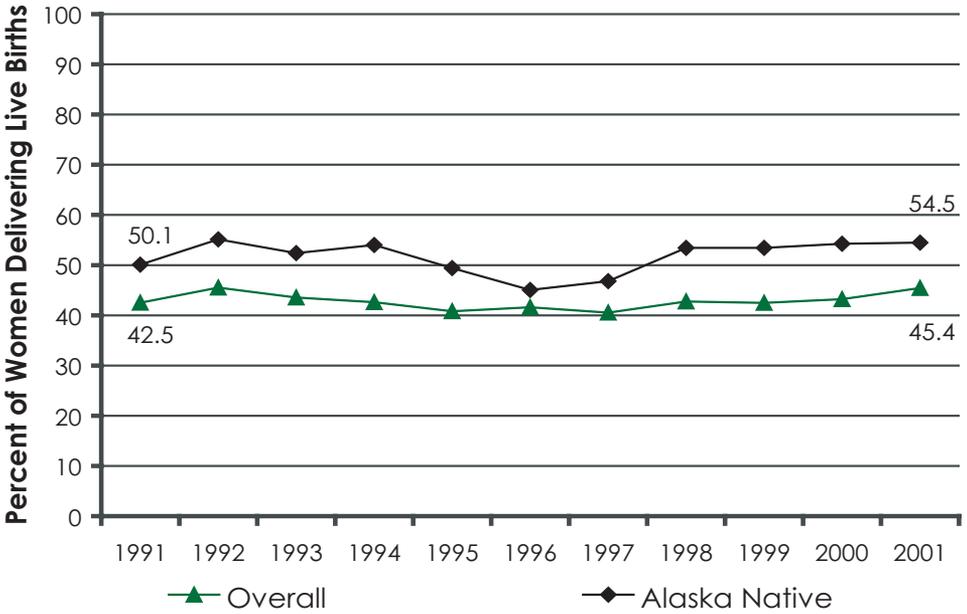
- In Alaska, the prevalence of unintended pregnancies resulting in live births has not changed significantly over the last decade. Compared to 1991, the overall prevalence increased approximately 7% in 2001 – an increase from 42.5% to 45.4%, respectively.
- In 2001, the prevalence of unintended pregnancy was 1.5 times higher than the national goal set by Healthy People 2010 – which is to reduce the prevalence to 30% by the year 2010. To achieve this target, Alaska must reduce the prevalence by 34%.
- Over the last decade, the prevalence of unintended pregnancy among Alaska Natives has been consistently higher than the overall prevalence. In 2001, the prevalence of mistimed or unwanted pregnancies resulting in a live birth was 20% higher among Alaska Natives.
- The Northern and Southwest regions of Alaska had a significantly higher prevalence of unintended pregnancy among women delivering a live birth during 1999-2001 – 54.0% and 53.1%, respectively.

¹ Henshaw SK. Unintended Pregnancy in the United States. *Family Planning Perspectives*; 30(1): 24-29. Jan/Feb 1998.

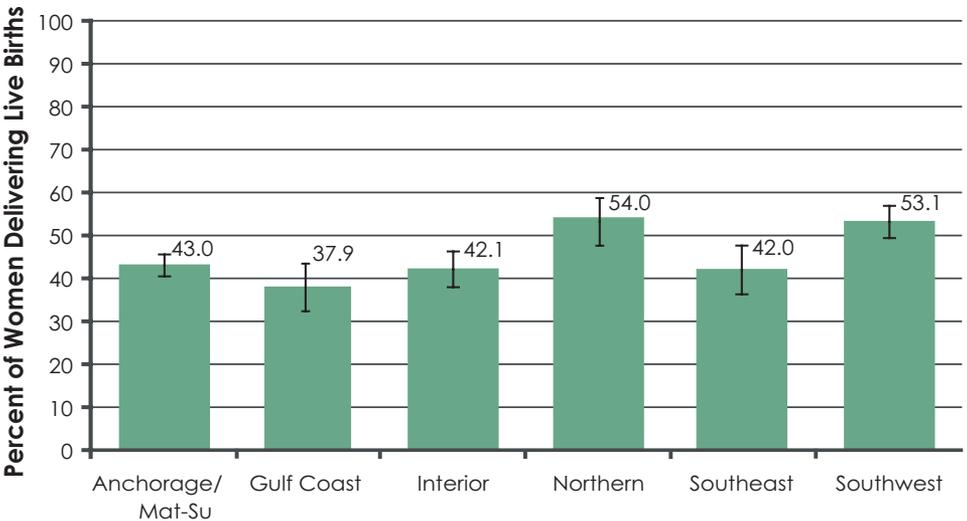
² Kost K, Landry DJ, Darroch JE. Predicting Maternal Behaviors During Pregnancy: Does Intention Status Matter? *Family Planning Perspectives*; 30(2): 79-88. Mar/Apr 1998.

Reproductive Health

Unintended Pregnancies Among Women Delivering Live Births by Race and Year, Alaska, 1991-2001



Unintended Pregnancies Among Women Delivering Live Births by Region, Alaska, 1999-2001



Unintended Pregnancies

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.¹ 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

- White mothers had the lowest prevalence of unintended pregnancy (41.1%) and were significantly less likely to have an unintended pregnancy when compared to Alaska Native and black mothers (54.5% and 59.8%, respectively).
- Among Alaskan women delivering a live-born infant, the prevalence of unintended pregnancy significantly decreased as age increased. Teens, ages 15-19, had the highest prevalence of unintended pregnancy (75.3%) compared to all other age groups.
- Women with less education had an increased risk of having an unintended pregnancy. Alaskan women that did not complete high school were significantly more likely to have an unintended pregnancy than women that completed high school (67.6% and 50.0%, respectively). Compared to women with at least some college education, those that did not finish high school were twice as likely to have an unintended pregnancy.
- Alaskan women that had prenatal care paid for by Medicaid were significantly more likely to have an unintended pregnancy than those who were not served by Medicaid (58.4% and 36.5%, respectively).

¹ The Alan Guttmacher Institute. *Sex and America's Teenagers*. New York, NY: The Institute. 1994.

² Healthy People 2010. (See References for full citation)

Reproductive Health

Prevalence of Unintended Pregnancies Among Women Delivering Live Births by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	41.1	2481	2.0	(37.1 - 45.0)
Alaska Native	54.5	1272	1.7	(51.1 - 57.9)
Black	59.8 *	255	8.0	(44.2 - 75.4)
Asian or Pacific Islander	43.8	239	6.8	(30.5 - 57.1)
Maternal Ethnicity				
Hispanic	58.2	320	6.6	(45.3 - 71.1)
Non-Hispanic	44.1	3593	1.6	(41.0 - 47.2)
Maternal Age				
15-19 years	75.3	706	3.5	(68.5 - 82.2)
20-24 years	58.3	1560	2.7	(53.0 - 63.6)
25-34 years	36.9	1747	2.1	(32.8 - 40.9)
35 years or older	26.1	295	3.6	(19.1 - 33.1)
Maternal Education				
<12 years	67.6	718	3.3	(61.2 - 74.1)
12 years	50.0	2038	2.2	(45.7 - 54.3)
>12 years	34.7	1396	2.3	(30.2 - 39.2)
Prenatal Medicaid Status				
Medicaid	58.4	2220	2.2	(54.2 - 62.7)
Non-Medicaid	36.5	2034	1.9	(32.8 - 40.2)
OVERALL	45.4	4314	1.5	(42.6 - 48.3)

% Missing = 1.4

Core; Q12

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Live Births Despite Use of Birth Control

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.¹ According to a national study, a woman spends three-fourths of her reproductive life trying not to become pregnant.²

- 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 2001, Alaskan teenagers (15-19 years) and women in their early twenties (20-24 years) were at significantly higher risk than older age groups of having a live birth despite use of birth control.
- 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.³
- Although the prevalence of live births among women who were using some form of birth control appeared to be higher for women that did not complete high school, the difference was not statistically significant.
- 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 a payment source for their prenatal care, 33.1% and 22.3%, respectively – nearly 1.5 times higher.

¹ The Alan Guttmacher Institute. *Contraceptive Use*. New York, NY: The Institute. 2004.

² 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. Sep/Oct 1996.

³ The Alan Guttmacher Institute. *Teen Sex and Pregnancy*. New York, NY: The Institute. 1999.

Reproductive Health

Prevalence of Live Births Despite Use of Birth Control by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	26.2	1563	1.8	(22.7 - 29.8)
Alaska Native	26.6	626	1.6	(23.6 - 29.7)
Black	47.4 *	196	8.3	(31.2 - 63.5)
Asian or Pacific Islander	18.6	102	5.2	(8.4 - 28.8)
Maternal Ethnicity				
Hispanic	36.8	202	6.5	(24.1 - 49.4)
Non-Hispanic	26.0	2097	1.4	(23.2 - 28.8)
Maternal Age				
15-19 years	38.8	361	4.2	(30.6 - 47.0)
20-24 years	31.3	835	2.5	(26.4 - 36.3)
25-34 years	22.7	1062	1.8	(19.1 - 26.3)
35 years or older	22.3	256	3.6	(15.2 - 29.4)
Maternal Education				
<12 years	32.0	337	3.4	(25.3 - 38.7)
12 years	26.5	1075	2.0	(22.6 - 30.3)
>12 years	23.8	943	2.1	(19.7 - 27.9)
Prenatal Medicaid Status				
Medicaid	33.1	1251	2.1	(28.9 - 37.2)
Non-Medicaid	22.3	1226	1.7	(19.0 - 25.5)
OVERALL	26.7	2518	1.3	(24.1 - 29.3)

% Missing = 2.1

Core; Q14

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Prenatal Health



Medicaid Coverage

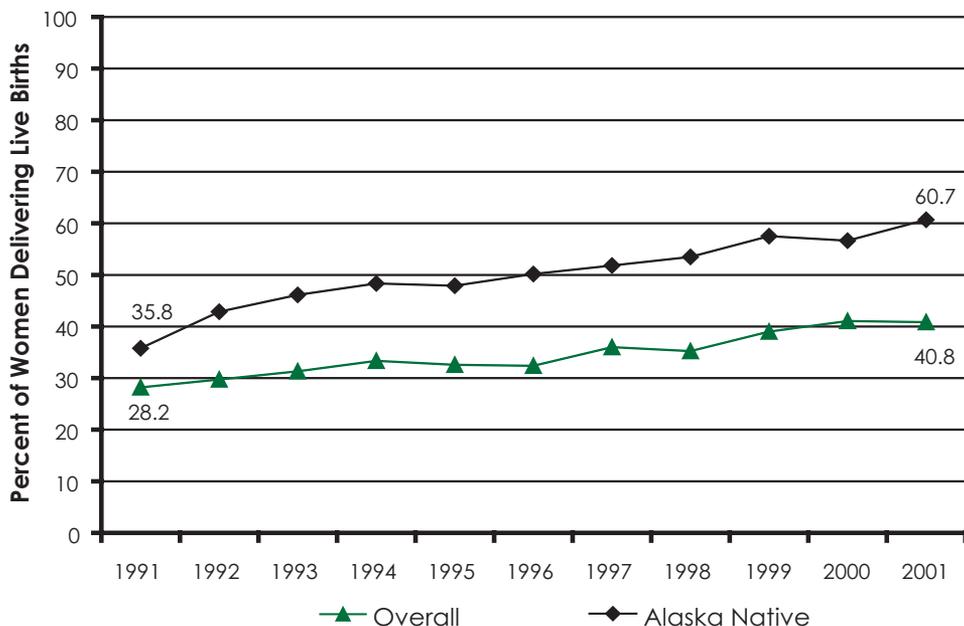
Medicaid is the health insurance program for the poor in the United States. During the 1980s, the U.S. Congress authorized states to expand Medicaid to include pregnant women who were formerly ineligible for Medicaid Services. The Children's Health Insurance Program for the State of Alaska, Denali KidCare, was implemented on March 1, 1999 and represented the biggest expansion of the Medicaid program in Alaska. In addition to expanding eligibility for children's health services, Denali KidCare expanded coverage to pregnant women. These changes resulted in a state health insurance program that covered not only low income – but moderate income – women in an effort to improve prenatal care and ultimately, adverse pregnancy outcomes.

- Medicaid coverage of prenatal care in Alaska has been steadily increasing over the past decade. Almost 41% of women who delivered a live birth in 2001 indicated that Medicaid had paid for at least some of their prenatal care.
- Between 1993 and 1999, Alaska was the only PRAMS state to demonstrate a statistically significant increase in the proportion of women who delivered a live birth who received Medicaid coverage during their pregnancy.¹ During the same time period, six states showed a statistically significant decrease in prenatal Medicaid coverage.
- Between 1991 and 2001, the prevalence of Medicaid coverage for prenatal care was consistently higher for Alaska Native women than for Alaskan women overall.
- Reported prenatal Medicaid coverage does not appear to be correlated geographically with the prevalence of pregnancy risk factors. For example, between the two regions with consistently higher prevalences of pregnancy risk behaviors, the Southwest had the highest (68.8%), and the Northern region had the second lowest prevalence (36.4%) of Medicaid coverage for pregnancy and childbirth.

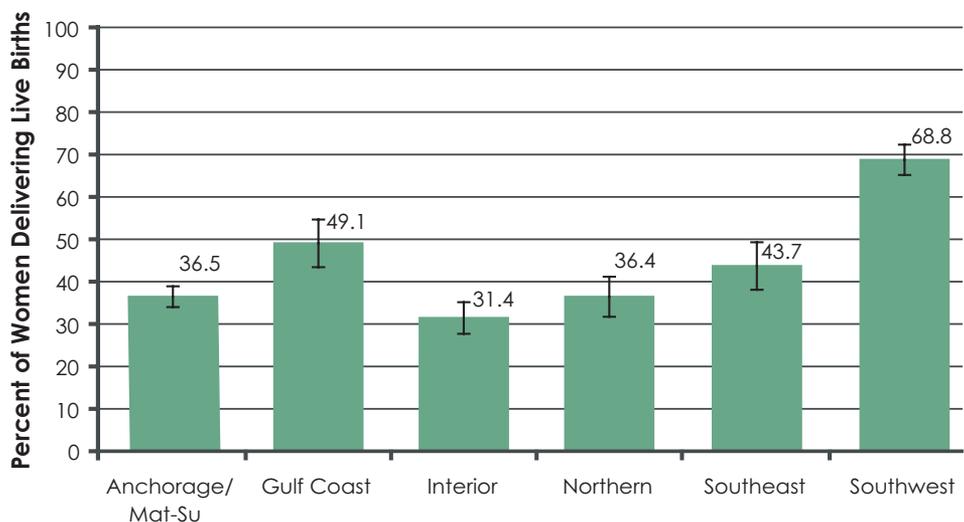
¹ PRAMS 1999 Surveillance Report. (See References for full citation)

Prenatal Health: Protective Behaviors

Medicaid Coverage for Prenatal Care by Race and Year
Alaska, 1991-2001



Medicaid Coverage for Prenatal Care by Region
Alaska, 1999-2001



Medicaid Coverage

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.¹ Across the country, state budget cutting policies implemented in 2003-2004 have resulted in reduced expenditures in Medicaid and other health insurance programs, including the State Children's Health Insurance Program (Alaska's Denali KidCare). Effective in 2004, Alaska reduced the eligibility limit from 200% of the poverty level to 175% and removed the inflation adjustment in the income limit. The result is that the eligibility level will fall below 175% of the poverty line in the future. Comparison of annual PRAMS data will help Alaska define impacts of Medicaid budget cuts to pregnant women.

- Alaska Natives were the most likely race group to use Medicaid to help pay for the medical costs of pregnancy (60.7%). White women were the least likely race group to use Medicaid, but Medicaid usage is still high in this group with over one-third of white women who delivered a live birth reporting that they used Medicaid to pay for at least some of the costs of their most recent pregnancy.
- The youngest Alaskan mothers were the most likely to use Medicaid, with well over half (67.2%) of teenagers and 49.3% of 20-24 year olds relying on Medicaid to help pay for their prenatal care and delivery. Almost one quarter of older mothers (ages 35 or older) used Medicaid as their insurance.
- Over one quarter (25.5%) of Alaskan women with more than a high school education used Medicaid to help pay for their prenatal care and delivery.

¹ PRAMS 1999 Surveillance Report. (See References for full citation)

Prenatal Health: Protective Behaviors

Prevalence of Medicaid Coverage for Prenatal Care by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	33.0	1999	1.9	(29.3 - 36.8)
Alaska Native	60.7	1420	1.7	(57.3 - 64.0)
Black	42.8 *	183	8.1	(27.0 - 58.6)
Asian or Pacific Islander	36.8	196	6.7	(23.7 - 49.9)
Maternal Ethnicity				
Hispanic	41.4	231	6.5	(28.8 - 54.0)
Non-Hispanic	39.5	3216	1.5	(36.5 - 42.5)
Maternal Age				
15-19 years	67.2	626	3.9	(59.5 - 74.9)
20-24 years	49.3	1311	2.8	(43.9 - 54.7)
25-34 years	35.0	1666	2.0	(31.1 - 38.8)
35 years or older	23.5	266	3.3	(17.1 - 30.0)
Maternal Education				
<12 years	72.3	771	3.2	(66.0 - 78.6)
12 years	46.7	1900	2.2	(42.5 - 51.0)
>12 years	25.5	1026	2.1	(21.4 - 29.5)
OVERALL	40.8	3877	1.4	(38.1 - 43.6)

% Missing = 0.4

Core; Q21

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

WIC Participation

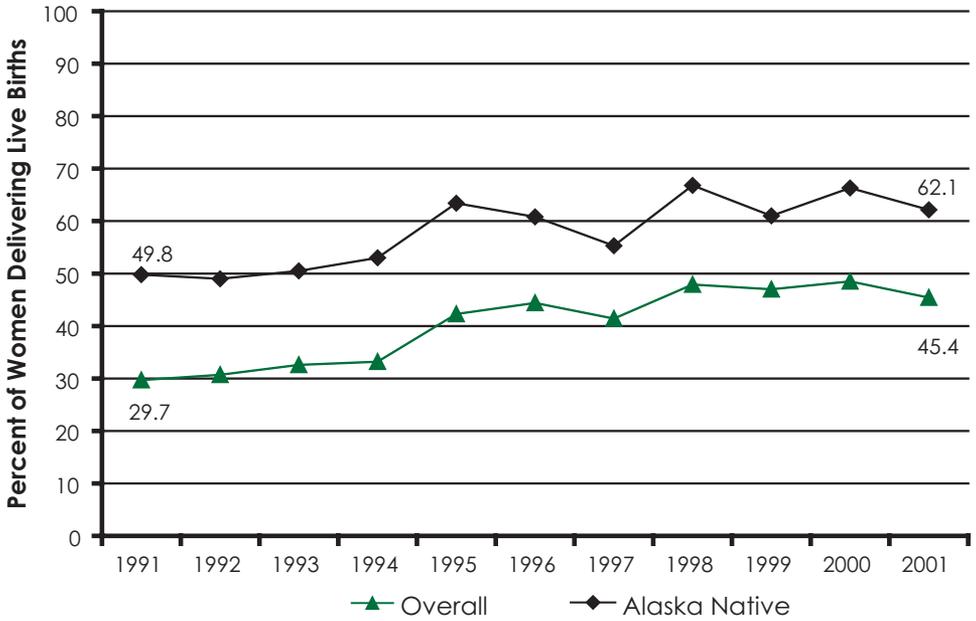
Many low-income families in the State of Alaska receive nutritional support through the Supplemental Nutrition Program for Women, Infants and Children (WIC). WIC provides nutrition counseling, monthly dietary supplementation, food vouchers, growth assessments, and referrals to eligible women and children from birth to 5 years of age. Low income pregnant, postpartum and lactating women are eligible for WIC and qualifying women make up about a quarter of WIC participants nationally.

- Forty-five percent of Alaskan women who had a baby during 2001 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%.
- Between 1993 and 1999, Alaska was one of two PRAMS states to show a statistically significant increase in prenatal WIC participation. In 1999, Alaska's prevalence of prenatal WIC participation (47.0%) ranked at the median level among 17 PRAMS states (range: 29.8% - 58.3%).¹
- A majority (62.1%) of Alaska Native women who delivered in 2001 participated in prenatal WIC nutritional services. Alaska Natives have consistently shown higher levels of prenatal WIC participation.
- A slightly larger proportion of Alaskan women who had recently had a baby used WIC during their pregnancy than used Medicaid. Unlike Medicaid coverage for prenatal care, prenatal WIC participation appears to correlate geographically with a higher regional prevalence of pregnancy risk factors (as seen in the Northern and Southwest regions).
- Women from the Southeast region were least likely to participate in WIC prenatally, yet the participation level was still high – almost 40% of Southeast resident women who delivered a baby between 1999 and 2001.

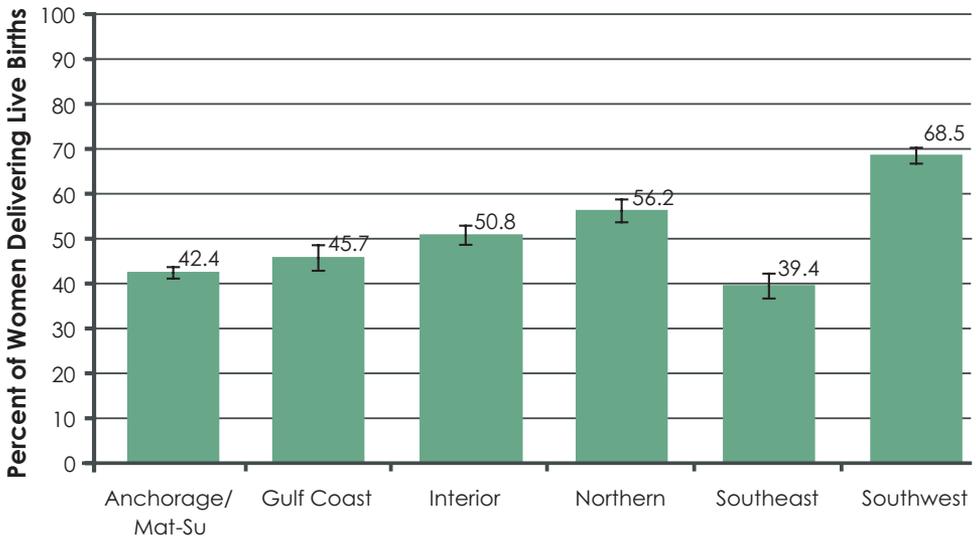
¹ PRAMS 1999 Surveillance Report. (See References for full citation)

Prenatal Health: Protective Behaviors

Prenatal WIC Participation by Race and Year
Alaska, 1991-2001



Prenatal WIC Participation by Region
Alaska, 1999-2001



WIC Participation

WIC promotes breastfeeding, immunization and good nutrition, and refers women to appropriate medical and social services. PRAMS data may be helpful in examining the characteristics of WIC participants, identifying target groups for educational interventions and for looking at the prevalence of important behaviors and pregnancy risks by prenatal WIC participation status.

- The majority of Alaska Native and black women who delivered a live birth in 2001 participated in WIC during their pregnancy (62.1% and 69.1%, respectively). Over one-third of white women and Asian or Pacific Islander women who delivered a live birth in 2001 participated in WIC. More Hispanic women than non-Hispanics participated in WIC prenatally.
- Younger mothers were far more likely than older mothers to participate in WIC during pregnancy. Teenage mothers were 3 times as likely to use WIC services than mothers ages 35 or older and nearly twice as likely to use WIC services as mothers ages 25 or older.
- WIC is an important source of prenatal assistance for Alaskan mothers. In 2001, almost three-quarters of Alaskan mothers with less than 12 years of education participated in WIC prenatally. While prenatal WIC participation declined as education levels increased, almost one-third of women with more than 12 years of education participated in WIC prenatally.
- Over one-quarter of mothers who did not use Medicaid to help pay for their prenatal care in 2001 participated in WIC during their pregnancy.

Prenatal Health: Protective Behaviors

Prevalence of Prenatal WIC Participation by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	37.7	2278	2.0	(33.8 - 41.6)
Alaska Native	62.1	1476	1.7	(58.8 - 65.4)
Black	69.1 *	295	7.5	(54.5 - 83.7)
Asian or Pacific Islander	37.5	210	6.5	(24.7 - 50.3)
Maternal Ethnicity				
Hispanic	53.1	292	6.6	(40.1 - 66.1)
Non-Hispanic	44.2	3612	1.6	(41.1 - 47.2)
Maternal Age				
15-19 years	65.6	622	4.0	(57.7 - 73.4)
20-24 years	63.2	1681	2.7	(58.0 - 68.4)
25-34 years	37.1	1765	2.0	(33.1 - 41.0)
35 years or older	22.0	256	3.1	(15.9 - 28.0)
Maternal Education				
<12 years	73.3	775	3.0	(67.4 - 79.2)
12 years	52.6	2159	2.2	(48.3 - 56.8)
>12 years	30.6	1236	2.2	(26.3 - 35.0)
Prenatal Medicaid Status				
Medicaid	73.4	2830	1.9	(69.6 - 77.1)
Non-Medicaid	26.5	1472	1.7	(23.1 - 29.8)
OVERALL	45.4	4333	1.4	(42.6 - 48.2)

% Missing = 0.9

Core; Q24

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Folic Acid Knowledge

The B vitamin folic acid plays an important role in the prevention of serious birth defects that affect the developing infant's spine and nervous system. Research has shown that 50% to 70% of these neural tube birth defects (NTDs) could be prevented if all women of childbearing age consumed adequate amounts of folic acid. In 1992 the U.S. Centers for Disease Control and Prevention issued the recommendation that all women consume at least 400 micrograms of folic acid daily.¹ Since then, numerous public education campaigns have sought to increase women's knowledge of the benefits of folic acid supplementation. Alaska's Folic Acid Coalition² has promoted folic acid awareness through the "Folic Acid for a Healthy Return" campaign since 1999. During 1996 through 2000, an average of nine Alaskan babies were born annually with NTDs that might have been prevented by taking folic acid.³

- Folic acid knowledge among Alaskan mothers is increasing. The proportion of women who indicated that they knew about the benefits of folic acid increased from 63.0% in 1996 to 80.5% in 2001.
- The proportion of Alaska Native mothers who knew about the benefits of folic acid increased by 60% between 1996 and 2001. While the prevalence of folic acid knowledge among Alaska Native mothers of newborns was still substantially lower than overall levels, the gap in knowledge between Alaska Natives and Alaskan mothers overall appears to be closing.
- Women in the Northern and Southwest regions of Alaska were the least likely to know about the benefits of folic acid; however, folic acid knowledge was high in other regions of the state. Among women who had a baby in 2001, over 80% of women in Anchorage/Mat-Su, the Gulf Coast, Interior and Southeast regions knew about folic acid benefits.

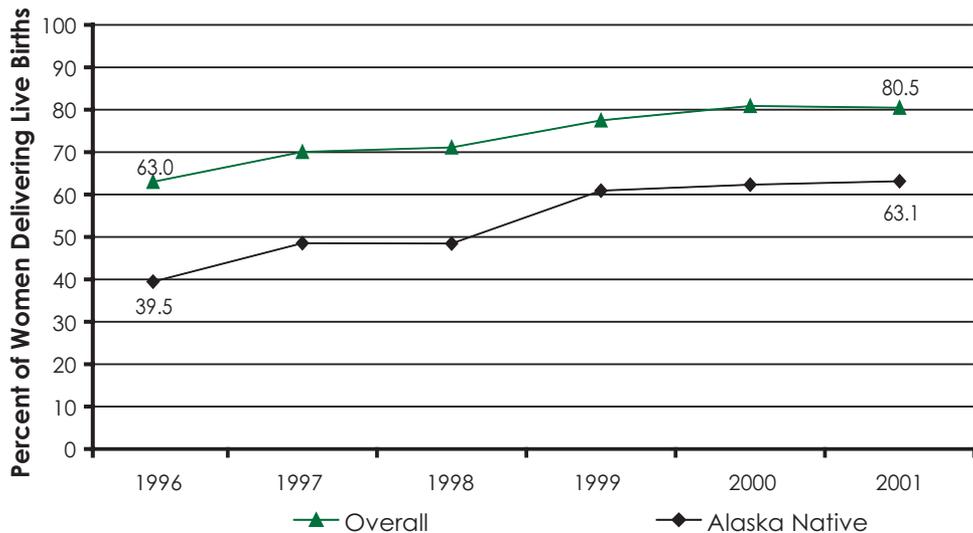
¹ Acuna J, Yoon P, Ericson D. The Prevention of Neural Tube Defects with Folic Acid. Centers for Disease Control and Prevention and Pan American Health Organization. Sep 2003. <http://www.cdc.gov/doc.do/id/0900f3ec8001946f>.

² March of Dimes, Alaska Chapter. Folic Acid for a Healthy Return. http://www.modimes.org/alaska/4908_8520.asp. (10/2004).

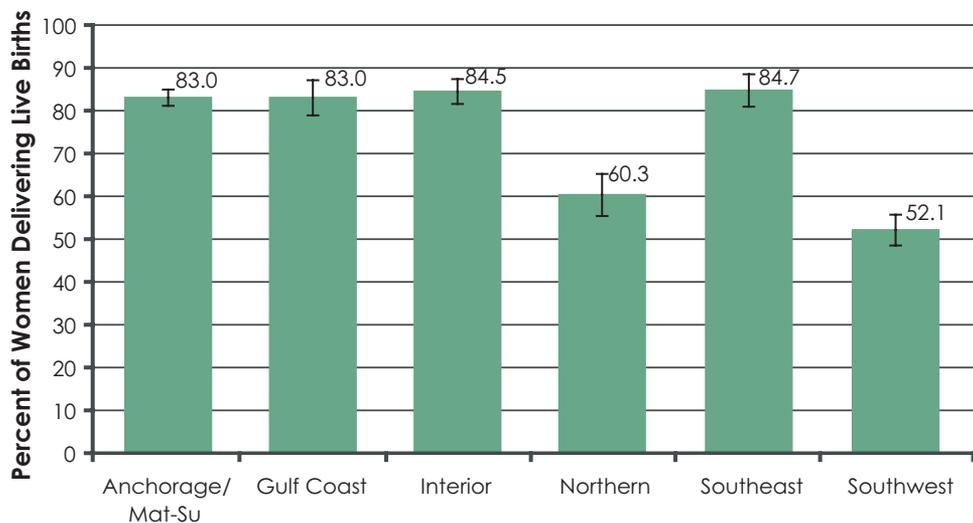
³ State of Alaska, Department of Health and Social Services, Division of Public Health. MCH Epidemiology Website. Healthy Alaskans 2010. Objectives for Maternal and Child Health. Reduce the Occurrence of Spina Bifida and Other Neural Tube Defects. <http://www.epi.hss.state.ak.us/mchepi/indicators/ha2010/mch/update/obj11615.htm>. (10/2004).

Prenatal Health: Protective Behaviors

Knowledge of Folic Acid Benefits by Race and Year
Alaska, 1996-2001



Knowledge of Folic Acid Benefits by Region
Alaska, 1999-2001



Folic Acid Knowledge

Because the developing infant's spine and brain are already formed by the time most women realize they are pregnant, folic acid is most protective if women have adequate amounts in their systems before becoming pregnant. For this reason, and because up to half of pregnancies in the U.S. are not planned, women should take multivitamins even if they are not planning to become pregnant. In 1998, mandatory fortification of cereal products was implemented in the United States. Studies have shown a subsequent decline in the annual number of births affected by neural tube defects (NTDs). To reduce further the number of NTD-affected pregnancies, all women capable of becoming pregnant should follow the U.S. Public Health Service recommendation to consume 400 micrograms of folic acid daily.¹

- In 2001, knowledge about the benefits of folic acid was highest among white mothers (89.9%) and lowest among Asian or Pacific Islander mothers (59.6%). Just over 63% of Alaska Native mothers were knowledgeable about folic acid benefits.
- The older the mother, the more likely she was to know about the benefits of folic acid. Over 80% of mothers over age 25 knew about folic acid benefits compared to just over half of teenage mothers.
- Alaskan mothers with more than a high school education and women who used non-Medicaid sources to pay for their pregnancy costs were more likely to know about the benefits of folic acid.
- According to a survey conducted by the Alaska Birth Defects Registry, 41% of Alaskan women hear about folic acid from their doctor or other health care provider, but more women (70%) report hearing about folic acid benefits from a newspaper or magazine.²
- National data shows that although 88% of women report that they would take a multivitamin if it were recommended by their health care provider, only 37% report that their current health care provider made this recommendation to them.¹

¹ Center for Disease Control and Prevention. Spina Bifida and Anencephaly Before and After Folic Acid Mandate – United States, 1995-1996 and 1999-2000. MMWR; 53(17): 362-365. May 2004. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5317a3.htm>.

² State of Alaska, Department of Health and Social Services, Maternal and Child Health Epidemiology. Folic Acid Knowledge and Use in Alaska. Alaska MCH Facts: Women's Health 1(2). Aug 2002. <http://www.epi.alaska.gov/mchepi/MCHFacts/Vol1No2.pdf>.

Prenatal Health: Protective Behaviors

Prevalence of Knowledge of Folic Acid Benefits by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	89.9	5399	1.2	(87.5 - 92.3)
Alaska Native	63.1	1477	1.7	(59.8 - 66.4)
Black	67.4 *	286	7.7	(52.3 - 82.4)
Asian or Pacific Islander	59.6	311	6.9	(46.0 - 73.1)
Maternal Ethnicity				
Hispanic	76.7	419	5.6	(65.8 - 87.6)
Non-Hispanic	81.5	6585	1.2	(79.3 - 83.8)
Maternal Age				
15-19 years	55.7	519	4.1	(47.6 - 63.8)
20-24 years	77.2	2038	2.2	(72.9 - 81.5)
25-34 years	85.9	4056	1.3	(83.2 - 88.5)
35 years or older	86.0	970	2.5	(81.0 - 90.9)
Maternal Education				
<12 years	55.3	585	3.6	(48.3 - 62.4)
12 years	76.2	3081	1.7	(72.8 - 79.6)
>12 years	91.8	3659	1.3	(89.2 - 94.3)
Prenatal Medicaid Status				
Medicaid	73.9	2816	1.8	(70.3 - 77.4)
Non-Medicaid	85.7	4720	1.3	(83.1 - 88.2)
OVERALL	80.5	7592	1.1	(78.4 - 82.6)

% Missing = 2.0

State-specific; Q23

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Physical Abuse by Husband/Partner

Domestic violence is a serious public health concern for Alaskans. The relevance of PRAMS data on intimate partner abuse during pregnancy is emphasized by a 2004 report published by the Violence Policy Center that puts Alaska ahead of all other states in the rate at which men kill women.¹ Current or former intimate partners committed over half of these homicides. Among 17 states who participated in PRAMS in 1999, the prevalence of prenatal physical abuse by a husband or partner ranged from 2.1% to 6.3%. No significant trends were noted for any of the reporting states between 1991 and 1999.²

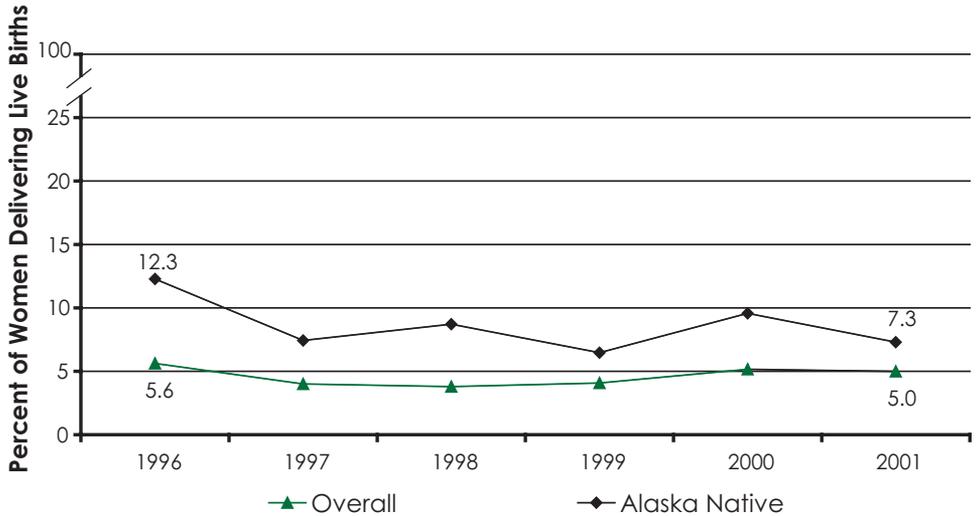
- Overall, 5.0% of Alaskan women reported physical abuse by an intimate partner during their most recent pregnancy in 2001. While the overall prevalence has remained relatively stable since 1996, prenatal physical abuse declined by 41% for Alaska Natives between 1996 and 2001.
- Women were more likely to have reported prenatal physical abuse by a husband or partner if they were from the Northern or Southwest regions. The Interior region reported the lowest prevalence (3.8%).
- Based on PRAMS data, intimate partner physical abuse against pregnant women appears to be far less common than pre-pregnancy abuse. The proportion of Alaskan women who experienced physical abuse by anyone in the 12 months prior to pregnancy was 80% higher than the proportion of new mothers who reported prenatal intimate partner abuse in 2001.

¹ Anchorage Daily News. State No. 1 in Rate of Women Killed by Men. Front page. October 5, 2004.

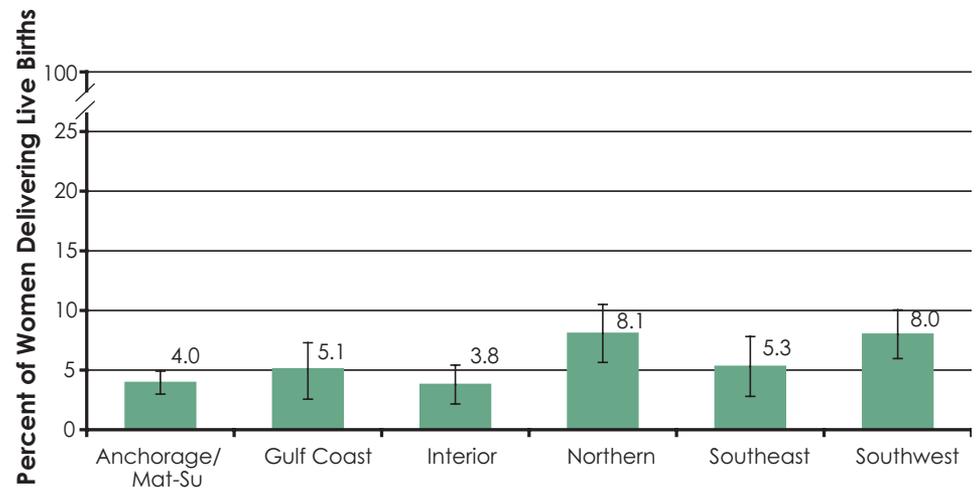
² PRAMS 1999 Surveillance Report. (See References for full citation)

Prenatal Health: Risk Behaviors

Prenatal Physical Abuse by Husband/Partner by Race and Year, Alaska, 1996-2001



Prenatal Physical Abuse by Husband/Partner by Region Alaska, 1999-2001



Physical Abuse by Husband/Partner

Physical abuse during pregnancy puts women at risk for fetal loss and injury, early onset of labor, preterm delivery, having a low birth weight infant, maternal antepartum hemorrhage, and rupture of the uterus. Prenatal abuse has also been associated with late entry into prenatal care and other risk behaviors such as smoking and substance abuse during pregnancy.^{1,2} Prevention of intimate partner violence may depend on effective screening and referral by a broad-based coalition of health, social and law enforcement services as well as improved accessibility and availability of specialized treatment.

- All race groups were at risk for experiencing physical abuse by an intimate partner during pregnancy, but blacks and Alaska Natives appeared to be at higher risk than whites or Asian or Pacific Islanders.
- Many studies have addressed the higher risk of prenatal physical abuse for teenage mothers.² In 2001, the prevalence of intimate partner prenatal physical abuse for Alaskan teenage mothers was 2 times that of 25-34 year olds and 4 times that of mothers ages 35 or older.
- Although physical abuse occurs in all economic classes, indicators of lower socio-economic status are associated with higher rates of physical violence.¹ In Alaska, both maternal education and prenatal Medicaid status were associated with prenatal abuse.
- In 2001, the prevalence of prenatal physical abuse among women who used Medicaid to help pay for their pregnancies was 3 times that of non-Medicaid recipients.

¹ PRAMS 1999 Surveillance Report. (See References for full citation)

² Gessner BD, Perham Hester KA. Experience of Violence Among Teenage Mothers in Alaska. *Journal of Adolescent Health*; 22(5):383-388. May 1998.

Prenatal Health: Risk Behaviors

Prevalence of Prenatal Physical Abuse by Husband/Partner by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	3.2	194	0.7	(1.8 - 4.6)
Alaska Native	7.3	172	0.9	(5.5 - 9.1)
Black	19.1*	81	6.5	(6.3 - 31.8)
Asian or Pacific Islander	2.6	15	2.2	(0.0 - 7.0)
Maternal Ethnicity				
Hispanic	7.5	41	3.8	(0.0 - 15.0)
Non-Hispanic	4.9	398	0.7	(3.6 - 6.2)
Maternal Age				
15-19 years	8.2	76	2.4	(3.4 - 13.0)
20-24 years	7.0	187	1.4	(4.3 - 9.6)
25-34 years	4.0	193	0.8	(2.4 - 5.6)
35 years or older	1.8	20	1.0	(0.0 - 3.8)
Maternal Education				
<12 years	7.6	81	2.1	(3.5 - 11.8)
12 years	5.8	237	1.0	(3.8 - 7.7)
>12 years	3.5	143	0.9	(1.8 - 5.2)
Prenatal Medicaid Status				
Medicaid	8.4	323	1.3	(5.9 - 10.9)
Non-Medicaid	2.7	150	0.6	(1.6 - 3.8)
OVERALL	5.0	477	0.6	(3.8 - 6.2)

% Missing = 0.7

Core; Q36a

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Prenatal Alcohol Use

According to a recent national survey, 9.1% of pregnant women in the United States drank alcohol in the past month and 5.3% drank during the last trimester of pregnancy.¹ In 2001, the overall prevalence in Alaska was not significantly different from the nation – with 5.2% of Alaskan women drinking during the last three months of their most recent pregnancy. From 1993-1999, Alaska was one of seven PRAMS states to experience a significant decline in prenatal alcohol use.² For the Alaska PRAMS data presented here, prenatal alcohol use is limited to the last three months of pregnancy.

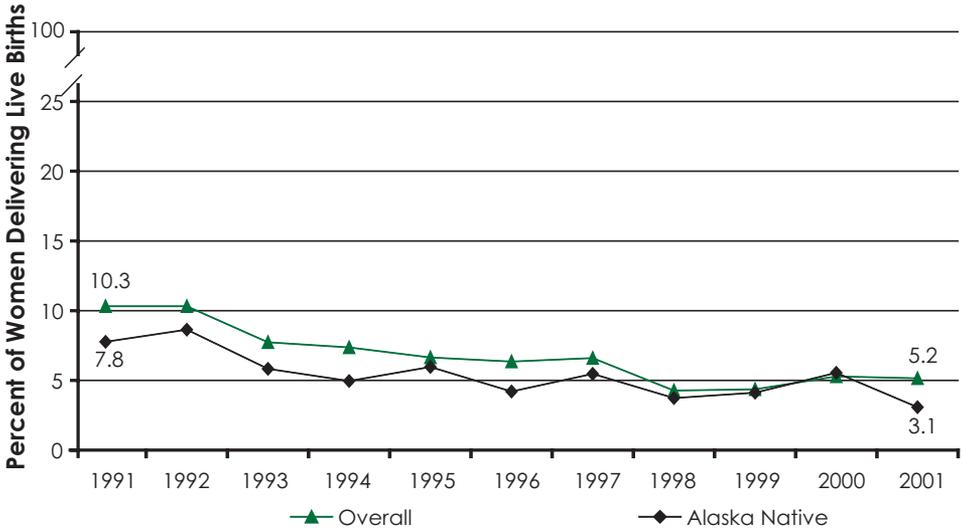
- Over the last decade, there has been a significant decline in prenatal alcohol use in Alaska. Since 1998, prenatal alcohol use in Alaska has remained lower than the Healthy People 2010 target of reducing prenatal alcohol use to less than 6%. The overall prevalence of prenatal alcohol use in Alaska has not yet met the Healthy Alaskan 2010 target of 3.5%, however, Alaska Native mothers achieved this goal in 2001.
- The prevalence of prenatal alcohol use among Alaska Native mothers has significantly declined over the last decade – a decrease of more than 60% from 1991 to 2001 (7.8% to 3.1%, respectively).
- Analysis of regional data for 1999-2001 showed that there was no statistically significant difference in the prevalence of prenatal alcohol use between any of the Alaskan regions.
- The Southeast region had the lowest prevalence of prenatal alcohol use (2.5%) and the Northern region had the highest. At 5.9%, the prevalence of prenatal alcohol use in the Northern region still met the Healthy People 2010 target of 6%.

¹ National Survey on Drug Use and Health. (See References for full citation)

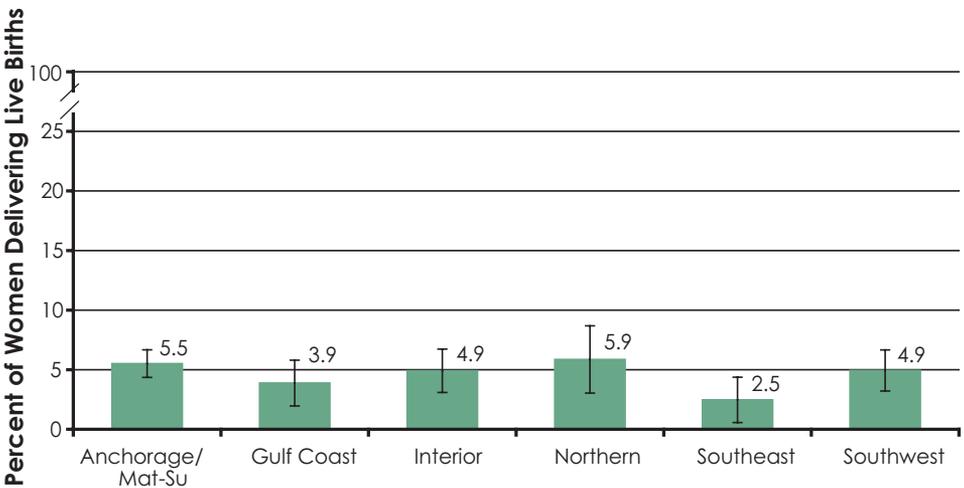
² PRAMS 1999 Surveillance Report. (See References for full citation)

Prenatal Health: Risk Behaviors

Any Prenatal Alcohol Use (last 3 months) by Race and Year, Alaska, 1991-2001



Any Prenatal Alcohol Use (last 3 months) by Region
Alaska, 1999-2001



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).^{1,2} It is also the leading preventable cause of birth defects and mental retardation. 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.

- In 2001, the prevalence of prenatal alcohol use during the last three months of pregnancy was 6.7% among white mothers in Alaska – more than 20% higher than the State average.
- White mothers were significantly more likely than any other race group to drink alcohol during the last three months of pregnancy – more than twice as likely as Alaska Native mothers.
- Although it appeared that the prevalence of prenatal alcohol use increased with maternal age and education level, the differences were not significant.
- 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.³

¹ Healthy People 2010. (See References for full citation)

² Stratton K, Howe C, Battaglia F, eds. Fetal Alcohol Syndrome: Diagnosis, Epidemiology, Prevention, and Treatment. Washington, DC: National Academy Press. 1996.

³ Alaska MCH Data Book 2003, pp 50-51. (See References for full citation)

Prenatal Health: Risk Behaviors

Prevalence of Any Prenatal Alcohol Use (last 3 months) by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	6.7	400	1.0	(4.7 - 8.7)
Alaska Native	3.1	71	0.6	(2.0 - 4.2)
Black	0.5 *	2	0.3	(0.0 - 1.2)
Asian or Pacific Islander	0.0 ^	0	--	--
Maternal Ethnicity				
Hispanic	5.4	29	3.3	(0.0 - 11.8)
Non-Hispanic	5.2	419	0.7	(3.7 - 6.6)
Maternal Age				
15-19 years	2.9	27	1.6	(0.0 - 6.0)
20-24 years	2.8	74	1.0	(0.9 - 4.7)
25-34 years	5.8	276	1.0	(3.9 - 7.8)
35 years or older	9.4	109	2.5	(4.4 - 14.4)
Maternal Education				
<12 years	3.0	32	1.2	(0.7 - 5.3)
12 years	4.4	180	0.9	(2.6 - 6.2)
>12 years	6.4	253	1.2	(4.0 - 8.7)
Prenatal Medicaid Status				
Medicaid	4.0	152	0.9	(2.3 - 5.7)
Non-Medicaid	5.9	326	1.0	(4.0 - 7.8)
OVERALL	5.2	485	0.7	(3.8 - 6.5)

% Missing = 2.1

Core; Q33a

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

^ No respondents reported this indicator.

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 births.^{1,2} Smoking during pregnancy is associated with infant mortality, miscarriages, preterm delivery, Sudden Infant Death Syndrome (SIDS), and respiratory problems in newborns.³ For the information presented here, prenatal tobacco use is limited to the last three months of pregnancy.

- Over the last decade, the trend in prenatal tobacco use has significantly declined in Alaska. Compared to 1991, the prevalence in 2001 has decreased nearly 40% for the State and 12% for Alaska Natives.
- 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.
- 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 more likely than women from the Interior (11.2%) regions to smoke during their pregnancy.
- 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

¹ Healthy People 2010. (See References for full citation)

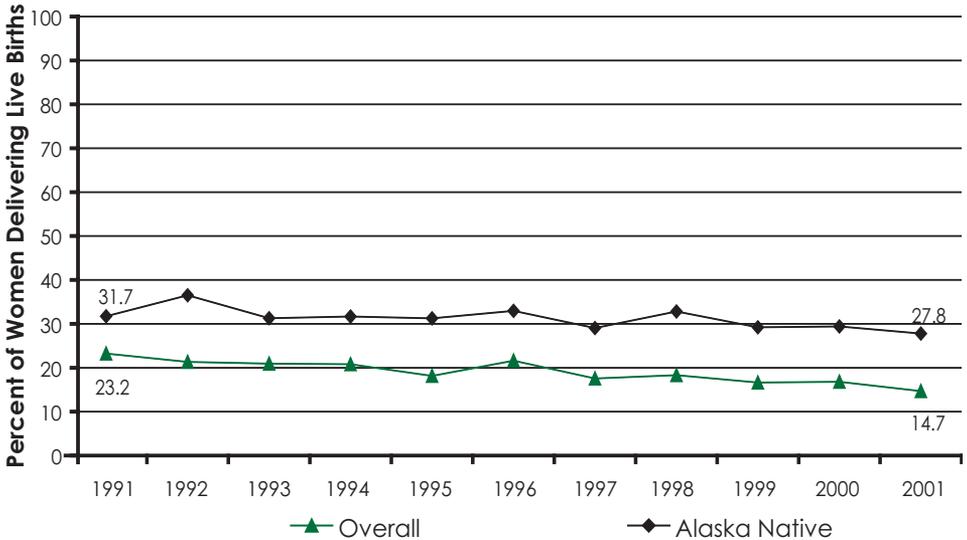
² The Health Consequences of Smoking. (See References for full citation)

³ The Health Consequences of Smoking. (See References for full citation)

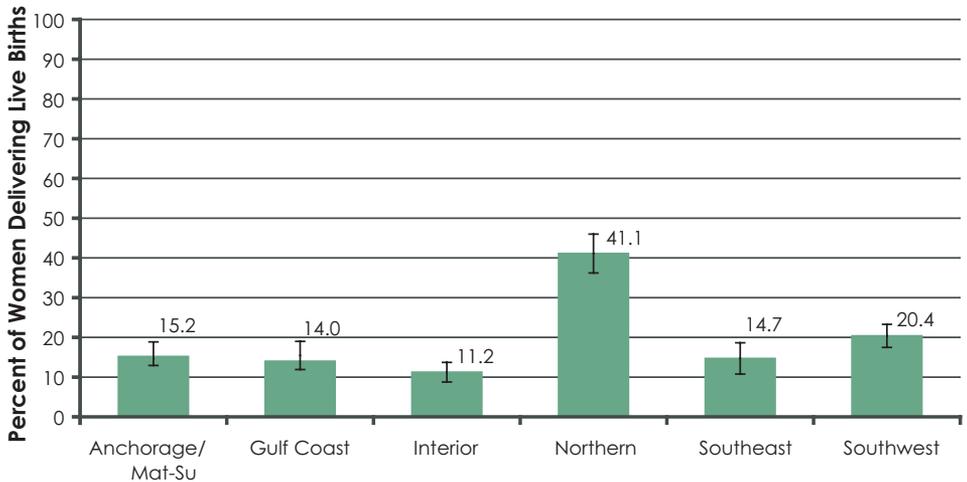
⁴ Alaska MCH Data Book 2003, pp 52-53. (See References for full citation)

Prenatal Health: Risk Behaviors

Prenatal Tobacco Use (last 3 months) by Race and Year
Alaska, 1991-2001



Prenatal Tobacco Use (last 3 months) by Region
Alaska, 1999-2001



Prenatal Tobacco Use

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.¹

- Alaska Native mothers had the highest prevalence of prenatal tobacco use (27.8%) of any race group – nearly 2.5 times that of white mothers (11.7%) and 14 times that of Asian or Pacific Islander mothers (2.0%).
- Young mothers, ages less than 25 years, were at greater risk of prenatal tobacco use than mothers 25 and older. Women in their early twenties were 1.6 times more likely to report prenatal tobacco use than women in the 25-34 age group.
- Teen mothers were twice as likely to report prenatal tobacco use as older mothers. While teen mothers had the highest prevalence of prenatal tobacco use (23.4%) in Alaska, recent national data indicate that they also had a significantly higher prevalence than their cohorts nationally (17.5% of teen mothers in the U.S. smoked prenatally in 2001).²
- Education level was significantly associated with the prevalence of prenatal tobacco use – as education level increased, the risk of maternal smoking decreased.
- 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 tobacco during the last three months of pregnancy than women that did not use Medicaid to pay for prenatal care.

¹ The Health Consequences of Smoking. (See References for full citation)

² The Health Consequences of Smoking. (See References for full citation)

Prenatal Health: Risk Behaviors

Prevalence of Prenatal Tobacco Use (last 3 months) by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	11.7	697	1.3	(9.2 - 14.3)
Alaska Native	27.8	645	1.6	(24.7 - 30.9)
Black	0.6 *	2	0.4	(0.0 - 1.3)
Asian or Pacific Islander	2.0	11	1.9	(0.0 - 5.8)
Maternal Ethnicity				
Hispanic	6.5	35	2.7	(1.1 - 11.9)
Non-Hispanic	15.7	1254	1.1	(13.6 - 17.7)
Maternal Age				
15-19 years	23.4	221	3.1	(17.3 - 29.5)
20-24 years	18.3	474	2.0	(14.4 - 22.1)
25-34 years	11.7	541	1.3	(9.1 - 14.2)
35 years or older	11.2	129	2.4	(6.5 - 16.0)
Maternal Education				
<12 years	36.2	363	3.5	(29.4 - 42.9)
12 years	17.5	706	1.5	(14.5 - 20.5)
>12 years	6.3	247	1.1	(4.0 - 8.5)
Prenatal Medicaid Status				
Medicaid	21.2	794	1.7	(17.9 - 24.6)
Non-Medicaid	10.1	550	1.1	(8.0 - 12.1)
OVERALL	14.7	1370	0.9	(12.8 - 16.5)
% Missing = 3.0				Core; Q29

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Prenatal Marijuana Use

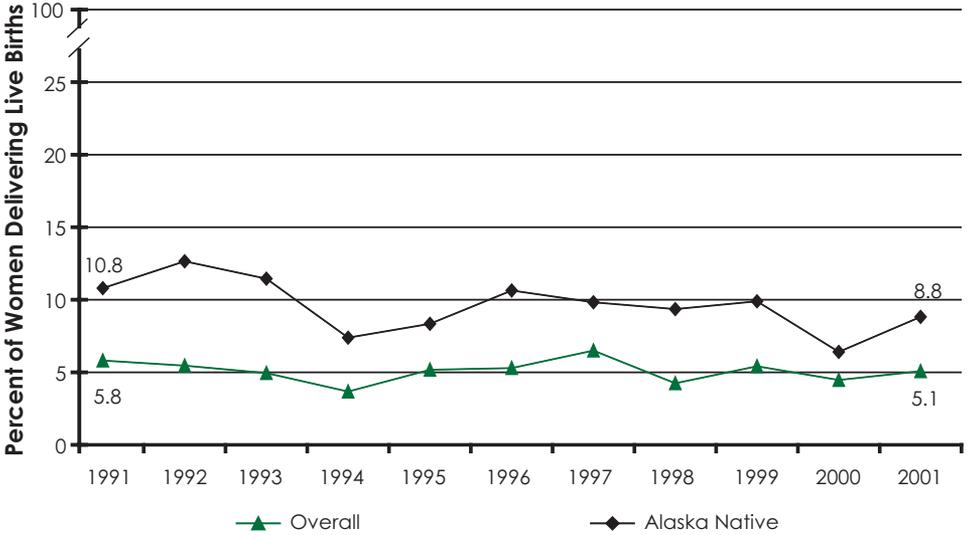
The Healthy People 2010 objective is to eliminate illicit drug use among pregnant women by the year 2010. The Healthy Alaskans 2010 objective is to reduce prenatal marijuana use among pregnant women to less than 3.5%.

- Over the last decade, there has been no significant decline in the trend for overall prenatal marijuana use in Alaska. Compared to data from a national survey, Alaskan women were more likely to report prenatal marijuana use than women in the United States overall (5.1% and 2.9%, respectively).¹
- The prevalence of prenatal marijuana use among Alaska Native mothers has been significantly higher than the overall state prevalence over the last decade – nearly twice that of the State average in 2001.
- During 1999-2001, the Northern region had the highest prevalence of prenatal marijuana use (13.8%). Compared to all other regions, 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 of prenatal marijuana use (3.0%).

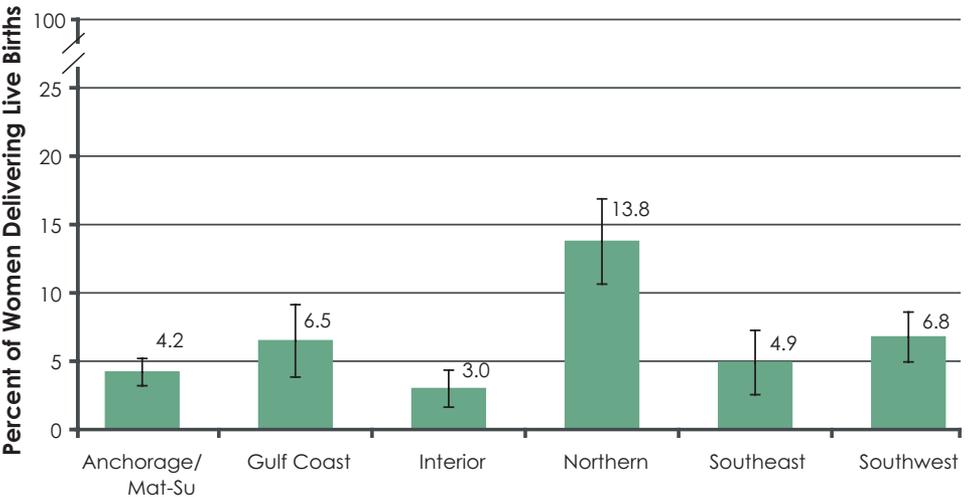
¹ National Survey on Drug Use and Health. (See References for full citation)

Prenatal Health: Risk Behaviors

Prenatal Marijuana Use by Race and Year
Alaska, 1991-2001



Prenatal Marijuana Use by Region
Alaska, 1999-2001



Prenatal Marijuana Use

Although the Alaska prevalence of prenatal marijuana use is higher than the national prevalence (5.1% and 2.9%, respectively), marijuana was not illegal in Alaska until after March 31, 1991. In 2001, prenatal use of marijuana was similar to the prevalence of prenatal alcohol use, but significantly lower than prenatal tobacco use.

- Alaska Native mothers were significantly more likely to report prenatal marijuana use than white mothers. The prevalence was more than twice as high among Alaska Natives compared to white and Asian or Pacific Islander mothers.
- 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.
- Alaskan women were significantly less likely to report prenatal marijuana use as education level increased. 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 (7.5%) was significantly higher than among women that did not use Medicaid to pay for prenatal care (3.2%) – nearly 2.5 times higher.

Prenatal Health: Risk Behaviors

Prevalence of Prenatal Marijuana Use by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	4.0	244	0.8	(2.5 - 5.6)
Alaska Native	8.9	207	1.0	(6.9 - 10.8)
Black	0.0 *^	0	--	--
Asian or Pacific Islander	4.4	24	2.9	(0.0 - 10.2)
Maternal Ethnicity				
Hispanic	3.8	21	2.3	(0.0 - 8.3)
Non-Hispanic	5.4	439	0.7	(4.1 - 6.7)
Maternal Age				
15-19 years	14.9	139	3.1	(8.7 - 21.0)
20-24 years	3.9	103	0.9	(2.2 - 5.6)
25-34 years	4.3	204	0.8	(2.7 - 5.9)
35 years or older	3.1	35	1.1	(0.9 - 5.3)
Maternal Education				
<12 years	13.1	139	2.5	(8.3 - 17.9)
12 years	5.1	208	0.9	(3.3 - 6.8)
>12 years	3.2	130	0.8	(1.6 - 4.8)
Prenatal Medicaid Status				
Medicaid	7.5	285	1.1	(5.3 - 9.6)
Non-Medicaid	3.2	177	0.6	(2.0 - 4.4)
OVERALL	5.1	483	0.6	(3.9 - 6.2)

% Missing = 1.1

State-specific; Q70b

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

^ No respondents reported this indicator.

Prenatal Smokeless Tobacco Use

The effects of smokeless tobacco during pregnancy have been largely unstudied. At present, one study analyzing Swedish birth registry data indicates that prenatal smokeless tobacco use may be associated with increased risk of preterm delivery and pre-eclampsia.¹ 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.

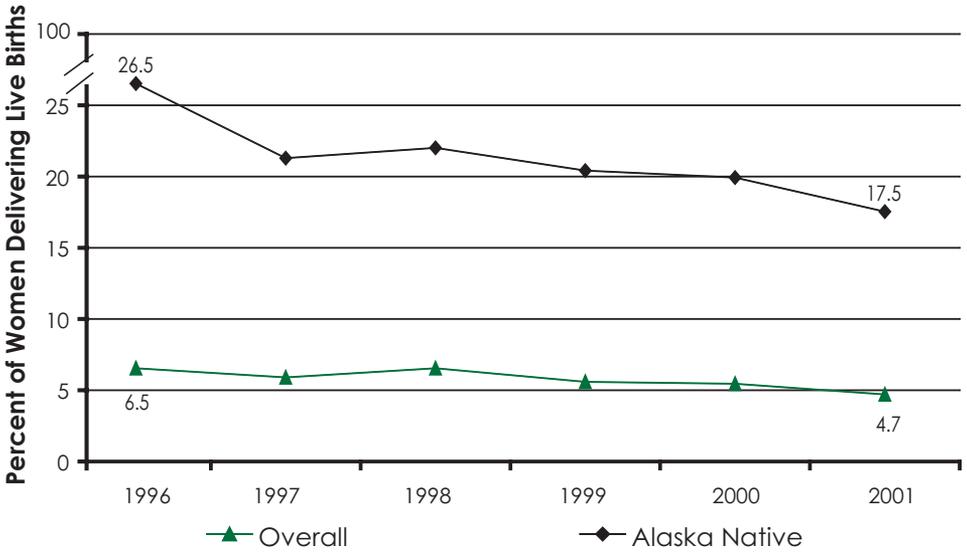
- From 1996-2001, there has been a significant decline in prenatal smokeless tobacco use in Alaska. Overall, the prevalence has declined nearly 30% since 1996. Compared to data from a national survey, Alaskan women were much more likely to report prenatal smokeless tobacco use than women in the United States (4.7% and 0.4%, respectively).²
- Prenatal smokeless tobacco use among Alaska Natives has been reduced more than one-third since 1996. Although the trend among Alaska Natives has significantly declined over the last six years, it is still nearly 4 times that of the State average (17.5% and 4.7%, respectively for 2001).
- The Southwest region had the highest prevalence of prenatal smokeless tobacco use (43.9%). Compared to all other regions, women from the Southwest region were significantly more likely to use smokeless tobacco while they were pregnant – 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%).

¹ Centers for Disease Control and Prevention. Safe Motherhood: Promoting Health for Women Before, During, and After Pregnancy. U.S. Department of Health and Human Services. 2004.

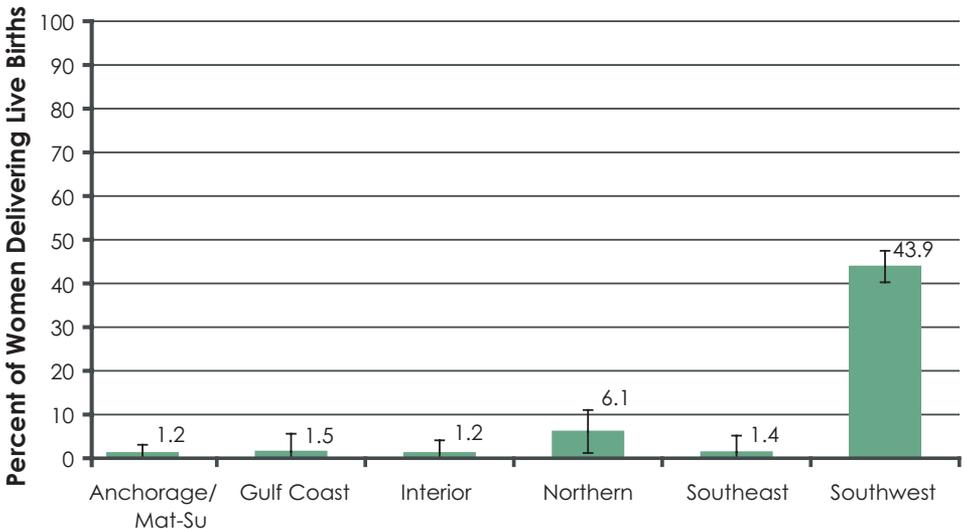
² National Survey on Drug Use and Health. (See References for full citation)

Prenatal Health: Risk Behaviors

Prenatal Smokeless Tobacco Use by Race and Year
Alaska, 1996-2001



Prenatal Smokeless Tobacco Use by Region
Alaska, 1999-2001



Prenatal Smokeless Tobacco Use

Smokeless tobacco use is a growing public health concern. Some people incorrectly perceive that using smokeless tobacco is safer than smoking cigarettes. Few states other than Alaska collect information on the use of smokeless tobacco during pregnancy.

- Alaska Native mothers were significantly more likely to report using smokeless tobacco while they were pregnant than white mothers – the prevalence was more than 40 times higher (17.5% and 0.4%, respectively).
- Although prenatal smokeless tobacco use appeared to decrease with maternal age, the differences between age groups were not statistically significant.
- The prevalence of smokeless tobacco use during pregnancy among Alaskan women significantly decreased as maternal education level increased. 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%).
- Smokeless tobacco use among Alaskan women that had prenatal care paid by Medicaid (9.2%) was significantly higher than women that did not use Medicaid to pay for prenatal services (1.4%) – more than 6.5 times higher.

Prenatal Health: Risk Behaviors

Prevalence of Prenatal Smokeless Tobacco Use by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	0.4	27	0.3	(0.0 - 0.9)
Alaska Native	17.5	412	1.3	(15.0 - 20.1)
Black	0.0 *^	0	--	--
Asian or Pacific Islander	0.0 ^	0	--	--
Maternal Ethnicity				
Hispanic	0.7	4	0.6	(0.0 - 2.0)
Non-Hispanic	3.1	249	0.3	(2.4 - 3.7)
Maternal Age				
15-19 years	7.3	70	1.5	(4.5 - 10.2)
20-24 years	5.0	132	0.9	(3.3 - 6.6)
25-34 years	4.3	202	0.5	(3.3 - 5.2)
35 years or older	3.7	42	0.9	(1.9 - 5.5)
Maternal Education				
<12 years	11.9	127	1.9	(8.2 - 15.6)
12 years	6.7	274	0.7	(5.4 - 8.1)
>12 years	0.3	11	0.1	(0.0 - 0.5)
Prenatal Medicaid Status				
Medicaid	9.2	354	0.9	(7.6 - 10.9)
Non-Medicaid	1.4	77	0.3	(0.9 - 1.9)
OVERALL	4.7	447	0.4	(4.0 - 5.4)

% Missing = 1.4

State-specific; Q78b

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

^ No respondents reported this indicator.

Infant Health



Breastfeeding Initiation

National survey data indicate that in-hospital breastfeeding rates for 2001 are the highest recorded since national breastfeeding data have been collected.¹ According to the Mothers Survey conducted by the Ross Products Division of Abbott Laboratories, the overall in-hospital rate for 2001 was 69.5% – with Hawaii (88.5%), Alaska (88.3%), and Oregon (88.1%) as the highest in the nation.² Data from PRAMS show similar breastfeeding rates for Alaska.

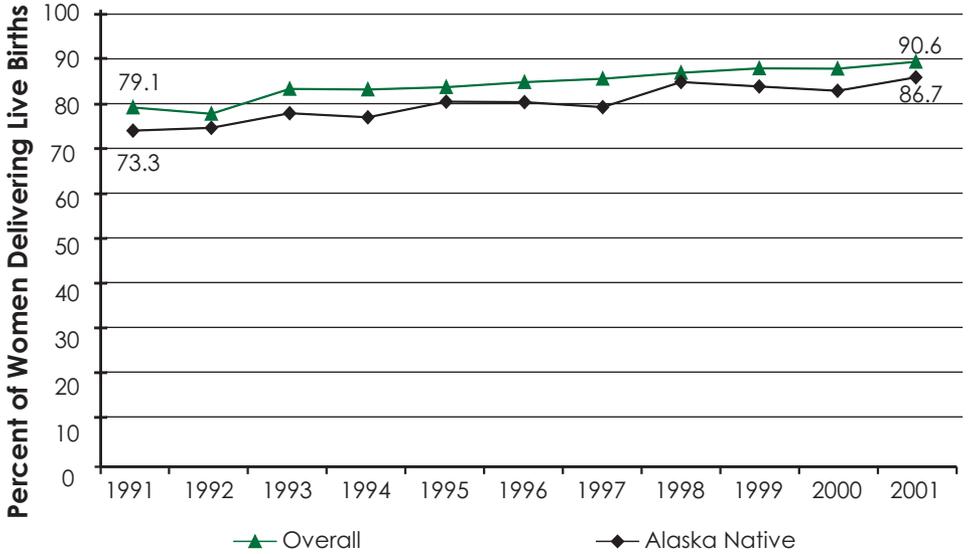
- Alaska was one of 14 states to achieve the Healthy People 2010 target of increasing breastfeeding initiation to at least 75%.³
- Over the last decade, the trend for breastfeeding initiation has significantly increased – more than 18% for Alaska Natives and 14% for Alaskan mothers overall.
- Regional data for 1999-2001 showed that the prevalence of breastfeeding initiation ranged from 82.7% (Northern) to 94.1% (Gulf Coast). Despite there being significant differences between regions, all regions of Alaska have achieved the Healthy People 2010 target.
- The Gulf Coast (94.1%) and Southeast (93.8%) regions had significantly higher breastfeeding initiation rates than the Northern (82.7%), Interior (86.2%), and Southwest (86.1%) regions.

¹ US Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau, Women's Health USA 2003. Rockville, Maryland: U.S. Department of Health and Human Services. 2003. <http://www.hrsa.gov/womenshealth>.

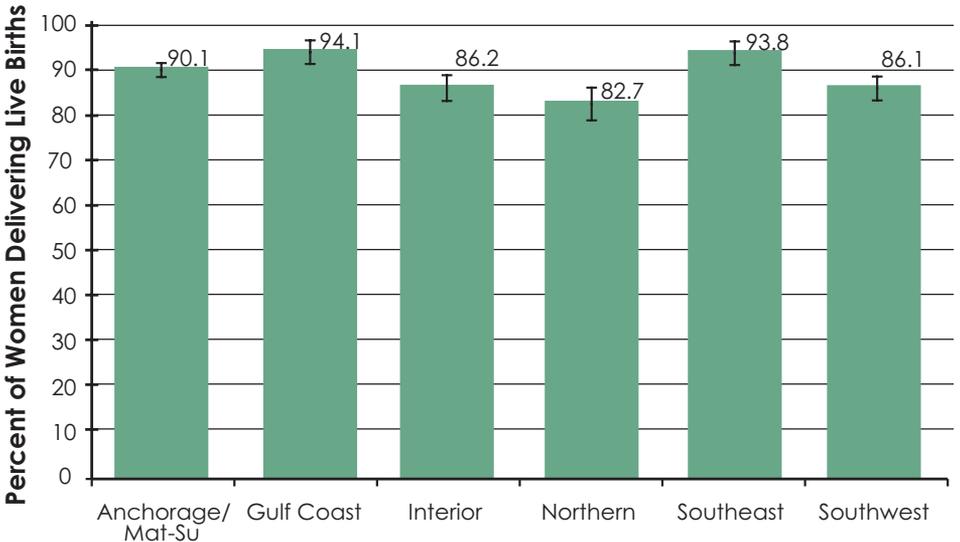
² Ross Products Division, Abbott Laboratories. Breastfeeding Trends – 2002. Mothers Survey 2002. 2003. http://www.ross.com/images/library/bf_trends_2002.pdf.

³ National Immunization Survey 2003. (See References for full citation)

Breastfeeding Initiation by Race and Year of Birth Alaska, 1991-2001



Breastfeeding Initiation by Region Alaska, 1999-2001



Breastfeeding Initiation

Breast milk is widely acknowledged to be the most complete form of nutrition for infants and the benefits for infants' health, growth, immunity, and development are well documented.¹ According to a national survey, as maternal age and education level increase, mothers are significantly more likely to breastfeed their newborn.² Data from PRAMS support the findings related to education level.

- The prevalence of overall breastfeeding initiation in Alaska was nearly 1.3 times higher than that reported by the 2003 National Immunization Survey – nationwide, 70.9% of mothers responded that they had ever breastfed their infant.³
- Although, white mothers in Alaska had a significantly higher prevalence of breastfeeding initiation than Alaska Native mothers, all race groups have achieved the Healthy People 2010 target of increasing breastfeeding initiation rates to at least 75%.
- In Alaska, breastfeeding initiation rates were not significantly different between age groups. All age groups had significantly higher rates than national rates. Compared to the nation, the prevalence among Alaskan teen mothers (86.4%) was nearly 1.6 times higher than teens in the U.S. (54.5%).⁴
- As maternal education level increased, Alaskan women were more likely to initiate breastfeeding. Women with at least some college education were significantly more likely to ever breastfeed than women with either less than a high school education or a high school education only.
- Alaskan women with at least some prenatal care services paid by Medicaid had a 6.6% lower prevalence of breastfeeding initiation than women that did not use Medicaid.

¹ Healthy People 2010. (See References for full citation)

² National Immunization Survey 2003. (See References for full citation)

³ National Immunization Survey 2003. (See References for full citation)

⁴ National Immunization Survey 2003. (See References for full citation)

Prevalence of Breastfeeding Initiation by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	92.8	5415	1.1	(90.6 - 94.9)
Alaska Native	86.7	1884	1.2	(84.3 - 89.1)
Black	92.5 *	378	4.2	(84.2 - 100)
Asian or Pacific Islander	80.3	435	5.6	(69.4 - 91.1)
Maternal Ethnicity				
Hispanic	80.6	431	5.6	(69.6 - 91.6)
Non-Hispanic	91.3	7135	0.9	(89.6 - 93.0)
Maternal Age				
15-19 years	86.4	774	3.0	(80.5 - 92.2)
20-24 years	90.8	2304	1.6	(87.7 - 94.0)
25-34 years	90.7	4131	1.2	(88.3 - 93.1)
35 years or older	93.3	1020	2.0	(89.4 - 97.3)
Maternal Education				
<12 years	85.2	852	2.7	(80.0 - 90.4)
12 years	86.4	3362	1.6	(83.4 - 89.4)
>12 years	95.5	3696	1.0	(93.6 - 97.5)
Prenatal Medicaid Status				
Medicaid	87.1	3185	1.5	(84.2 - 90.0)
Non-Medicaid	93.3	4958	1.0	(91.3 - 95.3)
OVERALL	90.6	8231	0.9	(88.9 - 92.3)

% Missing = 3.6

Core: Q49

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Breastfeeding, 4 Weeks Postpartum

The benefits to infant health from breastfeeding are numerous and well documented. The American Academy of Pediatrics recommends breastfeeding for reduced risk of infection in infants and for the prevention of childhood obesity.¹

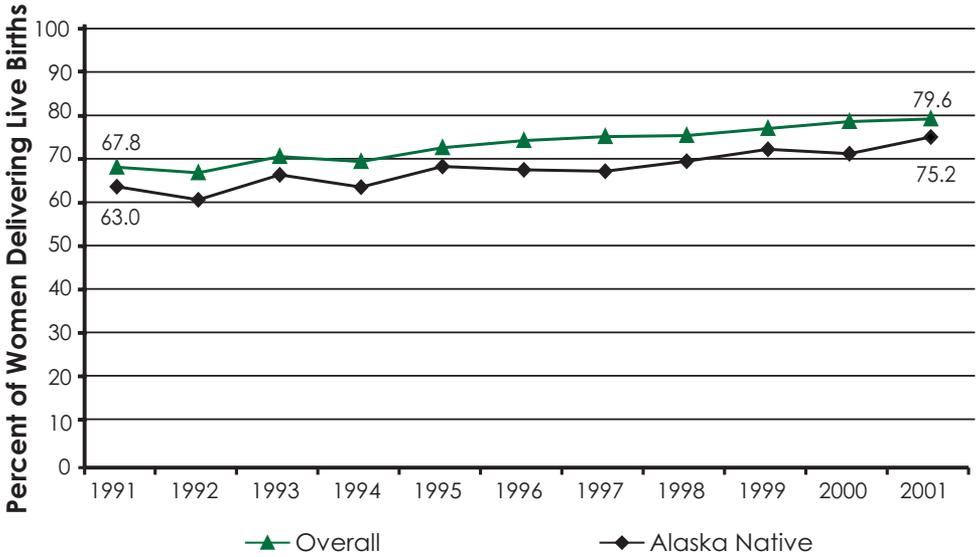
- In Alaska, the trend for breastfeeding at 4 weeks postpartum has significantly increased over the last decade. Since 1991, the prevalence has increased nearly 20% for both Alaska Native mothers and Alaskan mothers overall.
- Breastfeeding at 4 weeks postpartum was nearly 1.3 times higher among Alaskan women compared to the U.S. rate. Nationwide, 62.3% of women were still nursing when their infants were four weeks old.²
- During 1999-2001, regional prevalence of breastfeeding at 4 weeks after delivery ranged from 69.5% (Northern) to 86.0% (Southeast). Although the prevalence in the Northern region was significantly lower than the overall prevalence for the State, it was significantly higher than the national rate.
- With the exception of the Gulf Coast region (82.9%), women from the Southeast region (86.0%) were more likely to continue nursing their infant through the first month than all other regions.

¹ American Academy of Pediatrics. Policy Statement. Prevention of Pediatric Overweight and Obesity. Committee on Nutrition. *Pediatrics*; 112(2):424-430. Aug 2003.

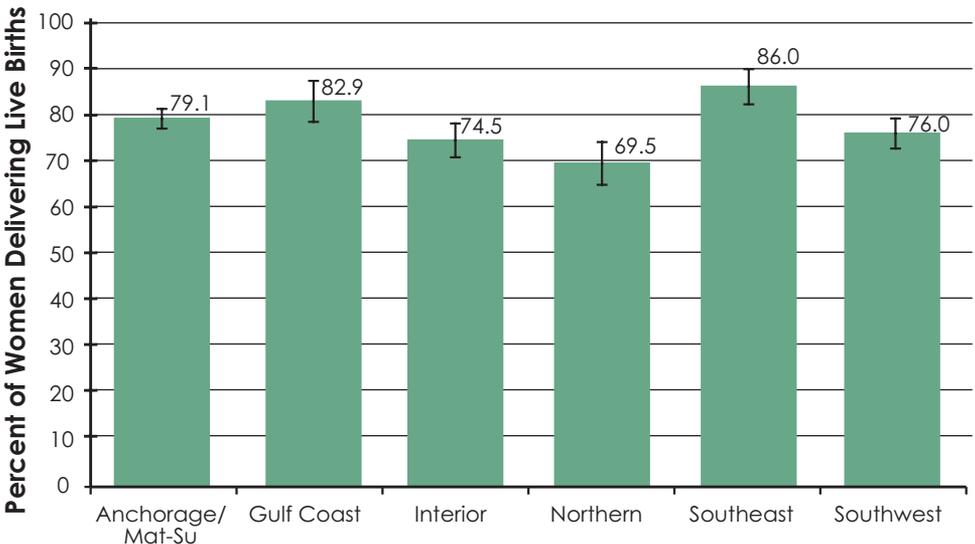
² National Immunization Survey 2003. (See References for full citation)

Infant Health

Breastfeeding, 4 Weeks Postpartum by Race and Year of Birth Alaska, 1991-2001



Breastfeeding, 4 Weeks Postpartum by Region Alaska, 1999-2001



Breastfeeding, 4 Weeks Postpartum

During 1993-1999, Alaska was one of eight PRAMS states to experience a significant increase in the prevalence of breastfeeding for at least 4 weeks postpartum. In 1999, breastfeeding during this early postpartum period ranged from 34.9% to 78.1% among PRAMS states.¹ Consistent with data from other states participating in PRAMS, Alaska data indicate maternal age, education level, and Medicaid status are associated with the prevalence of breastfeeding in the early postpartum period.²

- Compared to Alaska Native and Asian or Pacific Islander mothers, white mothers were more likely to nurse their babies through the first month after delivery.
- Alaskan women ages 35 years or older had the highest prevalence of breastfeeding through the first month (87.3%). They were significantly more likely to breastfeed at least 4 weeks postpartum than women less than 25 years of age.
- As maternal education level increased, Alaskan women were more likely to continue breastfeeding through the first month after delivery.
- Women with at least some college education had the highest prevalence of breastfeeding at 4 weeks after delivery (87.5%). They were significantly more likely to continue breastfeeding at this time than women with a high school education or less.
- Alaskan women with prenatal care services paid by Medicaid were less likely to breastfeed at least 4 weeks after delivery than women who did not use Medicaid.

¹ PRAMS 1999 Surveillance Report. (See References for full citation)

² Beck LF, Morrow B, Lipscomb LE, et al. Prevalence of Selected Maternal Behaviors and Experiences, Pregnancy Risk Assessment Monitoring System (PRAMS), 1999. *MMWR*; 51(SS02):1-26. Apr 2002.

Prevalence of Breastfeeding, 4 Weeks Postpartum by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	82.8	4777	1.6	(79.7 - 85.9)
Alaska Native	75.2	1622	1.6	(72.1 - 78.2)
Black	78.5 *	321	6.8	(65.3 - 91.7)
Asian or Pacific Islander	61.6	328	6.8	(48.2 - 75.0)
Maternal Ethnicity				
Hispanic	71.8	371	6.5	(59.1 - 84.4)
Non-Hispanic	80.1	6200	1.3	(77.6 - 82.6)
Maternal Age				
15-19 years	68.0	600	4.1	(59.9 - 76.1)
20-24 years	76.2	1920	2.4	(71.5 - 80.8)
25-34 years	82.0	3691	1.7	(78.7 - 85.3)
35 years or older	87.3	939	2.8	(81.9 - 92.8)
Maternal Education				
<12 years	64.5	634	3.7	(57.2 - 71.7)
12 years	75.0	2888	2.0	(71.1 - 78.8)
>12 years	87.5	3355	1.6	(84.3 - 90.7)
Prenatal Medicaid Status				
Medicaid	74.8	2696	2.0	(70.9 - 78.7)
Non-Medicaid	83.3	4380	1.5	(80.3 - 86.3)
OVERALL	79.6	7149	1.2	(77.2 - 82.0)

% Missing = 4.6

Core; Q50, Q51

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Infant Sleep Position

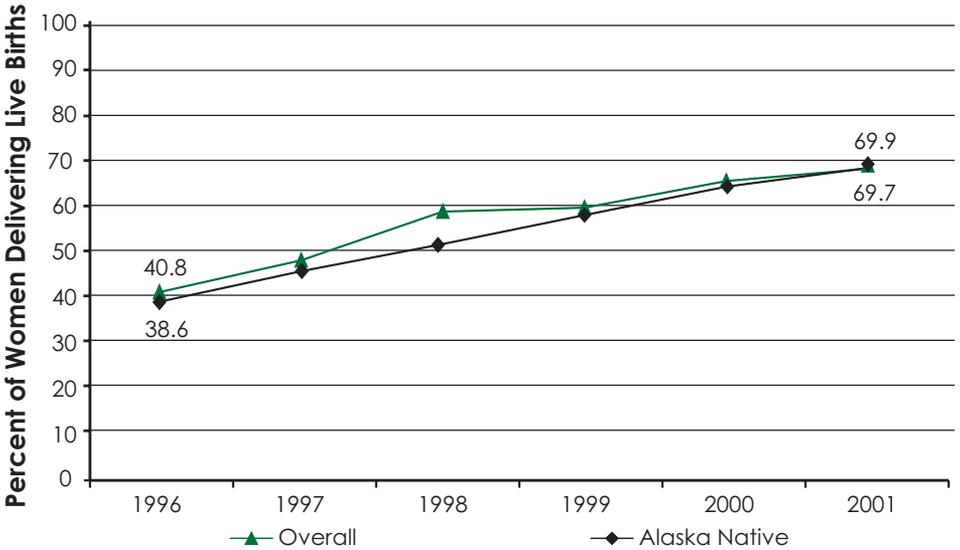
In 1996, the “Back to Sleep” awareness campaign was initiated in Alaska to educate parents about reducing the risk of Sudden Infant Death Syndrome (SIDS) by placing their infants to sleep on their backs.¹ Nationwide, the Healthy People 2010 objective is to increase the percentage of full-term infants who are put to sleep on their backs to at least 70% by the year 2010 – Alaska has made significant progress in achieving this goal.²

- From 1996-2001, the prevalence of putting infants to sleep on their backs has significantly increased among Alaskan mothers. In 2001, the overall prevalence for Alaska was 1.7 times higher compared to 1996.
- The prevalence among Alaska Native mothers has increased more than 80% from 1996 to 2001 – with nearly 70% of Alaska Native mothers routinely putting their infants to sleep on their backs, compared to less than 40% in 1996.
- Data for 2001 indicated that Alaskan mothers were significantly more likely to put their babies to sleep on their backs (69.7%) than on their sides (17.6%) or stomachs (12.7%).
- Regional prevalences for putting infants to sleep on their backs ranged from 57.2% (Southwest) to 70.2% (Southeast). Women from 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.

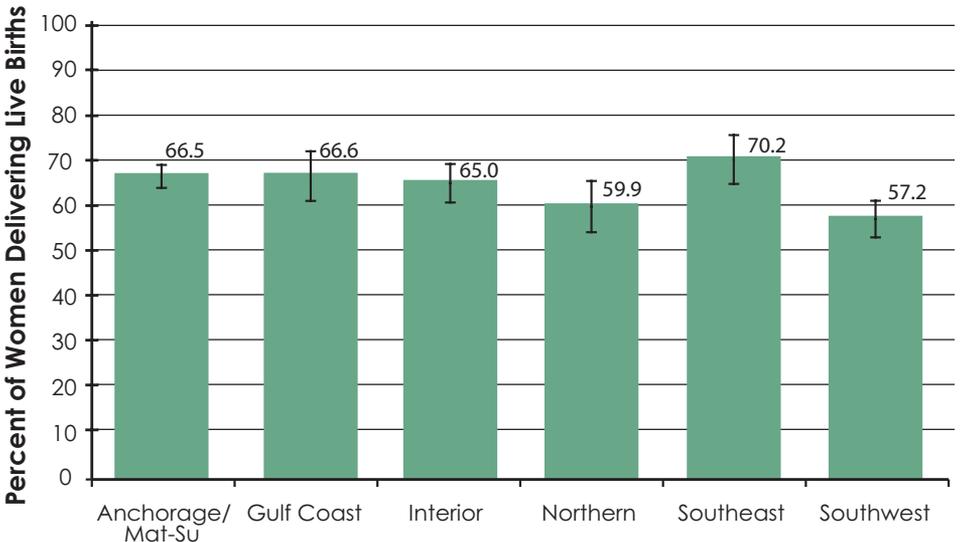
¹ Alaska MCH Data Book 2003, p 78. (See References for full citation)

² Healthy People 2010. (See References for full citation)

Placing Infants to Sleep on Their Backs by Race and Year Alaska, 1996-2001



Placing Infants to Sleep on Their Backs by Region Alaska, 1999-2001



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 1997.¹

- Alaskan mothers were more likely to put their infants to sleep on their backs than any other position, regardless of race group. White and Alaska Native mothers had the highest prevalence for 2001, but they were not significantly more likely to place their infants to sleep on their backs than other race groups.
- Although the highest prevalence was among mothers ages 35 or older (78.3%) and the lowest was among mothers ages 20-24 (66.3%), Alaskan mothers did not differ significantly in routinely placing their infants to sleep on their backs, regardless of age group.
- Regardless of maternal education level, Alaskan mothers did not differ in the manner they placed their infants to sleep. There was no significant association between education level and routinely placing infants to sleep on their backs.
- There was no difference in use of the back sleep position between women that had prenatal care paid by Medicaid (70%) and those that do not use Medicaid to pay for prenatal care (69.2%).

¹ Gessner BD. 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). Dec 2000.

Prevalence of Placing Infants to Sleep on Their Backs by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	71.8	4110	1.9	(68.1 - 75.5)
Alaska Native	69.9	1370	1.8	(66.4 - 73.3)
Black	50.8 *	200	8.5	(34.2 - 67.5)
Asian or Pacific Islander	60.0	316	6.9	(46.6 - 73.4)
Maternal Ethnicity				
Hispanic	62.5	316	6.9	(49.1 - 76.0)
Non-Hispanic	70.9	5344	1.5	(67.9 - 73.9)
Maternal Age				
15-19 years	72.8	605	4.1	(64.8 - 80.8)
20-24 years	66.3	1565	2.8	(60.8 - 71.8)
25-34 years	68.8	3062	2.1	(64.7 - 72.8)
35 years or older	78.3	839	3.6	(71.2 - 85.4)
Maternal Education				
<12 years	64.7	556	4.0	(56.9 - 72.6)
12 years	66.5	2471	2.2	(62.2 - 70.9)
>12 years	74.6	2864	2.2	(70.3 - 78.8)
Prenatal Medicaid Status				
Medicaid	70.0	2333	2.2	(65.7 - 74.2)
Non-Medicaid	69.2	3653	1.9	(65.5 - 73.0)
OVERALL	69.7	6075	1.4	(66.8 - 72.5)

% Missing = 7.3

Core; Q54

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

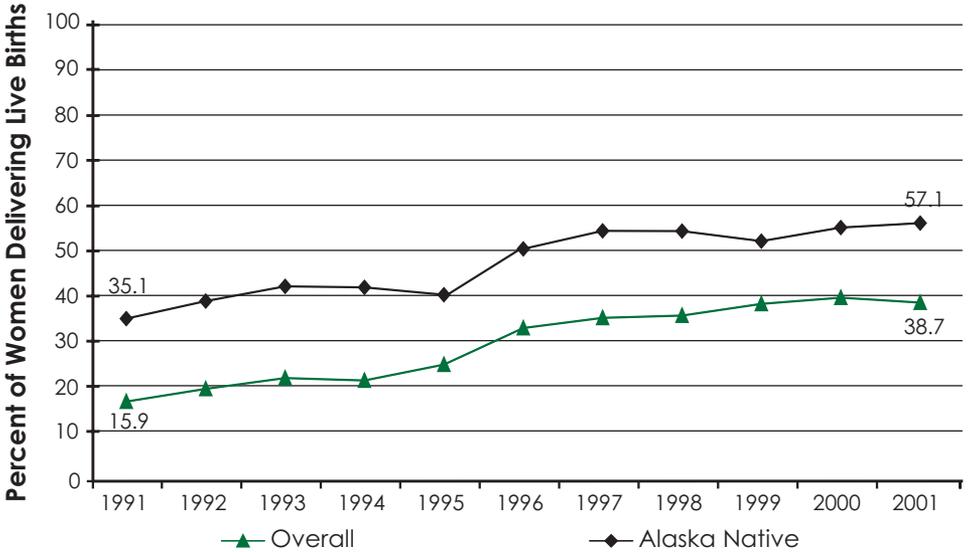
Co-Sleeping

Co-sleeping refers to the practice of children sharing the same bed with parents or other children. Some studies suggest that the risk for Sudden Infant Death Syndrome (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 PRAMS survey has collected co-sleeping data since 1991.

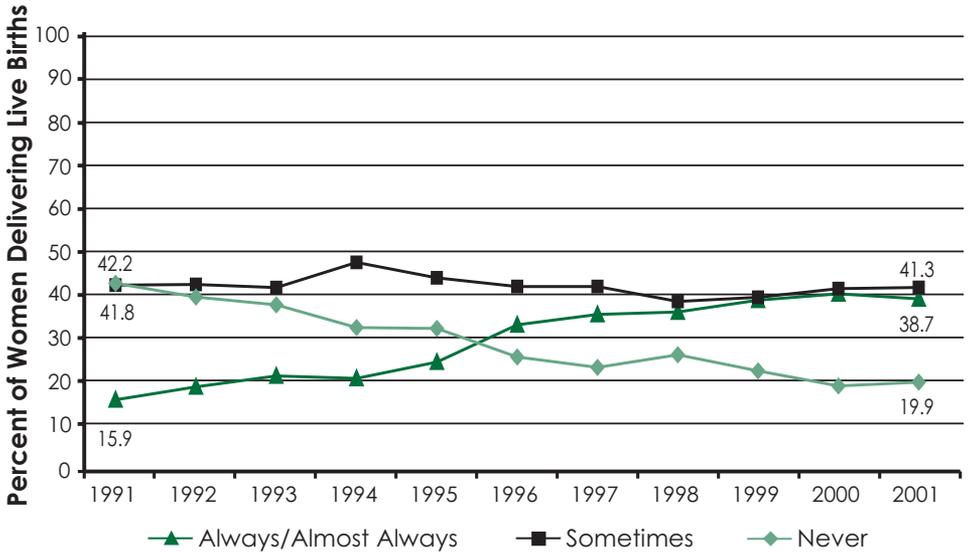
- The prevalence of mothers of newborns always or almost always co-sleeping with their infants has been steadily increasing over the years, though it shows a plateau effect for the 2000s. The most recent estimate of 38.7% in 2001 was nearly 2.5 times greater than what it was in 1991 (15.9%).
- Non-white women are more likely than whites to co-sleep with their infants.¹ 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.
- In 2001, only 19.9% of the population said they never co-sleep. 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.

¹ Alaska MCH Data Book 2003, p 80. (See References for full citation)

Mother-Infant Always/Almost Always Co-Sleeping by Race and Year of Birth, Alaska, 1991-2001



Mother-Infant Co-Sleeping by Year of Birth Alaska, 1991-2001



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.¹ While prenatal use of alcohol is not significantly different by region, prenatal use of marijuana or tobacco products does differ significantly by region and the regions that show these higher risk behaviors during pregnancy also indicate high co-sleeping rates. Health care providers could use these facts to help target education efforts.

- The Northern and Southwest regions of Alaska showed the highest co-sleeping prevalence for 1999-2001 with 64.7% and 58.9%, respectively. These rates were significantly higher than all other regions of the State.
- The Interior region had the lowest always or almost always co-sleeping prevalence with 28.6%.

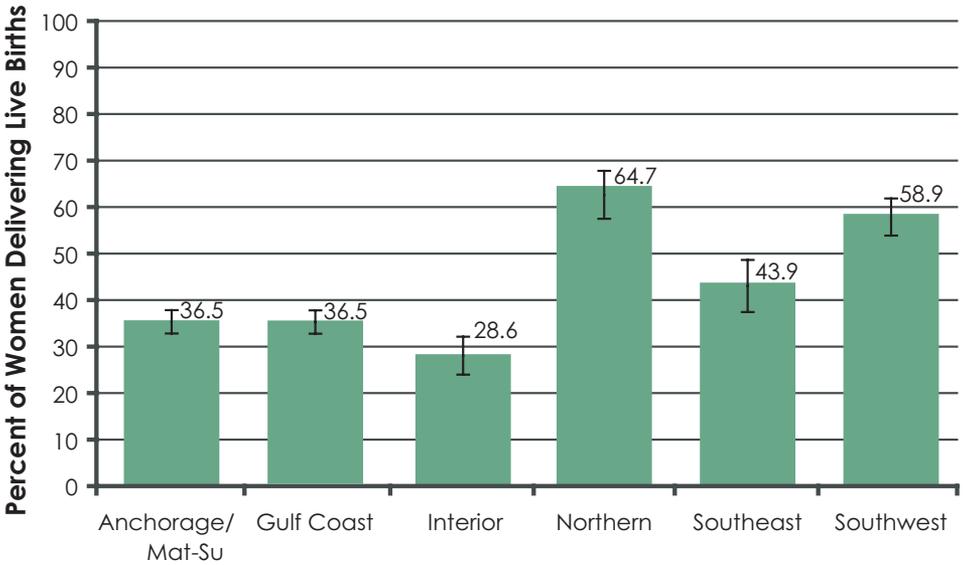
To reduce the risk of Sudden Infant Death Syndrome (SIDS):

Healthy infants younger than 6 months of age should be placed to sleep on their back and should sleep either in an infant crib or with a nonsmoking, unimpaired caregiver on an adult non-water mattress.

Caretakers of preterm and low birth weight infants and infants with other substantial health problems should consult their doctor for advice.

¹ 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. Oct 2001.

Mother-Infant Always/Almost Always Co-Sleeping by Region Alaska, 1999-2001



Co-Sleeping

Current literature on co-sleeping spans many cultures and countries. Most of these studies focus on co-sleeping's relationship as a risk factor in Sudden Infant Death Syndrome (SIDS), how it relates to breastfeeding habits, or how it affects sleeping patterns. Alaska PRAMS gives a complimentary look at the population-based prevalence of this practice among mothers of newborns who reside in Alaska. For the years 1991-1999, the question focused on mother-infant co-sleeping habits. Starting in 2000, the question was expanded to include anyone else the infant slept with in the bed.

- Alaska Native and Asian or 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 in 2001.
- Hispanic mothers showed a higher prevalence of their infant co-sleeping than for non-Hispanics, although this was not statistically significant.
- Co-sleeping was more common among infants born to teenage mothers than older mothers. Half of all teen mothers indicated their infant shares a bed. The prevalence of infant co-sleeping was similar for mothers ages 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 indicated a significantly higher prevalence of co-sleeping for their infant than non-Medicaid recipients.

Prevalence of Mother-Infant Always/Almost Always Co-Sleeping by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	30.6	1808	1.9	(26.8 - 34.3)
Alaska Native	57.1	1253	1.8	(53.5 - 60.6)
Black	29.3*	123	7.6	(14.5 - 44.1)
Asian or Pacific Islander	61.5	342	6.7	(48.4 - 74.6)
Maternal Ethnicity				
Hispanic	46.0	247	6.8	(32.7 - 59.2)
Non-Hispanic	37.8	2996	1.6	(34.8 - 40.9)
Maternal Age				
15-19 years	50.1	449	4.3	(41.6 - 58.5)
20-24 years	37.6	964	2.6	(32.4 - 42.7)
25-34 years	38.3	1779	2.1	(34.2 - 42.4)
35 years or older	34.3	378	4.0	(26.4 - 42.2)
Maternal Education				
<12 years	57.1	569	3.8	(49.7 - 64.6)
12 years	38.2	1496	2.1	(34.1 - 42.4)
>12 years	34.5	1374	2.3	(30.0 - 39.0)
Prenatal Medicaid Status				
Medicaid	44.9	1640	2.2	(40.5 - 49.3)
Non-Medicaid	34.6	1888	1.9	(30.9 - 38.3)
OVERALL	38.7	3570	1.4	(36.0 - 41.5)

% Missing = 2.3

State-specific; Q72

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Infant Exposure to Tobacco Smoke

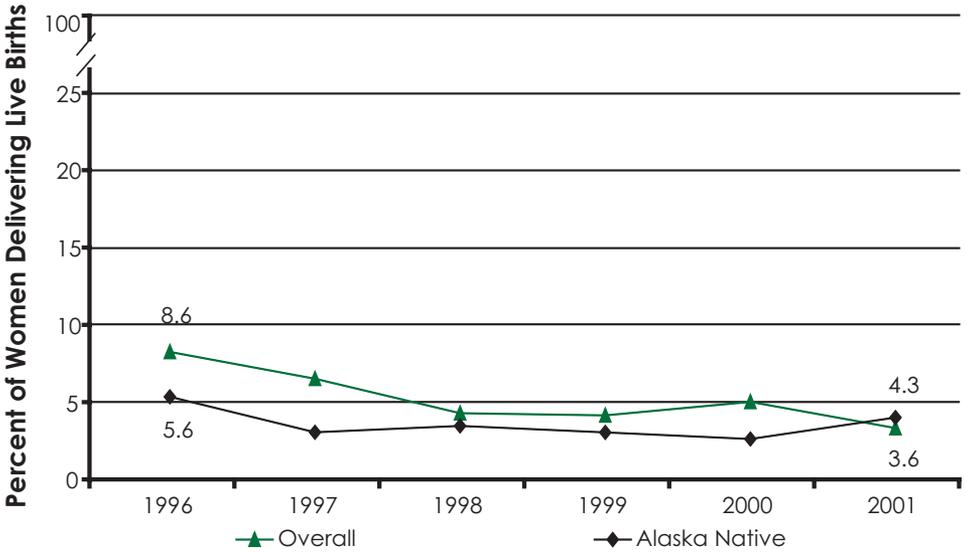
Secondhand smoke currently kills an estimated 120 Alaskans each year.¹ Children exposed to secondhand smoke have an increased risk of middle ear infections and a variety of respiratory conditions, including acute exacerbation of asthma resulting in hospitalization, and an increased risk for Sudden Infant Death Syndrome (SIDS). Data from the 2003 Adult Tobacco Survey reveal that smoking is allowed in at least a limited fashion in the homes of 17% of Alaskan adults, with smokers (44%) being much more likely than non-smokers (10%) to report that smoking is allowed in their home.²

- The trend for any infant secondhand smoke exposure continues to decline. Since 1996 (8.6%), the prevalence has dropped 58% to 3.6% overall.
- Alaska Native mothers consistently reported lower levels of infant exposure to secondhand smoke than the overall prevalence during 1996-2000. However, in 2001 the prevalence of infant exposure to secondhand smoke was slightly higher among Alaska Natives.
- The region with the highest reported infant exposure to secondhand tobacco smoke was the Gulf Coast region at 7.0%, the lowest was for the Southwest region.
- In the Northern region where postpartum tobacco use was nearly twice that of all other regions, the prevalence of infant exposure to secondhand smoke (4.1%) was not statistically different from other regions.

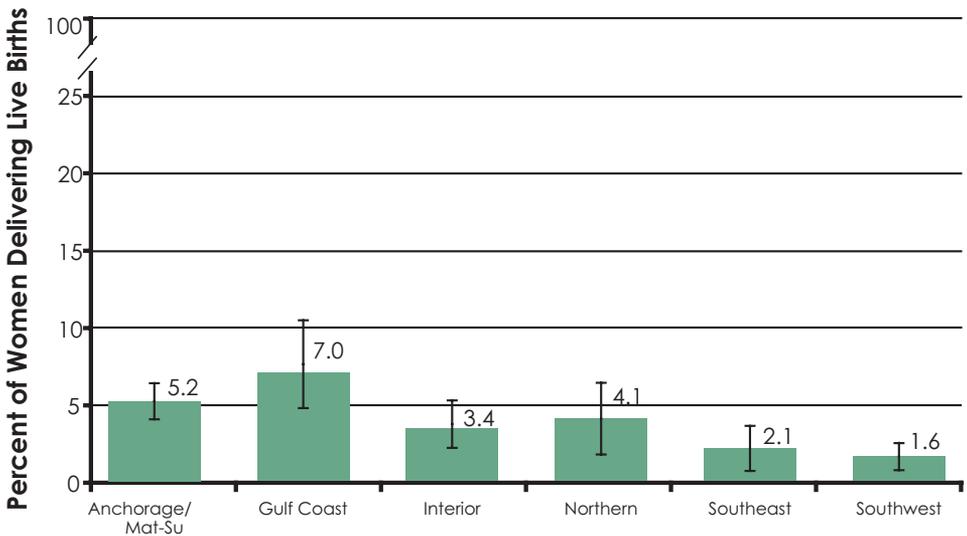
¹ Tobacco in the Great Land, p 146. (See References for full citation)

² Tobacco in the Great Land, p 133-4. (See References for full citation)

Infant Exposure to Secondhand Smoke by Race and Year Alaska, 1996-2001



Infant Exposure to Secondhand Smoke by Region Alaska, 1999-2001



Infant Exposure to Tobacco Smoke

Although most Alaskan adults and adolescents are aware that exposure to secondhand smoke is harmful, most underestimate the extent of the risks associated with it.¹ While the majority of both smokers and non-smokers surveyed on the Adult Tobacco Survey (ATS) correctly agreed that environmental tobacco smoke (ETS) exposure was linked with child respiratory problems (over 80%), roughly 30% knew that Sudden Infant Death Syndrome (SIDS) was a possible consequence of ETS exposure. ATS data from 2003 show that 13% of adults who had children under age 5 living with them reported that someone had smoked in their home on at least one day during the past week. Nine percent of adults living with children under age 5 reported ETS in their home every day during the previous week.²

- Around 4% of Alaska Native and white mothers of newborns indicated that their newborn had been exposed to ETS. Less than 1% of Asian or Pacific Islander mothers indicated this.
- Although there appeared to be no significant pattern in infant ETS exposure by maternal age, the age group with the highest prevalence of infant secondhand smoke exposure was 20-24 year olds.
- Neither maternal education nor prenatal Medicaid status were correlated with reported infant ETS exposure.

¹ State of Alaska, Department of Health and Social Services, Division of Public Health. Environmental Tobacco Smoke in Alaska. State of Alaska Epidemiology Bulletin: Recommendations and Reports; 8(6). Sep 2004.

² Tobacco in the Great Land, p 122. (See References for full citation)

Prevalence of Infant Exposure to Secondhand Smoke by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	3.6	211	0.8	(2.1 - 5.1)
Alaska Native	4.3	92	0.7	(2.8 - 5.7)
Black	3.2 *	13	3.0	(0.0 - 9.2)
Asian or Pacific Islander	0.6	3	0.3	(0.1 - 1.1)
Maternal Ethnicity				
Hispanic	3.6	19	2.5	(0.0 - 8.4)
Non-Hispanic	3.8	293	0.6	(2.6 - 4.9)
Maternal Age				
15-19 years	3.3	30	1.6	(0.3 - 6.4)
20-24 years	4.9	124	1.3	(2.4 - 7.3)
25-34 years	2.9	132	0.7	(1.5 - 4.3)
35 years or older	3.3	36	1.2	(1.0 - 5.6)
Maternal Education				
<12 years	3.9	38	1.0	(1.9 - 5.8)
12 years	4.4	172	1.0	(2.6 - 6.3)
>12 years	2.5	97	0.7	(1.1 - 3.9)
Prenatal Medicaid Status				
Medicaid	4.6	168	1.0	(2.7 - 6.6)
Non-Medicaid	2.7	141	0.6	(1.5 - 3.8)
OVERALL	3.6	322	0.5	(2.5 - 4.6)

% Missing = 3.8

Core; Q53

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Maternal Health



Pre-pregnancy Overweight/Obesity

Over the last decade, obesity prevalence in the United States increased dramatically – by 74% between 1991 and 2001.¹ In 1991, only four of 45 states who participated in the U.S. Centers for Disease Control and Prevention’s Behavioral Risk Factor Surveillance System (BRFSS) reported an overall prevalence of adult obesity of 15% or greater. By 2001, all but one of 50 states had obesity rates of 15% or more. Among Alaskan adults, the prevalence of obesity was 21%.²

- Over 42% of Alaskan women who delivered a live birth in 2001 were overweight or obese prior to becoming pregnant. The prevalence of pre-pregnancy overweight/obesity increased from 26.8% in 1991 to 42.4% in 2001 – a 58% increase.
- Alaska Native women had a higher prevalence of pre-pregnancy overweight/obesity (49.3% in 2001) than the overall population of women who recently delivered. Despite a higher race-specific prevalence, Alaska Native women reported a decline of 7% in pre-pregnancy overweight/obesity between 2000 and 2001.
- In 2001, overweight/obesity was less prevalent in the pre-pregnancy population (42.4%) than in the general population of Alaskan women ages 18 or older (56.7%)²; however, the rate of increase in overweight/obesity was higher in the pre-pregnancy population. Between 1991 and 2001, pre-pregnancy overweight/obesity increased by 58%, compared to an increase of 47% in the prevalence of overweight/obesity among adult females surveyed by Alaska’s BRFSS.³
- Region-specific prevalence of pre-pregnancy overweight/obesity ranged from 38.7% in the Interior to 52.9% in the Northern region during 1999-2001. In general, the regions with larger urban populations (Anchorage/Mat-Su and Interior) reported lower rates of pre-pregnancy overweight/obesity than more rural regions.

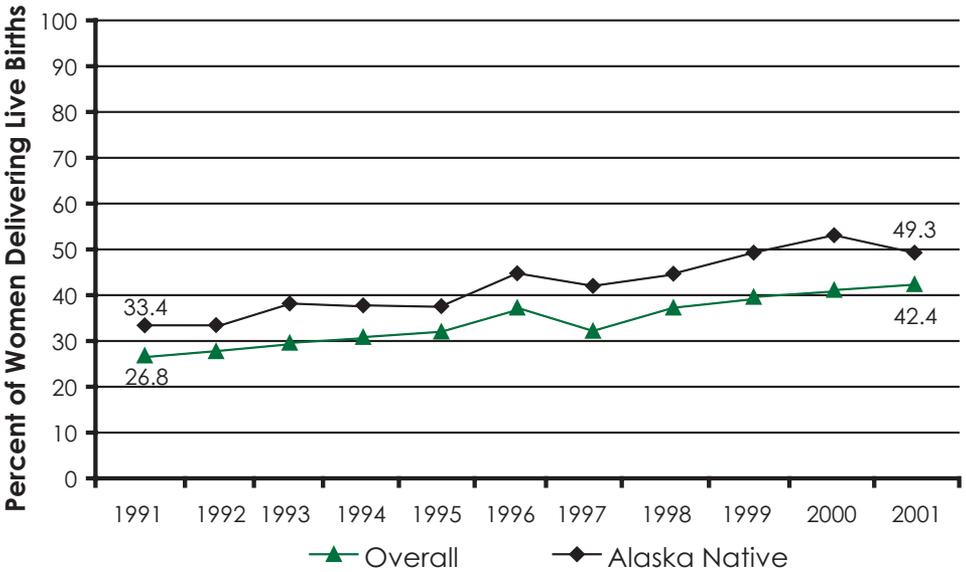
¹ Centers for Disease Control and Prevention. Obesity Trends: Prevalence of Obesity Among U.S. Adults by State 1991-2001. http://www.cdc.gov/nccdphp/dnpa/obesity/trend/prev_reg.htm. (09/2004).

² Health Risks in Alaska Among Adults. (See References for full citation)

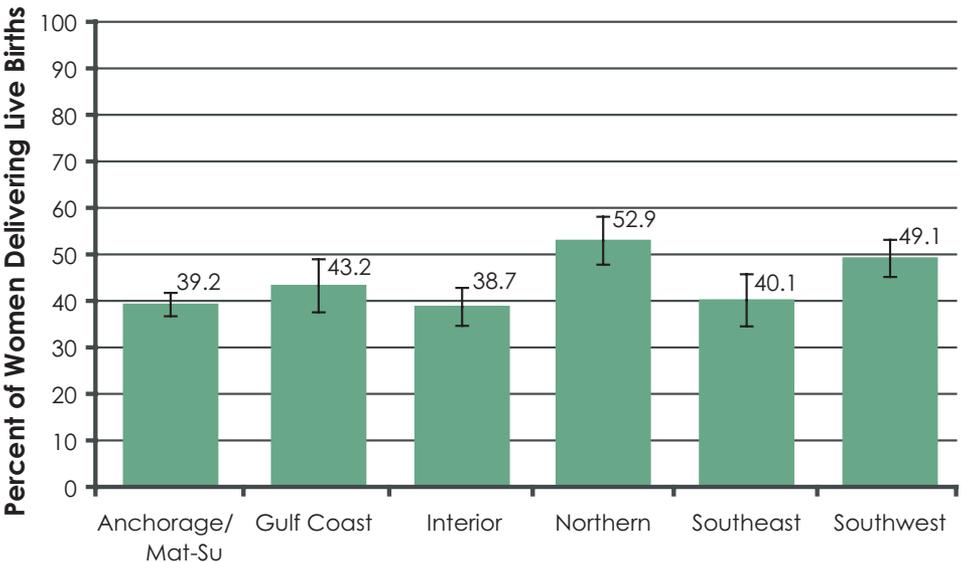
³ Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System (BRFSS), Trends data, Alaska, Grouped by Gender, Overweight and Obesity, 1991 and 2001. <http://apps.nccd.cdc.gov/brfss/Trends/sexchart.asp?qkep=10080&state=AK>. (08/2005).

Maternal Health

Pre-pregnancy Overweight/Obesity by Race and Year
Alaska, 1991-2001



Pre-pregnancy Overweight/Obesity by Region
Alaska, 1999-2001



Pre-pregnancy Overweight/Obesity

Obesity (a body mass index of 30kg/m² or higher) is associated with multiple health consequences. Among these health conditions are some of the leading causes of mortality in the U.S. – including coronary heart disease, stroke, cancers of the breast and colon, and type 2 diabetes. Obesity is associated with poor female reproductive health and pre-pregnancy obesity has been found to be an independent risk factor for adverse pregnancy and neonatal outcomes.¹ Pregnancy complications associated with obesity include gestational diabetes, gestational hypertension, preeclampsia and complications in surgical delivery.

- In 2001, the race group with the lowest prevalence of pre-pregnancy overweight/obesity in Alaska was Asian or Pacific Islanders (26.1%). Between the two largest race groups in Alaska, Alaska Natives had a significantly higher prevalence of pre-pregnancy overweight/obesity (49.3%) than whites (40.6%). Black women appeared to be at greatest risk for pre-pregnancy overweight/obesity.
- Younger mothers were less likely to experience pre-pregnancy overweight/obesity than older mothers; but as the adolescent obesity rate grows,² the association between maternal age and pre-pregnancy overweight/obesity may diminish. This phenomenon may account for the rapid increase in pre-pregnancy obesity in Alaska compared to the increase among adult females.
- Women who had at least some college were slightly less likely to be considered overweight or obese prior to pregnancy; but neither of the two most commonly used indicators of socio-economic status (years of education and Medicaid status) were significantly correlated with an increased risk for pre-pregnancy overweight/obesity in Alaska.

¹ Bo S, Menato G, Signorile A, et al. Obesity or Diabetes: What is Worse for the Mother and for the Baby? *Diabetes/ Metabolism Reviews*; 29(2 Pt 1): 175-178. Apr 2003.

² Centers for Disease Control and Prevention and National Center for Health Statistics. National Health and Nutrition Examination Survey, Hispanic Health and Nutrition Examination Survey (1982-84), and National Health Examination Survey (1963-65 and 1966-70). Hyattsville, MD.

Maternal Health

Prevalence of Pre-pregnancy Overweight/Obesity by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	40.6	2410	2.0	(36.6 - 44.5)
Alaska Native	49.3	1101	1.8	(45.8 - 52.8)
Black	54.4 *	231	8.1	(38.5 - 70.3)
Asian or Pacific Islander	26.1	139	6.2	(13.9 - 38.3)
Maternal Ethnicity				
Hispanic	36.3	191	6.5	(23.4 - 49.1)
Non-Hispanic	42.6	3407	1.6	(39.5 - 45.7)
Maternal Age				
15-19 years	27.6	250	4.0	(19.8 - 35.4)
20-24 years	37.3	977	2.7	(32.1 - 42.5)
25-34 years	48.6	2239	2.2	(44.3 - 52.8)
35 years or older	41.1	463	4.2	(33.0 - 49.3)
Maternal Education				
<12 years	42.8	426	3.8	(35.4 - 50.1)
12 years	45.4	1793	2.2	(41.1 - 49.7)
>12 years	39.4	1578	2.4	(34.8 - 44.0)
Prenatal Medicaid Status				
Medicaid	43.0	1597	2.2	(38.6 - 47.3)
Non-Medicaid	42.0	2282	2.0	(38.1 - 45.8)
OVERALL	42.4	3929	1.5	(39.5 - 45.3)

% Missing = 3.7

Core; Q5, Q6

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Postpartum Tobacco Use

Women who smoke are at increased risk for many cancers, heart disease, high blood pressure and other leading causes of female mortality and morbidity. Postpartum tobacco use not only endangers the health of the mother, but the outcome of future pregnancies and the health of the newborn infant and other children in the home. Exposure to environmental tobacco smoke is associated with an increased risk of infant inner ear and respiratory infections and may exacerbate childhood asthma.

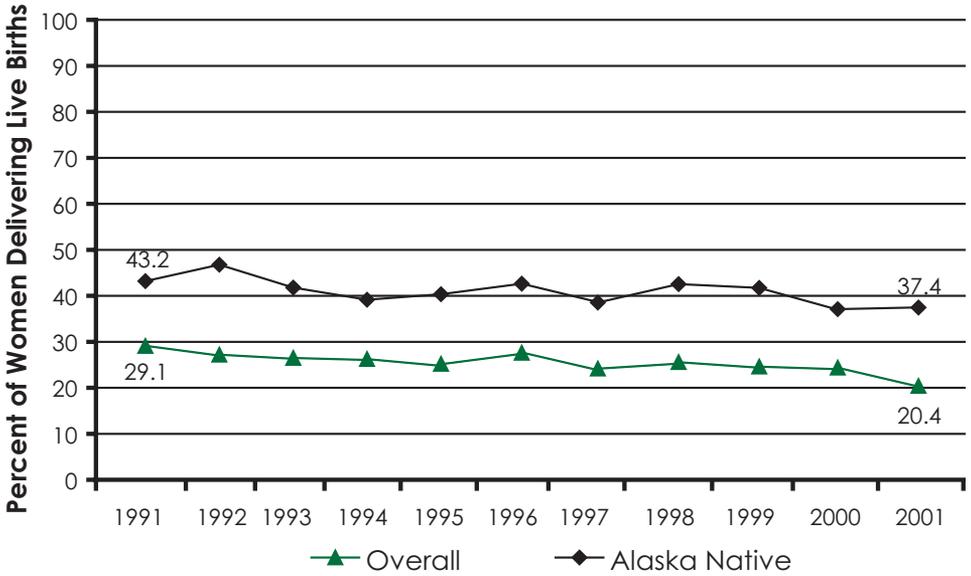
- Just over 20% of Alaskan women smoked cigarettes after delivering a live-born infant. This is consistent with the national estimate for smoking prevalence among adult females (21.6%)¹ but lower than the prevalence of smoking among the general population of Alaskan women ages 18 or over (25.9%).²
- The prevalence of postpartum smoking in Alaska decreased by 30% between 1991 and 2001. Between 2000 and 2001, postpartum smoking prevalence decreased by 16%, the largest annual decline since 1991.
- The racial disparity in the prevalence of postpartum smoking has not improved for Alaska Native women since 1991. Over 37% of Alaska Native women reported that they smoked cigarettes postpartum in 2001.
- The prevalence of smoking postpartum was 1.4 times higher than the prevalence of smoking during the last three months of pregnancy, indicating that some women who refrain from smoking during pregnancy start smoking again in the postpartum period.
- Women in the Northern region of Alaska were significantly more likely to use tobacco after having a baby than women from any other region of Alaska.

¹ Centers for Disease Control and Prevention. Percentage of Adults Ages 18 Years and Older by Cigarette Smoking Status And Number Of Cigarettes Smoked Per Day By Current Smokers. National Health Interview Surveys: 1997, 1998, 1999, 2000 (combined). http://www.cdc.gov/tobacco/research_data/adults_prev/adstat5.htm. (10/ 2004).

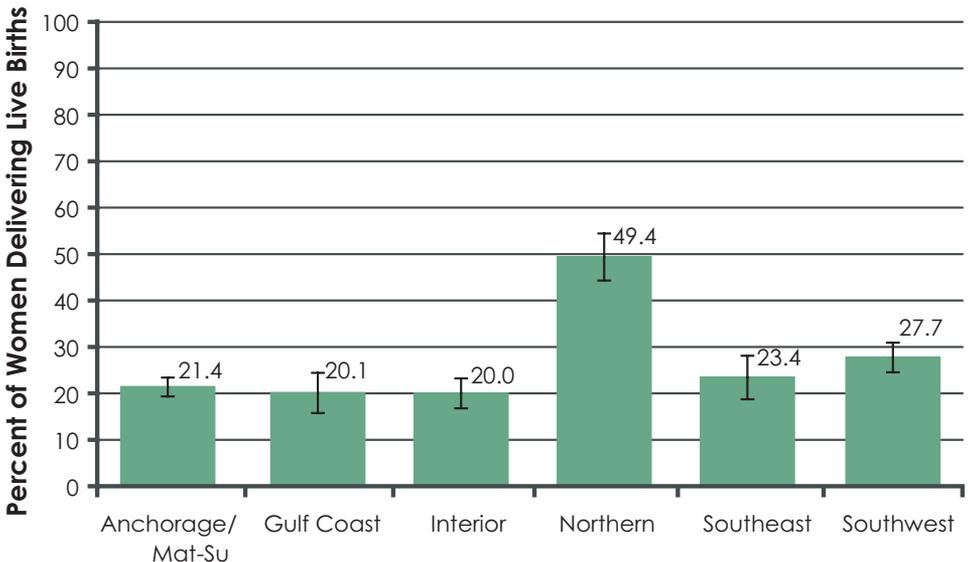
² Health Risks in Alaska Among Adults. (See References for full citation)

Maternal Health

Postpartum Tobacco Use by Race and Year Alaska, 1991-2001



Postpartum Tobacco Use by Region Alaska, 1999-2001



Postpartum Tobacco Use

Because cigarette smoking contributes to adverse birth outcomes and because pregnant women have frequent contact with the health care system, it is important to promote smoking cessation during pregnancy. About 80% of postpartum smokers in Alaska want to quit smoking; yet only 3% of Alaska mothers who had ever smoked indicated that they took classes on how to stop smoking while they were pregnant.¹

- Alaska Native women were more than 2 times as likely to smoke in the postpartum period as white women. Alaska Native women were the most likely race group to take prenatal smoking cessation classes – about 5% during 1996 to 1999.
- Postpartum smoking was strongly correlated with age. Teenagers were the most likely age group to smoke cigarettes in both the prenatal and postpartum periods. While the prevalence of tobacco use increased during the postnatal period for all age groups, the difference in the proportion of mothers who smoked during the postnatal, versus the prenatal, period was highest for teenagers.
- Postpartum smoking was also correlated with socio-economic indicators. Postpartum smoking was significantly higher in Alaskan women with lower educational status and was more than 2 times as high in Medicaid as non-Medicaid recipients.
- Among the 80% of mothers who smoked who would like to quit, “craving for a cigarette” was the number one barrier to quitting smoking (85.4%). If cost were not an issue, 74% of mothers who smoked say they would use a nicotine patch, gum, nasal spray or inhaler to aid them in quitting smoking.²

¹ Alaska MCH Data Book 2003, p 132. (See References for full citation)

² Alaska MCH Data Book 2003, p 132. (See References for full citation)

Maternal Health

Prevalence of Postpartum Tobacco Use by Selected Demographics Alaska, 2001

	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	15.9	946	1.5	(13.0 - 18.9)
Alaska Native	37.4	875	1.7	(34.1 - 40.8)
Black	7.4 *	31	4.2	(0.0 - 15.7)
Asian or Pacific Islander	6.6	36	3.6	(0.0 - 13.6)
Maternal Ethnicity				
Hispanic	11.8	63	4.1	(3.7 - 19.9)
Non-Hispanic	21.6	1741	1.2	(19.3 - 24.0)
Maternal Age				
15-19 years	38.3	362	3.9	(30.7 - 45.9)
20-24 years	25.3	656	2.3	(20.8 - 29.7)
25-34 years	15.7	731	1.5	(12.8 - 18.5)
35 years or older	13.6	157	2.6	(8.4 - 18.8)
Maternal Education				
<12 years	48.9	505	3.7	(41.7 - 56.1)
12 years	23.1	933	1.7	(19.7 - 26.5)
>12 years	10.4	412	1.5	(7.5 - 13.2)
Prenatal Medicaid Status				
Medicaid	30.1	1131	2.0	(26.2 - 34.0)
Non-Medicaid	13.6	750	1.2	(11.3 - 16.0)
OVERALL	20.4	1912	1.1	(18.3 - 22.5)

% Missing = 2.6

Core; Q30

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Pre-pregnancy Physical Abuse

A growing body of research on violence and reproductive health suggests that violence may constitute a more common health threat to pregnant women than preeclampsia, gestational diabetes or placenta previa.¹ While a number of adverse outcomes have been identified, there is more that we need to understand regarding physical abuse around the time of pregnancy. We do know that about one-third of women who are physically assaulted suffer injury that requires medical care. Physical abuse may result in psychological symptoms, economic cost, and death. National data show American Indian/Alaska Native populations to be more likely than other race groups to report intimate partner violence. Domestic violence, alcoholism and depression have been linked to high suicide rates in Native American populations.²

- Over 9% of women who delivered a live-born infant during 2001 experienced physical abuse during the 12 months before they became pregnant.
- Alaska Native women consistently reported a higher prevalence of pre-pregnancy abuse than the State average. Trend analyses for 1996-2001 indicated there has been no significant decline in the prevalence of pre-pregnancy physical abuse among Alaska Natives or the overall population.
- Women in the Northern and Southwest regions of Alaska were the most likely to report pre-pregnancy physical abuse.
- During 1996-1999, 89% of Alaskan women who experienced physical abuse during the 12 months before they got pregnant mentioned one person as the abuser. Of women who said they were abused, 76% indicated that their husband or partner was the abuser.³ Intimate partner violence accounts for approximately the same proportion of physical assault in the Alaska pre-pregnancy population as it does nationally.⁴

¹ Centers for Disease Control and Prevention, Division of Reproductive Health. Violence Against Women. <http://www.cdc.gov/reproductivehealth/violence/index.htm>. (10/2004).

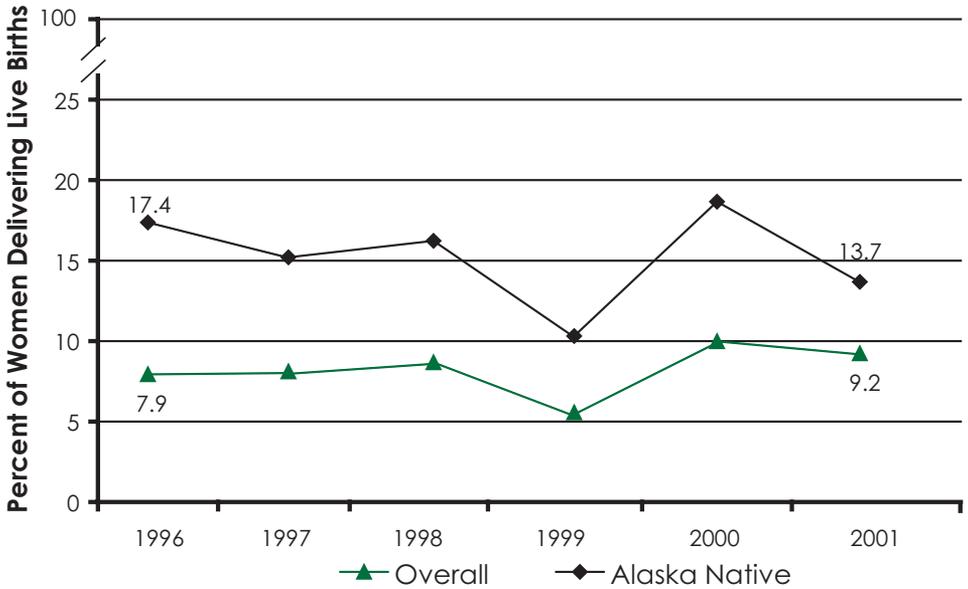
² Women's Health Information Center. Health Problems in American Indian/Alaskan Native Women: Suicide. <http://www.4woman.gov/minority/nasuicide.cfm>. (10/2004).

³ Alaska MCH Data Book 2003, p 134. (See References for full citation)

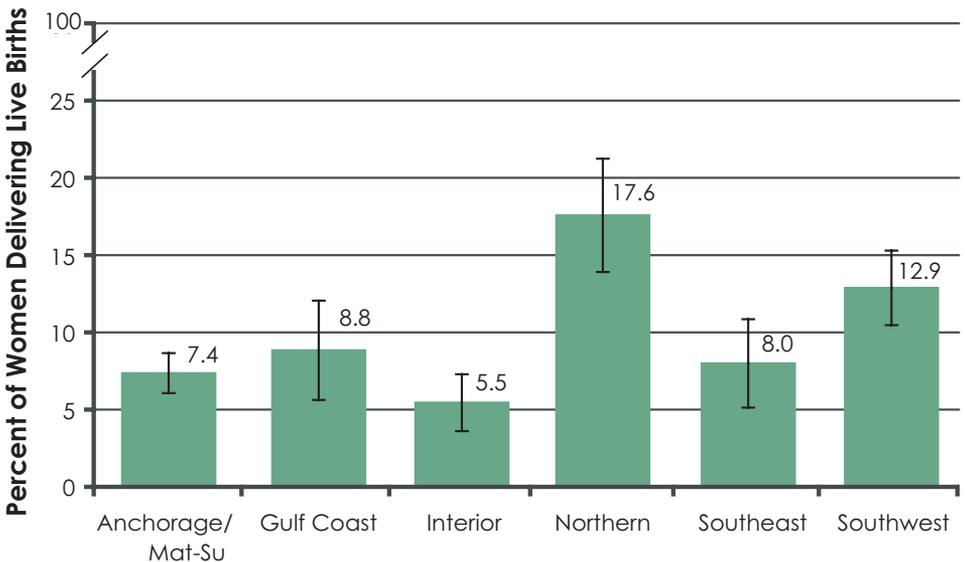
⁴ Centers for Disease Control and Prevention and National Institutes of Justice. Prevalence, Incidence and Consequences of Violence Against Women: Findings from the National Violence Against Women Survey (1995-6). Nov 1998. <http://www.ncjrs.org/pdffiles/172837.pdf>.

Maternal Health

Physical Abuse by Anyone 12 Months Before Pregnancy by Race and Year, Alaska, 1996-2001



Physical Abuse by Anyone 12 Months Before Pregnancy by Region, Alaska, 1999-2001



Pre-pregnancy Physical Abuse

PRAMS provides some of the most useful data on the characteristics of women who experience physical abuse around the time of pregnancy. Analysis of pooled PRAMS data from 14 participating states found higher rates of physical abuse in women who were younger, black, unmarried, less educated, on Medicaid, living in crowded conditions, entering prenatal care late, or smoking during the third trimester. Women who had unintended pregnancies are more likely to have experienced pre-pregnancy abuse than women with intended pregnancies.¹ Understanding the characteristics of women who are most at risk for abuse may help reduce the number of women affected by violence. Screening for physical abuse and referral to appropriate services is an important part of prenatal care.

- White women were the least likely to report pre-pregnancy abuse in Alaska. Approximately 6% of white women reported pre-pregnancy physical abuse in 2001. Alaska Native women were more than 2 times as likely as white women to have been abused, and black women may have been the most at-risk for pre-pregnancy abuse in Alaska.
- Alaskan women of all ages experienced pre-pregnancy physical abuse, but the youngest mothers were at greatest risk. Almost 19% of women under age 20 who delivered a live birth in 2001 experienced pre-pregnancy abuse.
- Pre-pregnancy abuse was more common among mothers who used Medicaid to help pay for their prenatal expenses. Physical abuse during the 12 months prior to pregnancy was 3 times higher among Medicaid than non-Medicaid recipients in 2001.
- Survey research in Alaska found that more than one-half of Alaska prenatal care providers estimated that 10% or more of their female patients had experienced abuse. Only 17% routinely screened for physical abuse at the first prenatal visit and 5% reported screening at follow-up visits.²

¹ Gazmararian JA, Petersen R, Spitz AM, et al. Violence and Reproductive Health: Current Knowledge and Future Research Directions. *Maternal and Child Health Journal*. 4(2):79-84. Jun 2000.

² Chamberlain L, Perham-Hester KA. Physicians' Screening Practices for Female Partner Abuse During Prenatal Visits. *Maternal and Child Health Journal*. 4(2): 141-148. Jun 2000.

Maternal Health

Prevalence of Pre-pregnancy Physical Abuse by Anyone by Selected Demographics Alaska, 2001

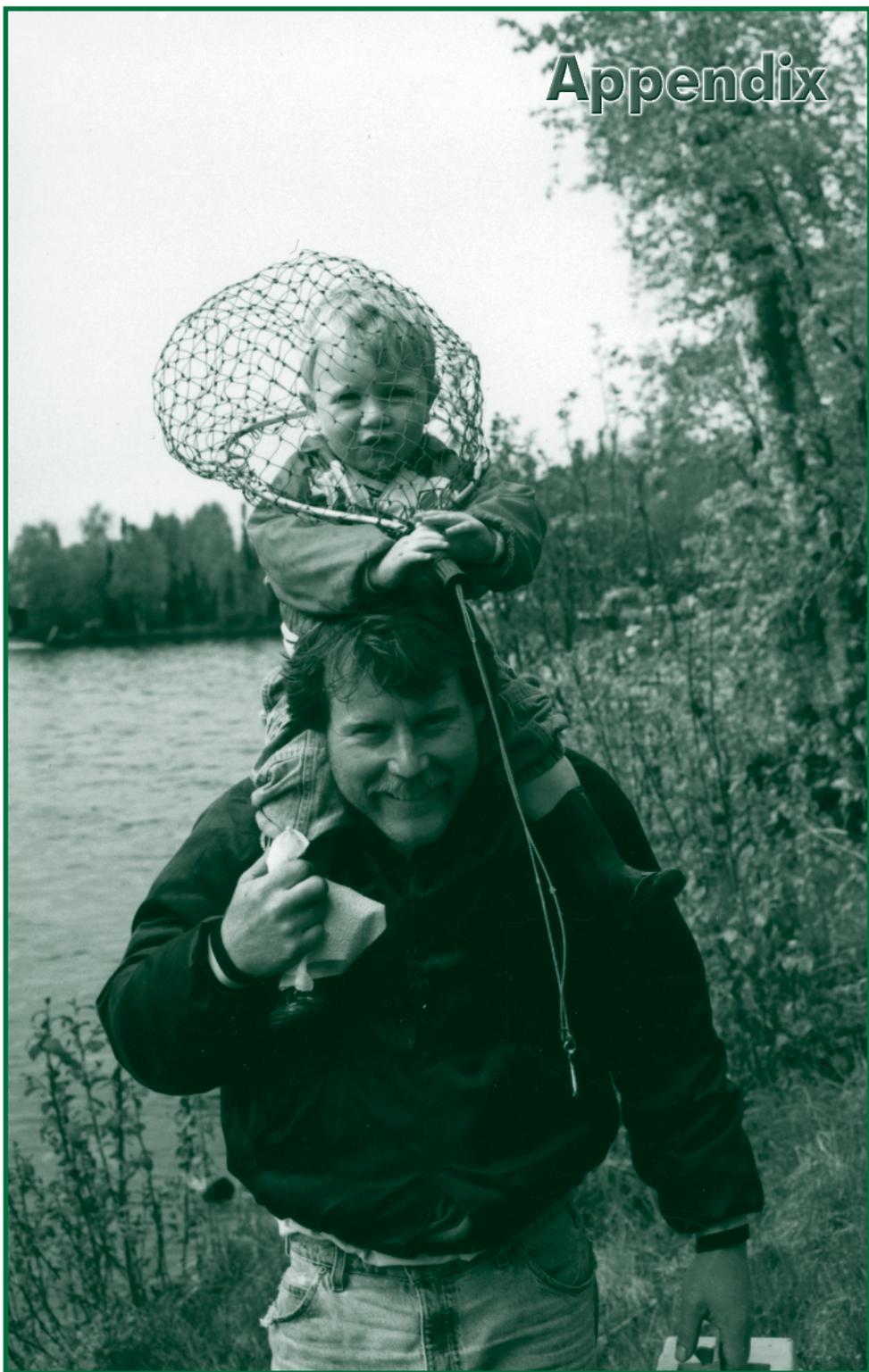
	Percent	Weighted n	Standard Error	95% CI
Maternal Race				
White	6.1	371	1.0	(4.2 - 8.1)
Alaska Native	13.7	323	1.2	(11.3 - 16.0)
Black	28.4 *	121	7.5	(13.8 - 43.0)
Asian or Pacific Islander	8.9	50	4.0	(1.2 - 16.7)
Maternal Ethnicity				
Hispanic	13.7	75	4.8	(4.2 - 23.1)
Non-Hispanic	9.2	757	0.9	(7.5 - 11.0)
Maternal Age				
15-19 years	18.6	174	3.4	(11.8 - 25.3)
20-24 years	10.5	282	1.6	(7.4 - 13.6)
25-34 years	8.3	396	1.2	(6.0 - 10.6)
35 years or older	2.7	31	1.2	(0.3 - 5.1)
Maternal Education				
<12 years	14.0	149	2.6	(9.0 - 19.0)
12 years	11.4	465	1.4	(8.6 - 14.1)
>12 years	5.6	226	1.1	(3.4 - 7.7)
Prenatal Medicaid Status				
Medicaid	15.3	589	1.6	(12.1 - 18.5)
Non-Medicaid	4.8	271	0.8	(3.3 - 6.4)
OVERALL	9.2	883	0.8	(7.6 - 10.9)

% Missing = 0.7

Core; Q35a, Q35b

* Data may be unreliable. Number of respondents was at least 30 but less than 60.

Appendix



Glossary

Alaska Native: This race category includes Alaska Natives and American Indians for purposes of this publication.

Body Mass Index (BMI): Body mass index measures one's height to weight ratio. It is calculated by the person's weight in kilograms divided by the square of the height in meters. Specific classifications are given below.

Underweight	$BMI < 19.8 \text{ kg/m}^2$
Normal weight	$19.8 \leq BMI < 25 \text{ kg/m}^2$
Overweight	$25 \leq BMI < 30 \text{ kg/m}^2$
Obese	$BMI \geq 30 \text{ kg/m}^2$

Childbearing Age: Women who are ages 15 through 44 years.

CI: Confidence Interval

Ethnicity: This category is independent of race. It indicates whether the birth certificate identified the mother as being of Hispanic origin or not.

ETS: Environmental Tobacco Smoke. Also commonly known as exposure to secondhand smoke.

Infant: Age from birth up to one year.

MCH: Maternal and Child Health

Moving Average: Using moving averages helps to smooth out the year to year variability that is often observed when dealing with small numbers. This smoothing technique increases the stability of the rate so that trends can be more easily detected and more meaningful comparisons can be made. An example of a three-year moving average for the year 1991, the rate is comprised of data from 1989-1991; 1992 is comprised of data from 1990-1992, and so forth.

Overweight/ Obesity: Having a body mass index greater than or equal to 25 kg/m^2 (See also Body Mass Index)

Physical abuse: Pushing, hitting, slapping, kicking, or any other way of physically hurting someone. (Definition used for the PRAMS Phase 3 data source during 1996-1999. Data collection during 2000-2001 added the term "choke".)

Population: When used in this publication to describe PRAMS data, it refers to Alaska-resident women delivering a live-born infant during the specified time period.

Postpartum Period: The point in time that the PRAMS respondent answers the questions asked. From two months through six months but usually around 15 weeks.

Pregnancy Risk Assessment Monitoring System (PRAMS): PRAMS is a population-based survey of Alaska-resident women who have recently delivered a live-born infant. It was initiated by the State of Alaska Division of Public Health, Section of Maternal, Child and Family Health in late 1990. PRAMS was developed by the Centers for Disease Control and Prevention (CDC) Division of Reproductive Health to gather information on the health risk behaviors and circumstances of pregnant and postpartum women. It is currently active in 33 states.

A systematic, stratified sampling approach is used to select approximately 160 mothers of newborns each month from the State of Alaska's live birth records for infants between two and six months of age. Questions cover the prenatal and postpartum period. Up to three mailed questionnaires are used to solicit a response. Phone follow-up for women who do not respond by mail was first initiated in 1997. Prevalences reflect statewide estimates for Alaska-resident women delivering a live-born infant during the specified time period. The response rate for the year 2001 was 83.3%.

Prevalence: Prevalence measures the number of people in a specified population that have the given characteristic at a given time.

Rate: A rate is defined as the number of events occurring in a population in a specified time period divided by the number of people in the population in the same specified time period.

WIC: The Special Supplemental Nutrition Program for Women, Infants and Children.

Indicator Definitions

Reproductive Health

Unintended Pregnancies

Percent of women who delivered a live-born infant who had a mistimed or unwanted pregnancy. NOTE: Data for year 2000 have a potential response bias because that survey lacked the lead-in statement which clarified that they should answer for their “new” baby.

Numerator: Number of women who indicated, postpartum, that just before getting pregnant, they wanted to be pregnant either later or never.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Live Births Despite the Use of Birth Control

Percent of women who delivered a live-born infant who indicated that they were doing something to keep from getting pregnant when they got pregnant with their new baby. Methods defined for the respondent were “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.”

Numerator: Number of women who indicated they were doing something to keep from getting pregnant when they got pregnant with their new baby.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 2001.

Prenatal Health

Medicaid Coverage for Prenatal Care

Percent of women who indicated Medicaid paid for a portion of their prenatal care.

Numerator: Number of women who indicated Medicaid paid either in part or in whole for their prenatal care.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Prenatal WIC Participation

Percent of women who participated in the WIC program during their pregnancy.

Numerator: Number of women who indicated that they were on WIC (the special supplemental nutrition program for women, infants, and children) during their pregnancy.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Knowledge of Folic Acid Benefits (Alaska-specific indicator)

Percent of women who had heard or read that taking the vitamin folic acid can help prevent some birth defects.

Numerator: Number of women who indicated they had heard or read that taking the vitamin folic acid can help prevent some birth defects.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1996-2001.

Prenatal Physical Abuse by Husband/Partner

Percent of women who were physically abused by their husband or partner during their pregnancy.

Numerator: Number of women who indicated their husband or partner physically abused them (i.e. pushed, hit, slapped, kicked, or otherwise hurt them) during their pregnancy. NOTE: Data collection in 2000-2001 asked the question directly (instead of defining physical abuse in a lead-in statement), added the term “choke”, and asked about the “husband or partner” in its own question. (see also pre-pregnancy physical abuse definition.)

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1996-2001.

Prenatal Substance Use**Alcohol (Any Use)**

Percent of women who consumed any alcohol during the last 3 months of their pregnancy.

Indicator Definitions

Numerator: Number of women who drank any alcohol during the last 3 months of their pregnancy.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Tobacco

Percent of women who smoked cigarettes during the last 3 months of their pregnancy.

Numerator: Number of women who smoked cigarettes during the last 3 months of their pregnancy. (NOTE: The question was asked of women who had smoked at least 100 cigarettes in their lifetime. Data collection in 2000-2001 changed the timeframe for smoking at least 100 cigarettes from “in your entire life” to “in the past 2 years”.)

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Marijuana (Alaska-specific indicator)

Percent of women who smoked marijuana or hash during pregnancy.

Numerator: Number of women who smoked marijuana or hash during pregnancy.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Smokeless Tobacco (Alaska-specific indicator)

Percent of women who used smokeless tobacco (chew or snuff) during pregnancy.

Numerator: Number of women who used smokeless tobacco (chew or snuff) during pregnancy.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1996-2001.

Infant Health

Breastfeeding Initiation

Percent of mothers of newborns who indicated that they had ever breastfed their newborn.

Numerator: Number of women who indicated they had ever breastfed their newborn.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Breastfeeding, 4 Weeks Postpartum

Percent of mothers of newborns who indicated that they had breastfed their newborn for at least 4 weeks.

Numerator: Number of women who indicated they had breastfed their newborn for at least 4 weeks.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Back-sleeping Infants

Percent of mothers of newborns who indicated (on average, 3.5 months postpartum) that they most regularly put their infant down on his/her back. NOTE: This only considers maternal responses of side, back, or stomach as valid responses (not combinations thereof).

Numerator: Number of women who indicated they most regularly put their infant down to sleep on his/her back.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1996-2001.

Mother-Infant Co-sleeping (Alaska-specific indicator)

Percent of mothers of newborns who indicated that they always or almost always, sometimes or never sleep with their infant in the same bed.

Indicator Definitions

Numerator: Number of women who indicated they sleep with their infant in the same bed. (NOTE: Data collection in 2000-2001 asks how often the mother or anyone else sleeps with the baby).

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Infant Exposure to Tobacco Smoke

Percent of mothers of newborns who indicated (on average, 3.5 months postpartum) that their newborn was in the same room with someone who is smoking for any length of time on an average day.

Numerator: Number of women who indicated that their newborn was in the same room with someone who is smoking for any length of time on an average day.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1996-2001.

Maternal Health

Pre-pregnancy Overweight/Obesity

Percent of women whose body mass index (as calculated from self-reported weight just before pregnancy and height) was at least 25 kg/m².

Numerator: Number of women whose pre-pregnancy body mass index was 25 kg/m² or greater.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001. (See Glossary for definition of Body Mass Index)

Postpartum Tobacco

Percent of women who currently smoke cigarettes (i.e. at the time of responding to the PRAMS survey).

Numerator: Number of women who indicated they currently smoke cigarettes, on average this was approximately 3.5 months postpartum. (NOTE: The question was asked of women

who had smoked at least 100 cigarettes in their lifetime. Data collection in 2000-2001 changed the timeframe for smoking at least 100 cigarettes from “in your entire life” to “in the past 2 years”.)

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1991-2001.

Physical Abuse by Anyone 12 Months Before Pregnancy (Pre-pregnancy Physical Abuse)

Percent of women who indicated someone (i.e. husband/partner, a family or household member other than the husband/partner, a friend, or someone else) physically abused them 12 months before pregnancy. Physical abuse was defined as pushing, hitting, slapping, kicking, or any other way of physically hurting someone. NOTE: Data collection in 2000-2001 asked the question directly (instead of defining physical abuse in a lead-in statement), added the term “choke”, and asked about the “husband or partner” and “anyone else” in two separate questions.

Numerator: Number of women who experienced physical abuse by anyone 12 months before pregnancy.

Denominator: Total number of Alaska-resident women who delivered a live-born infant.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), 1996-2001.

Live Births by Category and Area

Census Area	Unintended Births 1997-2001	Unintended Births 1997-2001	Avg Births 1997-2001 Unmarried 13-19 y.o.	
	n (average annual)	%	n	%
Anchorage	1561	41.7	302	78.4
Fairbanks NSB	547	39.4	98	66.1
Matanuska Susitna	342	47.2	65	81.0
Kenai Peninsula	276	47.4	40	59.5
Bethel	209	52.8	57	93.3
Juneau	148	38.5	24	97.4
Wade Hampton	113	56.6	37	94.6
Nome	96	53.9	35	97.8
Kodiak Island	75	28.7	16	60.2
Northwest Arctic B.	72	45.8	34	94.6
North Slope	70	54.7	31	91.9
Ketchikan Gateway	66	43.3	20	70.4
Dillingham	52	48.2	18	91.7
Valdez-Cordova	51	40.9	11	64.7
Yukon-Koyukuk	48	50.3	20	86.0
Sitka	38	27.9	4	56.1
SE Fairbanks	31	32.2	5	100.0
Wrangell-Petersburg	30	39.6	13	94.1
Prince of Wales	25	41.8	3	78.2
Denali Borough	17	67.0	1	100.0
Aleutians West	16	75.0	1	100.0
Aleutians East	11	33.9	5	100.0
Haines	9	49.1	0	0.0
Lake and Peninsula	8	38.0	5	100.0
Skagway/Hoonah/An	6	28.0	4	100.0
Bristol Bay	3	26.3	2	100.0
Yakutat	3	57.1	0	0.0
Total (Alaska)	3923	42.9	850	79.0

Note: Unintended means the pregnancy was wanted later or not wanted at all.
 * Alaska Bureau of Vital Statistics, 2000 Annual Report, pp. 5-33, crude birth rate, all races. (Most recent data available.)

Avg Births 1997-2001 Married 13-19 y.o.		Avg Births 1997-2001 Unmarried 20+ y.o.		Avg Births 1997-2001	1998-00 Crude Birth Rate*
n	%	n	%	n	per 1,000 pop
83	21.6	986	22.3	3739	16.2
50	33.9	289	17.6	1387	17.6
15	19.0	222	26.0	725	13.4
27	40.6	162	22.9	583	13.0
4	6.7	183	37.4	396	26.3
1	2.6	115	24.4	386	13.2
2	5.4	116	49.2	200	30.5
1	2.2	105	52.9	178	22.0
11	39.8	66	21.2	261	17.9
2	5.4	104	58.3	157	24.8
3	8.1	73	54.8	128	20.2
9	29.6	54	30.2	152	13.7
2	8.3	48	38.9	107	20.4
6	35.3	29	20.7	125	12.3
3	14.0	53	50.3	95	17.6
3	44.0	24	14.8	135	13.6
0	0.0	30	25.1	96	15.4
1	5.9	18	21.2	76	12.1
1	21.8	24	27.7	61	13.3
0	0.0	15	49.2	25	10.1
0	0.0	15	51.9	21	7.1
0	0.0	16	44.9	32	8.9
2	100.0	6	26.0	18	9.0
0	0.0	9	35.8	20	14.7
0	0.0	7	26.9	22	8.3
0	0.0	3	17.4	13	13.9
0	0.0	4	57.1	6	7.8
225	21.0	2775	25.6	9145	16.0

Technical Notes

The complete PRAMS methodology has been described elsewhere.^{1,2} Because PRAMS employs a complex survey design, appropriate statistical methods must be used when analyzing the data. Percentages and standard errors were calculated for the characteristic of interest using PROC CROSSTAB in SURvey DATA ANALYSIS Software, or SUDAAN.³ SUDAAN takes the complex survey design into account, in particular, when standard errors are computed. The 95% confidence intervals (CI) were computed using the formula $CI = \text{percentage} \pm (1.96 \times \text{standard error})$. The weighted *n* is the estimated number of women in the population with the characteristic(s) of interest. All missing (blank and “don’t know”) observations are excluded when calculating the percentages. All tables, except the PRAMS-eligible table on page 15, were produced using weighted PRAMS data.

Regarding the demographic tables for birth year 2001:

- The percentage of missing values for the overall percentage of the indicator of interest is noted.
- Because estimates based on small samples are imprecise and may be biased, estimates for which the number of respondents (not shown) was less than 30 are not reported.
- Estimates based on sample sizes between 30 and 60 are reported but noted because the estimates may be unreliable.

Brief summary of technical results for the demographic tables for birth year 2001:

- All missing percentages for the selected indicators were less than 10%.
- Percentages were reported for every breakdown, i.e. there were at least 30 respondents.
- All percentages of selected indicators for black women who delivered a live-born infant in Alaska during 2001 were flagged because the number of respondents was between 30 and 60.

All statistical analyses were performed at a significance level of $\alpha=.05$. Any mention of a significant trend or significant difference between two groups implies that it is statistically significant at $\alpha=.05$.

Trend Analyses

Tests for linear trend for each indicator were completed using logistic regression. We utilized PROC LOGISTIC in SUDAAN to test for linear trend at the 95% confidence level. *P* Values $\leq .05$ are considered to be statistically significant. *P* Values for all trends are reported in the Detailed Tables section that follows.

Comparison Between Groups

We utilize several methods to make comparisons between groups, such as univariate analyses, rate ratios, and relative percent difference.

Univariate Analysis

We performed univariate analyses for selected demographics (race, ethnicity, maternal age, maternal education, and prenatal Medicaid status) on all indicators for birth year 2001. Using PROC CROSSTAB in SUDAAN, we calculated the standard errors for each subpopulation of interest and constructed 95% confidence intervals. Groups were determined to be significantly different if their respective confidence intervals did not overlap. Note that analyses that control for more than one factor at a time (multivariate analysis) may show statistical significance where the univariate analysis does not.

Rate Ratios

Significant differences between groups have been noted within the narrative and have been examined using rate ratios. Rate ratios, the ratio of two rates, are used to compare rates for two populations – the general formula follows:

$$RR = \frac{(E_1 / P_1) \times 10^n}{(E_2 / P_2) \times 10^n} = \frac{Rate_1}{Rate_2}$$

- where
- E_1 = number of events occurring in population 1
 - E_2 = number of events occurring in population 2
 - P_1 = number of people in population 1 at risk of an event
 - P_2 = number of people in population 2 at risk of an event
 - n = base for multiplier
 - $Rate_1$ = rate for population 1
 - $Rate_2$ = rate for population 2

so $n = 3 \Rightarrow 10^3$ would give a rate per 1,000

Note: The multiplier, 10^n , must be the same for both rates. A rate ratio of 1.0 indicates that there is no difference in the race-specific or age-specific rates for the two populations being compared. It is customary for the group of interest to be labeled as population 1 and the reference group as population 2, so, the group of interest is always in the numerator.

Technical Notes

Relative Percent Difference

We used relative percent difference to compare differences between groups and when comparing Alaska to the United States overall.

$$RPD = \frac{(P_1 - P_2)}{P_2} \times 100 = \left(\frac{P_1}{P_2} - 1 \right) \times 100$$

where P_1 = prevalence of event in population 1

P_2 = prevalence of event in population 2

Note: It is customary for the group of interest to be labeled as population 1 and the reference group as population 2, so, the group of interest is always in the numerator.

Percent Change

Percent change between two time periods is calculated as follows:

$$PC = \frac{(P_n - P_o)}{P_o} \times 100$$

where P_n = later time period

P_o = earlier time period

- ¹ Gilbert BC, Shulman HB, Fischer LA, Rogers MM. The Pregnancy Risk Assessment Monitoring System (PRAMS): Methods and 1996 Response Rates from 11 States. *Maternal Child Health Journal*; 3(4):199-209. Dec 1999.
- ² Adams MM, Shulman HB, Bruce C, Hogue C, Brogan D, the PRAMS Working Group. The Pregnancy Risk Assessment Monitoring System: Design, Questionnaire, Data Collection and Response Rates. *Pediatric and Perinatal Epidemiology*; 5(3):333-46. Jul 1991.
- ³ Shah BV, Barnwell BG, Bieler GS. SUDAAN User's Manual: Software for Analysis of Correlated Data. Release 6.40. Research Triangle Park, NC: Research Triangle Institute. 1995.

Detailed Tables



Detailed Trend Data

Chapter 1: Population Characteristics	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	P Value
Crude Birth Rate												
Alaska	20.5	20.0	18.6	17.8	17.0	16.6	16.3	16.1	16.0	15.9	15.8	0.00 *
U.S.	16.3	15.9	15.5	15.2	14.8	14.7	14.5	14.6	14.5	14.4	14.1	0.00 *
Chapter 2: Reproductive Health	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	P Value
Unintended Pregnancies Among Women Delivering Live Births												
Overall	42.5	45.5	43.5	42.6	40.8	41.6	40.5	42.8	42.5	43.2	45.4	0.93
Alaska Native	50.1	55.1	52.4	54.0	49.4	45.1	46.8	53.4	53.4	54.3	54.5	0.27
Chapter 3: Prenatal Health	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	P Value
Protective Behaviors												
Medicaid Coverage for Prenatal Care												
Overall	28.2	29.7	31.3	33.3	32.6	32.4	36.0	35.2	39.0	41.1	40.8	0.00 *
Alaska Native	35.8	42.9	46.1	48.4	47.9	50.2	51.8	53.5	57.5	56.6	60.7	0.00 *
Prenatal WIC Participation												
Overall	29.7	30.7	32.6	33.2	42.3	44.4	41.4	47.9	47.0	48.5	45.4	0.00 *
Alaska Native	49.8	49.0	50.5	53.0	63.4	60.8	55.3	66.8	61.0	66.3	62.1	0.00 *
Knowledge of Folic Acid Benefits												
Overall						63.0	69.9	70.7	77.5	80.8	80.5	0.00 *
Alaska Native						39.5	48.6	48.4	60.9	62.3	63.1	0.00 *
Risk Behaviors	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	P Value
Prenatal Physical Abuse by Husband/Partner												
Overall						5.6	4.0	3.8	4.1	5.2	5.0	0.76
Alaska Native						12.3	7.4	8.7	6.5	9.6	7.3	0.06

Any Prenatal Alcohol Use (last 3 months)													
Overall	10.3	10.3	7.7	7.4	6.6	6.4	6.6	4.3	4.4	5.3	5.2	0.00 *	
Alaska Native	7.8	8.6	5.8	5.0	6.0	4.2	5.5	3.7	4.1	5.5	3.1	0.00 *	
Prenatal Tobacco Use (last 3 months)													
Overall	23.2	21.3	20.9	20.8	18.2	21.6	17.6	18.3	16.6	16.8	14.7	0.00 *	
Alaska Native	31.7	36.5	31.3	31.7	31.3	33.0	29.0	32.8	29.2	29.4	27.8	0.00 *	
Prenatal Marijuana Use													
Overall	5.8	5.5	5.0	3.7	5.2	5.3	6.5	4.2	5.4	4.5	5.1	0.49	
Alaska Native	10.8	12.7	11.5	7.4	8.3	10.6	9.8	9.4	9.9	6.4	8.8	0.00 *	
Prenatal Smokeless Tobacco Use													
Overall						6.5	5.9	6.5	5.6	5.5	4.7	0.00 *	
Alaska Native						26.5	21.3	22.0	20.4	19.9	17.5	0.00 *	
Chapter 4: Infant Health	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	P Value	
Breastfeeding Initiation													
Overall	79.1	77.6	83.8	83.7	84.2	85.5	86.4	87.9	89.0	88.9	90.6	0.00 *	
Alaska Native	73.3	74.1	77.7	76.7	80.6	80.5	79.3	85.5	84.4	83.3	86.7	0.00 *	
Breastfeeding, 4 Weeks Postpartum													
Overall	67.8	66.4	70.4	69.1	72.5	74.3	75.3	75.5	77.3	79.0	79.6	0.00 *	
Alaska Native	63.0	59.8	65.9	62.9	68.0	67.1	66.8	69.2	72.2	71.1	75.2	0.00 *	
Placing Infants to Sleep on Their Backs													
Overall						40.8	48.2	59.6	60.5	66.8	69.7	0.00 *	
Alaska Native						38.6	45.7	52.1	58.8	65.5	69.9	0.00 *	

Mother-Infant Always/Almost Always Co-Sleeping		Overall	15.9	18.9	21.3	20.8	24.5	32.9	35.2	35.8	38.4	39.9	38.7	0.00 *
		Alaska Native	35.1	39.1	42.5	42.3	40.6	51.1	55.3	55.2	52.9	56.0	57.1	0.00 *
Mother-Infant Co-Sleeping		Overall	15.9	18.9	21.3	20.8	24.5	32.9	35.2	35.8	38.4	39.9	38.7	0.00 *
		Always/Almost Always	15.9	18.9	21.3	20.8	24.5	32.9	35.2	35.8	38.4	39.9	38.7	0.00 *
		Sometimes	41.8	42.0	41.3	47.0	43.5	41.5	41.5	38.1	39.1	41.1	41.3	0.04 *
		Never	42.2	39.2	37.4	32.3	32.1	25.6	23.3	26.1	22.5	19.1	19.9	0.00 *
Infant Exposure to Secondhand Smoke		Overall						8.6	6.8	4.5	4.4	5.3	3.6	0.00 *
		Alaska Native						5.6	3.3	3.7	3.3	2.8	4.3	0.32
Chapter 5: Maternal Health			1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	P Value
Pre-pregnancy Overweight/Obesity		Overall	26.8	27.7	29.6	30.8	32.0	37.3	32.2	37.2	39.6	41.1	42.4	0.00 *
		Alaska Native	33.4	33.5	38.2	37.8	37.6	44.8	42.0	44.7	49.3	53.1	49.3	0.00 *
Postpartum Tobacco Use		Overall	29.1	27.2	26.5	26.3	25.2	27.6	24.2	25.6	24.6	24.4	20.4	0.00 *
		Alaska Native	43.2	46.8	41.8	39.2	40.4	42.6	38.6	42.6	41.7	37.1	37.4	0.00 *
Physical Abuse by Anyone 12 Months Before Pregnancy		Overall						7.9	8.1	8.7	5.6	10.0	9.2	0.18
		Alaska Native						17.4	15.2	16.2	10.3	18.7	13.7	0.31

* P Value for trend is statistically significant at the 0.05 level.

Detailed Regional Data

Chapter 2: Reproductive Health

Unintended Pregnancies Among Women Delivering Live Births	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	43.0	1.3	40.5	45.6
	Gulf Coast	37.9	2.8	32.3	43.4
	Interior	42.1	2.1	37.9	46.3
	Northern	54.0	2.6	48.9	59.1
	Southeast	42.0	2.9	36.3	47.6
	Southwest	53.1	1.9	49.4	56.9

Chapter 3: Prenatal Health: Protective Behaviors

Medicaid Coverage for Prenatal Care	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	36.5	1.3	34.0	38.9
	Gulf Coast	49.1	2.9	43.4	54.7
	Interior	31.4	1.9	27.7	35.2
	Northern	36.4	2.4	31.7	41.2
	Southeast	43.7	2.9	38.1	49.3
	Southwest	68.8	1.8	65.2	72.3

Prenatal WIC Participation	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	42.4	1.3	39.9	44.9
	Gulf Coast	45.7	2.8	40.1	51.3
	Interior	50.8	2.1	46.6	54.9
	Northern	56.2	2.6	51.2	61.2
	Southeast	39.4	2.8	34.0	44.9
	Southwest	68.5	1.8	65.0	71.9

Knowledge of Folic Acid Benefits	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	83.0	1.0	81.1	84.9
	Gulf Coast	83.0	2.1	78.9	87.1
	Interior	84.5	1.5	81.6	87.4
	Northern	60.3	2.5	55.4	65.2
	Southeast	84.7	1.9	80.9	88.5
	Southwest	52.1	1.8	48.5	55.7

Chapter 3: Prenatal Health: Risk Behaviors

Prenatal Physical Abuse by Husband/Partner	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	4.0	0.5	3.0	4.9
	Gulf Coast	5.1	1.3	2.6	7.6
	Interior	3.8	0.8	2.2	5.4
	Northern	8.1	1.2	5.6	10.5
	Southeast	5.3	1.3	2.8	7.8
	Southwest	8.0	1.0	6.0	10.0

Prenatal Alcohol Use (last 3 months)	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	5.5	0.6	4.4	6.7
	Gulf Coast	3.9	1.0	2.0	5.8
	Interior	4.9	0.9	3.1	6.7
	Northern	5.9	1.4	3.0	8.7
	Southeast	2.5	1.0	0.6	4.4
	Southwest	4.9	0.9	3.2	6.7

Prenatal Tobacco Use (last 3 months)	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	15.2	0.9	13.4	16.9
	Gulf Coast	14.0	1.8	10.4	17.5
	Interior	11.2	1.3	8.8	13.7
	Northern	41.1	2.5	36.2	46.0
	Southeast	14.7	2.0	10.8	18.6
	Southwest	20.4	1.5	17.5	23.3

Prenatal Marijuana Use	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	4.2	0.5	3.2	5.2
	Gulf Coast	6.5	1.4	3.8	9.1
	Interior	3.0	0.7	1.6	4.3
	Northern	13.8	1.6	10.6	16.9
	Southeast	4.9	1.2	2.5	7.3
	Southwest	6.8	0.9	4.9	8.6

Prenatal Smokeless Tobacco Use	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	1.2	1.0	0.0	3.1
	Gulf Coast	1.5	2.1	0.0	5.6
	Interior	1.2	1.5	0.0	4.1
	Northern	6.1	2.5	1.2	11.0
	Southeast	1.4	1.9	0.0	5.2
	Southwest	43.9	1.8	40.3	47.5

Chapter 4: Infant Health

Breastfeeding Initiation	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	90.1	0.8	88.6	91.7
	Gulf Coast	94.1	1.3	91.5	96.7
	Interior	86.2	1.5	83.3	89.0
	Northern	82.7	1.8	79.1	86.3
	Southeast	93.8	1.3	91.2	96.4
	Southwest	86.1	1.3	83.5	88.7

Breastfeeding, 4 Weeks Postpartum	Region	%	SE	Lower	Upper
	Anchorage/Mat-Su	79.1	1.1	77.0	81.3
	Gulf Coast	82.9	2.3	78.5	87.3
	Interior	74.5	1.9	70.8	78.1
	Northern	69.5	2.4	64.9	74.1
	Southeast	86.0	1.9	82.2	89.8
	Southwest	76.0	1.7	72.7	79.2

Placing Infants to Sleep on Their Backs

Region	%	SE	Lower	Upper
Anchorage/Mat-Su	66.5	1.3	64.0	69.0
Gulf Coast	66.6	2.8	61.2	72.0
Interior	65.0	2.2	60.8	69.2
Northern	59.9	2.9	54.3	65.5
Southeast	70.2	2.7	64.9	75.6
Southwest	57.2	2.0	53.2	61.2

Mother-Infant Always/Almost Always Co-Sleeping

Region	%	SE	Lower	Upper
Anchorage/Mat-Su	36.5	1.3	34.0	38.9
Gulf Coast	36.5	2.8	31.1	41.9
Interior	28.6	1.9	24.8	32.4
Northern	64.7	2.7	59.4	69.9
Southeast	43.9	2.9	38.2	49.6
Southwest	58.9	2.0	55.1	62.7

Infant Exposure to Secondhand Smoke

Region	%	SE	Lower	Upper
Anchorage/Mat-Su	5.2	0.6	4.0	6.4
Gulf Coast	7.0	1.5	4.2	9.9
Interior	3.4	0.8	1.9	5.0
Northern	4.1	1.2	1.7	6.4
Southeast	2.1	0.8	0.7	3.6
Southwest	1.6	0.5	0.7	2.5

Chapter 5: Maternal Health**Pre-pregnancy Overweight/Obesity**

Region	%	SE	Lower	Upper
Anchorage/Mat-Su	39.2	1.3	36.7	41.7
Gulf Coast	43.2	2.9	37.5	48.9
Interior	38.7	2.1	34.6	42.8
Northern	52.9	2.6	47.8	58.1
Southeast	40.1	2.9	34.5	45.7
Southwest	49.1	2.0	45.2	53.1

Postpartum Tobacco Use

Region	%	SE	Lower	Upper
Anchorage/Mat-Su	21.4	1.0	19.3	23.4
Gulf Coast	20.1	2.2	15.8	24.4
Interior	20.0	1.7	16.8	23.2
Northern	49.4	2.6	44.3	54.4
Southeast	23.4	2.4	18.7	28.1
Southwest	27.7	1.6	24.5	30.9

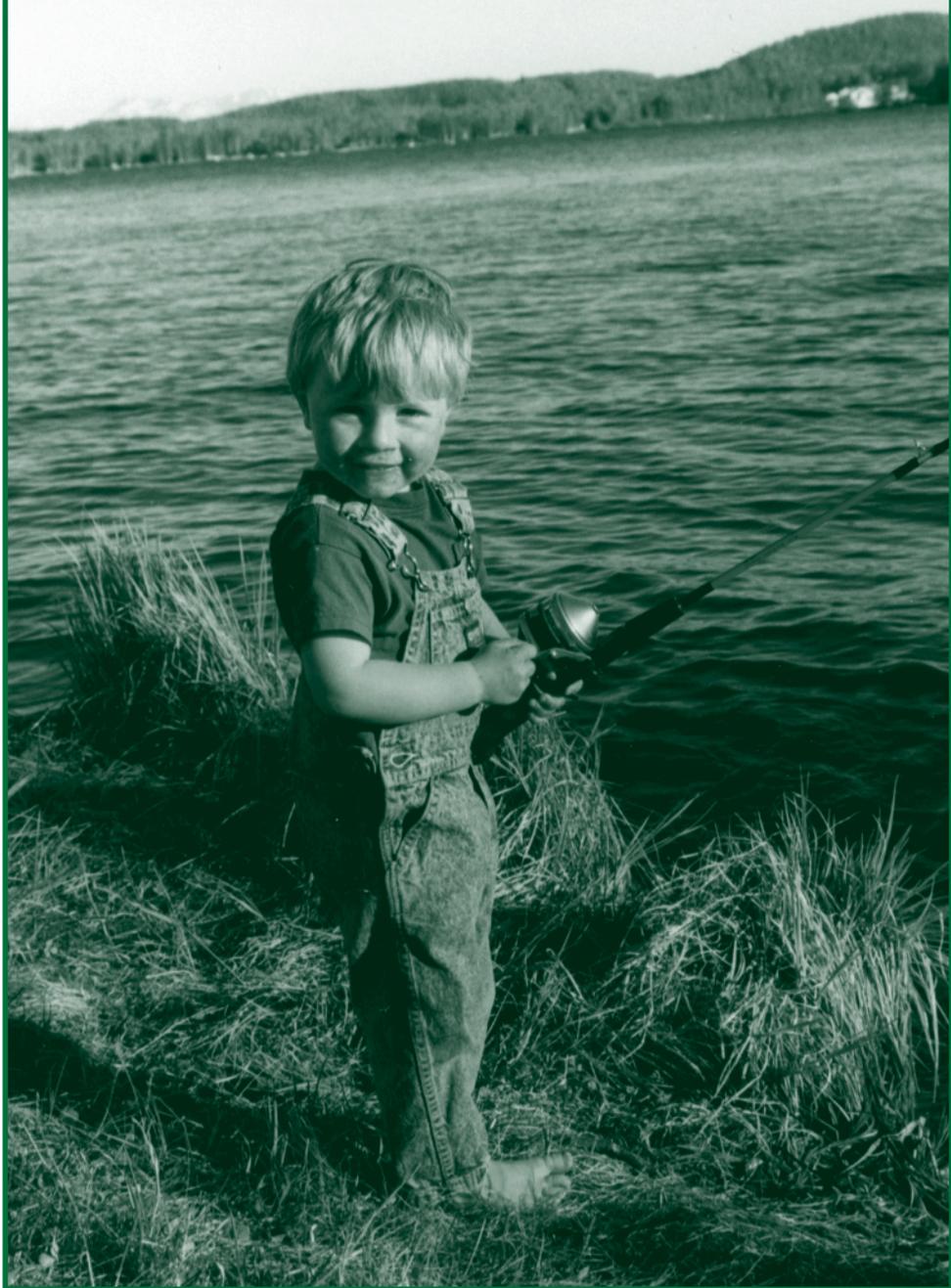
Physical Abuse by Anyone 12 Months Before Pregnancy

Region	%	SE	Lower	Upper
Anchorage/Mat-Su	7.4	0.7	6.1	8.7
Gulf Coast	8.8	1.6	5.6	12.1
Interior	5.5	0.9	3.6	7.3
Northern	17.6	1.9	13.9	21.2
Southeast	8.0	1.5	5.1	10.9
Southwest	12.9	1.2	10.5	15.3

SE = standard error

Lower and Upper refer to the 95% confidence interval limits on the regional % estimate of the indicator referenced

Alaska PRAMS Phase 4 Survey



Alaska PRAMS Phase 4 Survey

First, we would like to ask a few questions about you and the time before you became pregnant with your new baby. Please check the box next to your answer.

1. *Just before* you got pregnant, did you have health insurance? (Do not count Medicaid).

- No
 Yes

2. *Just before* you got pregnant, were you on Medicaid?

- No
 Yes

3. In the month *before* you got pregnant with your new baby, how many times a week did you take a multivitamin (a pill that contains many different vitamins and minerals)?

- I didn't take a multivitamin at all
 1 to 3 times a week
 4 to 6 times a week
 Every day of the week

4. What is your date of birth?

Month Day Year

5. *Just before* you got pregnant, how much did you weigh?

Pounds OR Kilos

6. How tall are you without shoes?

Feet Inches

OR Centimeters

7. *Before* your new baby, did you ever have any other babies who were born alive?

- No → **Go to Question 10**
 Yes

8. Did the baby born just before your new one weigh 5 pounds, 8 ounces (2.5 kilos) or less at birth?

- No
 Yes

9. Was the baby just before your new one born *more* than 3 weeks before its due date?

- No
 Yes

10. How old were you when you had your first menstrual period?

Years old

11. How old were you when you got pregnant with your first baby?

Years old

Alaska PRAMS Phase 4 Survey

Next are some questions about the time just before your pregnancy with your new baby.

12. Thinking back to *just before* you got pregnant, how did you feel about becoming pregnant?

Check one answer

- I wanted to be pregnant sooner
- I wanted to be pregnant later
- I wanted to be pregnant then
- I didn't want to be pregnant then or at any time in the future

13. When you got pregnant with your new baby, were you trying to become pregnant?

- No
- Yes →

Go to Question 16

14. When you got pregnant with your new baby, were you or your husband or partner doing anything to keep from getting pregnant? (Some things people do to keep from getting pregnant include 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.)

- No
- Yes →

Go to Question 16

15. What were your or your husband's or partner's reasons for not doing anything to keep from getting pregnant?

Check all that apply

- I didn't mind if I got pregnant
- I thought I could not get pregnant at that time
- I had side effects from the birth control method I was using
- I had problems getting birth control when I needed it
- I thought my husband or partner or I was sterile (could not get pregnant at all)
- My husband or partner didn't want to use anything
- Other → Please tell us:

The next questions are about the prenatal care you received during your most recent pregnancy. Prenatal care includes visits to a doctor, nurse, or other health care worker before your baby was born to get checkups and advice about pregnancy. (It may help to look at a calendar when you answer these questions.)

16. How many weeks or months pregnant were you when you were sure you were pregnant? (For example, you had a pregnancy test or a doctor or nurse said you were pregnant.)

Weeks OR Months

- I don't remember

Alaska PRAMS Phase 4 Survey

17. How many weeks or months pregnant were you when you had your first visit for prenatal care? (Don't count a visit that was only for a pregnancy test or only for WIC [the Special Supplemental Nutrition Program for Women, Infants, and Children].)

_____ Weeks OR _____ Months

I didn't go for prenatal care

18. Did you get prenatal care as early in your pregnancy as you wanted?

- No
- Yes →
- I didn't want prenatal care →

**Go to
Question 20**

19. Did any of these things keep you from getting prenatal care as early as you wanted?

Check all that apply

- I couldn't get an appointment earlier in my pregnancy
- I didn't have enough money or insurance to pay for my visits
- I didn't know that I was pregnant
- I had no way to get to the clinic or doctor's office
- The doctor or my health plan would not start care earlier
- I didn't have my Medicaid card
- I had no one to take care of my children
- I had too many other things going on
- Other → Please tell us:

If you did not go for prenatal care, go to Page 4, Question 23.

20. Where did you go *most of the time* for your prenatal visits? (Do not include visits for WIC.)

Check one answer

- Hospital clinic
- Health department clinic
- Private doctor's office or HMO clinic
- Military facility
- Clinic for Alaska Natives
- Other → Please tell us:

21. How was your prenatal care paid for?

Check all that apply

- Medicaid
- Personal income (cash, check, or credit card)
- Health insurance or HMO
- Military (including TRICARE)
- Alaska Native Health Service or Native Regional Corporation
- Other → Please tell us:

Alaska PRAMS Phase 4 Survey

22. During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk with you about any of the things listed below? (Please count only discussions, not reading materials or videos.)
For each item, circle **Y** (Yes) if someone talked with you about it or circle **N** (No) if no one talked with you about it.

	No	Yes
a. How smoking during pregnancy could affect your baby	N	Y
b. Breastfeeding your baby	N	Y
c. How drinking alcohol during pregnancy could affect your baby	N	Y
d. Using a seat belt during your pregnancy	N	Y
e. Birth control methods to use after your pregnancy	N	Y
f. Medicines that are safe to take during your pregnancy	N	Y
g. How using illegal drugs could affect your baby	N	Y
h. Doing tests to screen for birth defects or diseases that run in your family	N	Y
i. What to do if your labor starts early	N	Y
j. Getting your blood tested for HIV (the virus that causes AIDS)	N	Y
k. Physical abuse to women by their husbands or partners	N	Y

23. Have you ever heard or read that taking the vitamin folic acid can help prevent some birth defects?

- No
 Yes

The next questions are about your most recent pregnancy and things that might have happened during your pregnancy.

24. During your pregnancy, were you on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children)?

- No
 Yes

25. Did you have any of these problems during your pregnancy? For each item, circle **Y** (Yes) if you had the problem or circle **N** (No) if you did not.

	No	Yes
a. Labor pains more than 3 weeks before your baby was due (preterm or early labor)	N	Y
b. High blood pressure (including preeclampsia or toxemia) or retained water (edema)	N	Y
c. Vaginal bleeding	N	Y
d. Problems with the placenta (such as abruptio placentae, placenta previa)	N	Y
e. Severe nausea, vomiting, or dehydration	N	Y
f. High blood sugar (diabetes)	N	Y
g. Kidney or bladder (urinary tract) infection	N	Y
h. Water broke more than 3 weeks before your baby was due (premature rupture of membranes, PROM)	N	Y
i. Cervix had to be sewn shut (incompetent cervix, cerclage)	N	Y
j. You were hurt in a car accident	N	Y

If you did not have any of these problems, go to Question 27.

Alaska PRAMS Phase 4 Survey

26. Did you do any of the following things because of these problem(s)?

Check all that apply

- I went to the hospital or emergency room and stayed less than 1 day
- I went to the hospital and stayed 1 to 7 days
- I went to the hospital and stayed more than 7 days
- I stayed in bed at home more than 2 days because of my doctor's or nurse's advice

The next questions are about smoking cigarettes and drinking alcohol.

27. Have you smoked at least 100 cigarettes in the past 2 years? (A pack has 20 cigarettes.)

- No →
- Yes

Go to Question 31

28. In the 3 months before you got pregnant, how many cigarettes or packs of cigarettes did you smoke on an average day? (A pack has 20 cigarettes.)

_____ Cigarettes OR _____ Packs

- Less than 1 cigarette a day
- I didn't smoke
- I don't know

29. In the last 3 months of your pregnancy, how many cigarettes or packs of cigarettes did you smoke on an average day?

_____ Cigarettes OR _____ Packs

- Less than 1 cigarette a day
- I didn't smoke
- I don't know

30. How many cigarettes or packs of cigarettes do you smoke on an average day now?

_____ Cigarettes OR _____ Packs

- Less than 1 cigarette a day
- I don't smoke
- I don't know

31. Have you had any alcoholic drinks in the past 2 years? (A drink is 1 glass of wine, wine cooler, can or bottle of beer, shot of liquor, or mixed drink.)

- No →
- Yes

Go to Page 6, Question 34

32. a. During the 3 months before you got pregnant, how many alcoholic drinks did you have in an average week?

- I didn't drink then
- Less than 1 drink a week
- 1 to 3 drinks a week
- 4 to 6 drinks a week
- 7 to 13 drinks a week
- 14 drinks or more a week
- I don't know

Alaska PRAMS Phase 4 Survey

b. During the 3 months before you got pregnant, how many times did you drink 5 alcoholic drinks or more in one sitting?

Times

- I didn't drink then
- I don't know

33. a. During the last 3 months of your pregnancy, how many alcoholic drinks did you have in an average week?

- I didn't drink then
- Less than 1 drink a week
- 1 to 3 drinks a week
- 4 to 6 drinks a week
- 7 to 13 drinks a week
- 14 drinks or more a week
- I don't know

b. During the last 3 months of your pregnancy, how many times did you drink 5 alcoholic drinks or more in one sitting?

Times

- I didn't drink then
- I don't know

Pregnancy can be a difficult time for some women. These next questions are about things that may have happened before and during your most recent pregnancy.

34. This question is about things that may have happened during the 12 months before your new baby was born. For each item, circle Y (Yes) if it happened to you or circle N (No) if it did not. (It may help to use the calendar.)

	No	Yes
a. A close family member was very sick and had to go into the hospital	N	Y
b. You got separated or divorced from your husband or partner	N	Y
c. You moved to a new address	N	Y
d. You were homeless	N	Y
e. Your husband or partner lost his job	N	Y
f. You lost your job even though you wanted to go on working	N	Y
g. You argued with your husband or partner more than usual	N	Y
h. Your husband or partner said he didn't want you to be pregnant	N	Y
i. You had a lot of bills you couldn't pay	N	Y
j. You were in a physical fight	N	Y
k. You or your husband or partner went to jail	N	Y
l. Someone very close to you had a bad problem with drinking or drugs	N	Y
m. Someone very close to you died	N	Y

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35. a. *During the 12 months before you got pregnant, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?*

- No
- Yes

b. *During the 12 months before you got pregnant, did anyone else physically hurt you in any way?*

- No
- Yes

36. a. *During your most recent pregnancy, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?*

- No
- Yes

b. *During your most recent pregnancy, did anyone else physically hurt you in any way?*

- No
- Yes

37. How would you describe the time during your pregnancy?

Check one answer

- One of the happiest times of my life
- A happy time with few problems
- A moderately hard time
- A very hard time
- One of the worst times of my life

The next questions are about your labor and delivery. (It may help to look at the calendar when you answer these questions.)

38. When was your baby due?

Month
Day
Year

39. When did you go into the hospital to have your baby?

Month
Day
Year

I didn't have my baby in a hospital

40. When was your baby born?

Month
Day
Year

41. When were you discharged from the hospital after your baby was born? (It may help to use the calendar.)

Month
Day
Year

I didn't have my baby in a hospital

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42. After your baby was born, was he or she put in an intensive care unit?

- No
- Yes
- I don't know

43. After your baby was born, how long did he or she stay in the hospital?

- Less than 24 hours (Less than 1 day)
- 24–48 hours (1–2 days)
- 3 days
- 4 days
- 5 days
- 6 days or more
- My baby was not born in a hospital
- My baby is still in the hospital

44. How was your delivery paid for?

Check all that apply

- Medicaid
- Personal income (cash, check, or credit card)
- Health insurance or HMO
- Military (including TRICARE)
- Alaska Native Health Service or Native Regional Corporation
- Other → Please tell us:

The next questions are about the time since your new baby was born.

45. What is today's date?

Month Day Year

46. Is your baby alive now?

- No
- Yes → **Go to Question 48**

47. When did your baby die?

Month Day Year

Go to Page 10, Question 60

48. Is your baby living with you now?

- No → **Go to Page 10, Question 60**
- Yes

49. Did you ever breastfeed or pump breast milk to feed your new baby after delivery?

- No → **Go to Question 53**
- Yes

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50. Are you still breastfeeding or feeding pumped milk to your new baby?

No

Yes → **Go to Question 52**

51. How many weeks or months did you breastfeed or pump milk to feed your baby?

Weeks OR Months

Less than 1 week

52. How old was your baby the first time you fed him or her anything besides breast milk? (Include formula, baby food, juice, cow's milk, water, sugar water, or anything else you fed your baby.)

Weeks OR Months

My baby was less than one week old

I have not fed my baby anything besides breast milk

If your baby is still in the hospital, go to Page 10, Question 60.

53. About how many hours a day, on average, is your new baby in the same room with someone who is smoking?

Hours

Less than one hour a day

My baby is never in the same room with someone who is smoking

54. How do you *most often* lay your baby down to sleep now?

Check one answer

On his or her side

On his or her back

On his or her stomach

55. Was your baby seen by a doctor, nurse, or other health care provider in the first week after he or she left the hospital?

No → **Go to Question 57**

Yes

56. Was your new baby seen at home or at a health care facility?

At home

At a doctor's office, clinic, or other health care facility

57. Has your baby had a well-baby checkup?

No → **Go to Page 10, Question 60**

Yes

58. How many times has your baby been to a doctor or nurse for a well-baby checkup? (It may help to use the calendar.)

Times

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59. Where do you usually take your baby for well-baby checkups?

Check one answer

- Hospital clinic
- Health department clinic
- Private doctor's office or HMO clinic
- Military facility
- Clinic for Alaska Natives
- Other → Please tell us:

60. Are you or your husband or partner doing anything *now* to keep from getting pregnant? (Some things people do to keep from getting pregnant include having their tubes tied or their partner having a vasectomy, using birth control methods like the pill, Norplant®, shots [Depo-Provera®], condoms, diaphragm, foam, IUD, and not having sex at certain times [rhythm].)

No

Yes →

Go to Question 62

61. What are your or your husband's or partner's reasons for not doing anything to keep from getting pregnant *now*?

Check all that apply

- I am not having sex
- I want to get pregnant
- I don't want to use birth control
- My husband or partner doesn't want to use anything
- I don't think I can get pregnant (sterile)
- I can't pay for birth control
- I am pregnant now
- Other → Please tell us:

The next questions are about your family and the place where you live.

62. Which rooms are in the house, apartment, or trailer where you live?

Check all that apply

- Living room
- Separate dining room
- Kitchen
- Bathroom(s)
- Recreation room, den, or family room
- Finished basement
- Bedrooms → How many? _____

63. Counting yourself, how many people live in your house, apartment, or trailer?

_____ Adults (people aged 18 years or older)

_____ Babies, children, or teenagers (people aged 17 years or younger)

64. Do you have a telephone in your home that has been working (in service) for the past month?

No

Yes

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65. What were the sources of your household's income during the past 12 months?

Check all that apply

- Paycheck or money from a job
- Aid such as Alaska Temporary Assistance Program (ATAP), welfare, public assistance, general assistance, food stamps, or Supplemental Security Income (SSI)
- Unemployment benefits
- Child support or alimony
- Social security, workers' compensation, veteran benefits, or pensions
- Money from a business, fees, dividends, or rental income
- Money from family or friends
- Other → Please tell us:

66. At any time during your pregnancy or after delivery, did a doctor, nurse, or other health care worker talk with you about "baby blues" (postpartum depression)?

- No
- Yes

67. In the months after your delivery, would you say that you were—

Check one answer

- Not depressed at all →
- A little depressed
- Moderately depressed
- Very depressed

Go to Question 69

68. Since you delivered your new baby, have either of the following things happened?

For each thing, circle **Y** (Yes) if it has happened to you or **N** (No) if it has not.

No Yes

- a. I wanted to see a professional about my depression N Y
- b. I went to see a professional about my depression N Y

69. Have you ever heard or read about what can happen if a baby is shaken?

- No
- Yes

70. During any of the following time periods, did you smoke marijuana or hash? For each time period, circle **Y** (Yes) if you smoked then or **N** (No) if you did not smoke then.

No Yes

- a. During the 12 months before you got pregnant N Y
- b. During your most recent pregnancy N Y
- c. Since your new baby was born . . . N Y

71. During any of the following time periods, did you use cocaine or crack? For each time period, circle **Y** (Yes) if you used then or **N** (No) if you did not use then.

No Yes

- a. During the 12 months before you got pregnant N Y
- b. During your most recent pregnancy N Y
- c. Since your new baby was born . . . N Y

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If your baby is not alive or is not living with you now, go to Question 77.

72. How often does your new baby sleep in the same bed with you or anyone else?

- Always
- Almost always
- Sometimes
- Rarely
- Never → **Go to Question 74**

73. How many other people sleep in the bed with your new baby?

- One
- Two
- Three or more

74. Are you currently in school or working outside the home?

- No → **Go to Question 77**
- Yes

75. Who usually takes care of your new baby when you go to work or school?

Check one answer

- My husband or partner
- Baby's teenage (13 years or older) brother or sister
- Baby's preteen (12 years or younger) brother or sister
- Other close relative
- Friend or neighbor
- Babysitter, nanny, or other child care provider
- Staff at a day-care center
- Other → Please tell us:

76. When you leave your new baby to go to work or school, how often do you feel that she or he is well cared for?

Check one answer

- Always
- Almost always
- Sometimes
- Rarely
- Never

77. During any of the following time periods, did your husband or partner threaten you, limit your activities against your will, or make you feel unsafe in any other way?

For each time period, circle Y (Yes) if it has happened to you or N (No) if it has not.

No Yes

- a. During the 12 months before you got pregnant N Y
- b. During your most recent pregnancy N Y
- c. Since your new baby was born . . . N Y

78. During any of the following time periods, did you use smokeless tobacco (chew or snuff)? For each time period, circle Y (Yes) if you used then or N (No) if you did not use then.

No Yes

- a. During the 12 months before you got pregnant N Y
- b. During your most recent pregnancy N Y
- c. Since your new baby was born . . . N Y

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If you have not had any alcoholic drinks in the past two years, go to Question 81.

79. Since your new baby was born, how many alcoholic drinks do you have in an average week? (A drink is one glass of wine, one wine cooler, one can or bottle of beer, one shot of liquor, or one mixed drink.)

- I don't drink
- Less than 1 drink a week
- 1 to 3 drinks a week
- 4 to 6 drinks a week
- 7 to 13 drinks a week
- 14 or more drinks a week
- I don't know

80. Since your new baby was born, how many times have you had 5 alcoholic drinks or more at one sitting?

Times

- I don't drink
- I don't know

If you do not currently smoke, go to Page 14, Question 84.

81. Would you like to completely quit smoking within the next 6 months?

- No → **Go to Page 14, Question 84**
- Yes

82. Listed below are some reasons that discourage people from quitting smoking. Please circle **Y** (Yes) if it is a reason for you or **N** (No) if it is not a reason.

	No	Yes
a. Cost of medicines, products, or classes to help you quit	N	Y
b. Fear of gaining weight	N	Y
c. Loss of a way to handle stress	N	Y
d. Other people around me smoke	N	Y
e. Craving for a cigarette	N	Y
f. Lack of support from others to quit smoking	N	Y
g. Some other reason	N	Y

Please tell us:

83. If you were trying to quit smoking and cost were not an issue, would you use any of the following programs, products, or medicines to help you quit? For each thing, circle **Y** (Yes) if you would use it or **N** (No) if you would not.

	No	Yes
a. Nicotine patch, gum, nasal spray, or inhaler	N	Y
b. Zyban, or other non-nicotine prescription medicine	N	Y
c. A quit smoking class or group	N	Y
d. Books, pamphlets, videotapes, or audiotapes	N	Y
e. A telephone helpline to quit smoking	N	Y
f. Something else	N	Y

Please tell us:

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84. Please check your total income for last year. Include **all** money your household received.

Check one answer

- \$10,000 or less
- \$10,001–\$15,000
- \$15,001–\$20,000
- \$20,001–\$25,000
- \$25,001–\$30,000
- \$30,001–\$35,000
- \$35,001–\$40,000
- \$40,001–\$45,000
- \$45,001–\$50,000
- \$50,001–\$55,000
- \$55,001–\$60,000
- More than \$60,000

85. How many people, including yourself, depended on this income?

People

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