



Focus: Preschool and School-Aged Children (up to 10 years)

Some of the major issues around preschool children include age appropriate physical growth, cognitive and socioemotional development, and school readiness. The effects of poor health in childhood can last until adulthood. In 2007, 90% of Alaskan parents reported that their child's health status was good or excellent.¹

What Health Challenges Do Young Children Face?

Alaska Native children have some of the highest **lower respiratory tract infection (LRI)** rates ever reported.² Individual-level risk factors associated with LRI include poverty and low maternal education, and increased use of tobacco. Environmental risk factors include living in crowded conditions and poor indoor air quality from wood stove use. A recent study of Alaskan communities showed a possible influence of community education levels on risk of LRI in children. The proportion of poorly educated adults in the community was more predictive of inpatient and outpatient LRI risk than household crowding, income levels, or proximity to physical services. The protective factor associated with birth to a well-educated mother was substantially reduced if the community educational status was low.² Lack of piped water and sewage services in rural Alaskan communities is also a potential environmental factor associated with LRI.³

Anchorage School District
K & 1st Grade Students, 2007-08:

- 15% Overweight
- 18% Obese

Excess weight has become nearly an epidemic in the U.S., and is a major contributor to problems such as high blood pressure, high cholesterol, orthopedic disorders, and type 2 diabetes.⁴ For every 10 students of normal weight in the Anchorage School District in 1998-1999, 2 had become overweight or obese 10 years later. For every 10 students in

that same cohort who were overweight or obese, 10 years later only 2 were normal weight and 8 remained obese.⁴

Diabetes is one of the most expensive chronic medical condition. While the prevalence of diabetes in young children is very low, life-long habits in nutrition and physical activity set the stage for the level of risk in adolescents, teens and adults. Proper **nutrition** and **physical activity** are major factors affecting weight. There is strong evidence that regular physical activity helps reduce body fat and that sedentary lifestyles are associated with higher BMI.⁵ There is evidence that breastfeeding offers some protection against overweight in the child.

- School districts have implemented significant policy and environmental modifications such as banning soda and junk food, increasing health instruction including nutrition education, and increasing mandatory physical education.
- Over half of Alaskan adults (55%) support more nutrition information in restaurants and over three-quarters (79%) support a government-funded media campaign.⁵

Where Can Risk Factors Be Modified Among 3-Year Olds?⁴ In 2008, the day before their mom was interviewed:

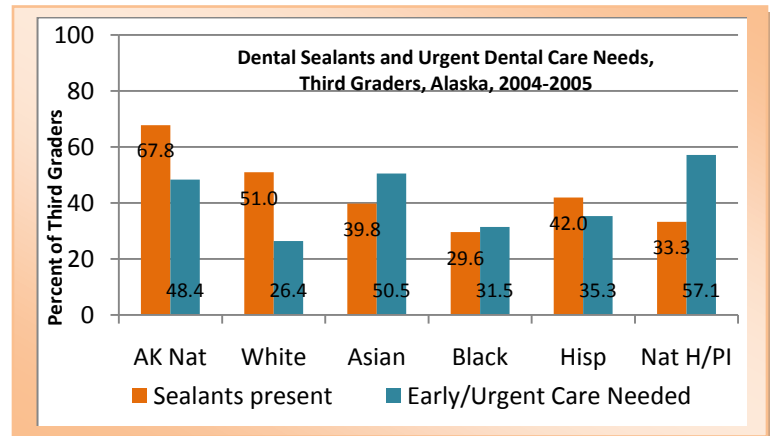
- 26% drank 1 c or more of sweetened beverage
- 11% drank 1 c or more of soda
- 35% drank whole milk, 36% drank reduced fat milk; and 13% drank low fat or fat free milk
- 42% ate french fries, tator tots or potato chips at least once
- 75% ate candy, cookies or other sweets at least once
- 59.4% were enrolled in WIC
- 45% spent 2+ hours watching TV, videos or DVDs



- 59% of 3-year olds surveyed by CUBS received services from WIC at some point since birth.⁷

Chronic Conditions

Dental caries, or tooth decay, is the most prevalent chronic disease of childhood. Among children, oral disease and oral pain have been associated with speech problems, difficulty eating, sleep problems, poor school performance and reduced self esteem. 13% of mothers of 3-year olds say they've been told their child had tooth decay or cavities.⁷ The current recommendation for the first dental visit is at eruption of the first tooth or no later than age 1. Five percent of mothers surveyed in CUBS followed this recommendation. Fifty-five percent of the surveyed moms report their child had not yet been seen by a dentist.



- Some large communities do not support water fluoridation
- Medicaid covers oral health preventive services, including dental sealants, for children 0 - 21. Access to dental sealants is available through The AK Native Tribal Health Consortium, federally funded Community Health Centers, dental clinics or itinerant providers, and private dental offices. However, Denali KidCare/Medicaid enrolled children have serious difficulties accessing dental services due to shrinking dental workforce, high no show rates, low reimbursement rates and administrative requirements.⁶ The AK DHSS has developed a strategy plan that addresses some of these issues.
- Additional resources are needed for regular surveillance, program evaluation, and outreach to high risk populations.
- Services could be improved with: case management in Medicaid program; training for non-dental EPSDT providers to do fluoride varnish, dental screening, triage and referrals; understanding of Medicaid/DKC transportation issues; raise awareness of oral health as a major health issue

Asthma is a major cause of childhood disability and a major cause of missed school days. In 2008 16% of mothers surveyed by CUBS were told that their 3-year old had asthma or wheezing treated with inhalers, puffers or nebulizers.⁷ and in 2004, 8% of adults in Alaska reported they had a child who ever had asthma. That's about 11,000 children < 18 years of age who have experienced asthma.⁸

- The Alaska Asthma Coalition prepared an Alaska Asthma Plan: A Strategic Plan for Addressing Asthma in Alaska which presents strategies for reducing asthma mortality and morbidity, controlling the cost of care, and improving the quality of life for people with asthma. There is a significant parent and family role in helping to educate, coach, and monitor the asthmatic on the importance of good control as a lifelong skill.
- Alaska does not have funding for an asthma control program.



Issues in School-based Care

Many rural schools do not have school nurses or other certified individuals who are licensed to oversee health care of children who need services during the school day, for example, children who need to take regularly-scheduled medications for chronic conditions such as asthma. Of the 54 school districts in the state, only 15 districts hire school nurses. The other districts rely on resources such as public health itinerant nurses who have limited time and resources, community health aides, contract tribal nurses, and lay people with limited medical/nursing knowledge and expertise. Children with special health care needs may receive limited or no planning/coordination of their care in districts without school nurses.

- This is a significant and highly concerning status due to the high number of children with special needs, both disabilities and as chronic health conditions.
- A **school-based health care model** is being piloted at Clark Middle School in Anchorage. There is also a teen health center at Thunder Mountain High School, Juneau .

Neglect and Abuse Is a Particular Threat to All Children

The **Alaska Surveillance of Child Abuse and Neglect** (SCAN) was established in 2008. The purpose of this program is to provide reliable data of child maltreatment through an integrated and centralized data depository. Preliminary analysis of 2000 - 2006 data show that:

- The majority (69%) of child maltreatment-related fatalities occur in children less than 1 year old.
- Annually the average number of child maltreatment-related fatalities among infants is 10.
- Alaska Native children ages 0 – 9 have nearly 4 times the risk of maltreatment fatality compared with non-Native children.
- The majority (92%) of fatal maltreatment cases occurring in children 4 years old through 9 years old are neglect related.
- The majority (87%) of fatal abusive head trauma/Shaken Baby Syndrome fatalities occurred among non-Native children.

A more thorough and descriptive picture of neglect and abuse will be available as more data is collected. This will be helpful for implementing effective intervention programs.

- **Strengthening Families** program is a nationally recognized parenting and family strengthening program for high-risk families aimed at reducing problem behaviors, delinquency, and alcohol and drug abuse in children, and improving social competencies and school performance. This framework has been adopted by Alaska for prevention of child abuse and neglect and decreasing the drop-out rate. The number of early care and learning programs implementing the Strengthening Families approach is expanding but additional funding for program expansion and technical assistance is needed.⁹

Unintentional Injury Mortality

Alaska's child mortality rate among children is higher than the U.S. rate. The leading cause of death is unintentional injury, primarily motor vehicle crashes, then drowning and other accidents. Alaskans participate in activities that could put children at risk for injury. In 2008, 24% of 3-year olds rode on an ATV or snow machine in the week before their mother was surveyed.⁷

- Injury prevention programs are implemented by the Division of Public Health, Section of Injury Prevention and Emergency Medical Services (IPEMS). Two examples are the Kids Don't Float program and the injury



prevention home visitation program. IPEM partners include Safe Kids Alaska, Safe Routes to School, and Safety Bear.

- The Child Death Review program was created in 2005 within the Section of Women's, Children's, and Family Health based on the infant mortality review process.
- A new medical examiner was hired in June 2009 and two assistant ME positions were recently filled. More capacity is needed in locations outside of Anchorage.
- Legislation passed in 2009 improved requirements for child passenger restraints but no corresponding legislation exists for alternate motorized vehicle such as ATVs and snow machines.

Immunizations

In 2007, 78.6% of children 19 to 35 months received a full schedule of age appropriate immunizations.¹⁰ 74% of mothers surveyed by CUBS believe it is important for their child to get all shots according to schedule, and another 21% believe some shots are important but delaying or refusing others is ok. 4.5% believe their child should never get shots, and 1% believe it is ok to wait until the child goes to school to get shots.⁷ Between 20 - 29% had received advice not to get childhood shots, from either friends or family, the media, or the internet. Planning for H1N1 response is primarily through the disaster planning process.

- The School Nurse Consultant is working with school districts to develop vaccination procedures.

Insurance Coverage

About 87% of children are covered by some kind of health care plan and about 18 - 19% are either uninsured or had periods of no coverage.^{1,7}

- In FFY 2008, the Denali KidCare eligibility level was 175% of federal poverty level (\$4,000/mo for a family of 4 with no other coverage)¹¹. Legislation is pending in the 2010 legislative session for the FPL will be increased to 200%.
- Several agencies are working together to develop effective standards and to tie documented EPSDT visits to Medicaid reimbursements.
- Administrative organization of the Medicaid program creates barriers to be fully effective in needs assessment, enrollment, initiatives, quality assurance, coordination with other programs, and outreach.

Child Care

Of the mothers surveyed for CUBS, 31% used childcare for 10 or more hours a week on a regular basis.⁷ Of those using child care, 37% used a child care center or preschool and 36% used care in a caregiver's home. 37% said their provider was not licensed.

- 7% of parents who used daycare said they could not find childcare for a week or longer in the month before being surveyed. Reasons included: couldn't find the quality desired (41%); couldn't afford any care (33%); scheduling conflicts (28%); location conflicts (23%); and could find care that could meet the child's special needs (including behavioral concerns - 8%).⁷

Challenging Experiences Affect Health Through Adulthood

There is a growing body of research that links **adverse childhood experiences** to higher risk of a wide variety of health problems

The Adverse Childhood Experiences Study found that as the amount of stress a person experienced in childhood increased, the risk for health problems increased in a strong and graded fashion.¹²



including alcoholism, depression, illicit drug use, ischemic heart disease, STD's, smoking, and suicide attempts.¹² Child **poverty** has consequences lasting throughout life. Children under 5 years of age in Alaska and nationwide are those most likely to be poor. It is estimated that in 2007, 14% of Alaska children up to 18 years of age (27,620) lived in poverty.¹³ In 2008, 5.2% of children 0-19 years of age (11,154) were enrolled in TANF and 22% (45,888) were enrolled in the food stamp program.¹⁴

- Declines in Denali KidCare enrollment were seen at the end of FFY 2008, despite addition of staff to the Denali KidCare Eligibility Office. Staff turnover, citizenship documentation requirements, expiration of an outreach grant, and lengthy application processing times were challenges.
- A WCFH School Nurse Consultant will assist in education and outreach for the EPSDT Program (well child checkups).
- Alaska has adopted the Strengthening Families model to build protective factors around children. More resources are needed to expand and evaluate the program. Almost 1/3 of children under 6 years are engaged in SF programs.¹⁵

What Stressors Affected Moms of Alaska Toddlers?⁷

- had bills they couldn't pay - 30%;
- self lost a job - 7%;
- partner lost a job - 14%;
- changed marital status - 10%;
- partner or self went to jail - 9%;
- mom diagnosed with depression - 8%;
- was homeless - 3%;
- experienced physical abuse or a threatening partner - 5%.

The **Early Childhood Comprehensive Systems (ECCS)** is a comprehensive systems approach for delivering services to families with young children. The systems approach may integrate elements composed of:

- physical health and medical care
- mental health
- social services
- education
- public safety
- family involvement
- substance abuse
- violence prevention
- job training and skills development.

What does a systems approach mean?

- **Create partnerships** among federal, state and community service providers to leverage resources and improve coordination and effectiveness
- Develop cross service systems - **break down silo effects**, promote integration and multifaceted approaches
- Establish links within the lifespan health model so that the early childhood stage is viewed as part of a **lifespan continuum** rather than a separate point in time

The Dept of Health & Social Services, Office of Children's Services , developed an ECCS Plan that focuses on four areas: **medical homes; social, emotional and mental health; early care and learning; and family support.**¹⁶

Related Title V State Priorities, 2005-2010¹⁷

- Reduce the rate of child abuse and neglect.
- Increase public awareness and access to health care services for children and CSHCN.
- Increase access to dental health services for children.
- Reduce the prevalence of childhood obesity and overweight.
- Increase awareness around mental health issues in the MCH population.

Related Title V State Performance Measures, 2005-2010¹⁷

#3. Percentage of children ages 10-13 who are at-risk for being overweight.
2008 - 40.1% 2009 - 39.7%



#4. Rate of substantiated reports of harm to children per one thousand children age 0 to 18.
 FFY 2007 - 15 per 1,000 FFY 2008 - 18 per 1,000

Related Title V National Performance Measures, 2005-2010¹⁷

#9. % of third grade children who have received protective sealants on at least one permanent molar tooth.
 FY 2005 - 52.4% FY 2008 - 55.3%

10. Rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children.

Year	Rate	Number
2003-2005	6.5	31
2004-2006	5.0	24
2005-2007	4.1	20

#13. % of children (0-18 years) without health insurance.
 2005 - 9.2% 2006 - 9.4% 2007 - 11.2%

#14. %-age of children, ages 2 to 5 years, receiving WIC services with a BMI at or above the 95th percentile.
 2005 - 22.1% 2006 - 21.7% 2007 - 21.6% 2008 - 21.5%

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⁹ correspondence, S. Pittz. April 2009.

¹⁰ CDC National Immunization Program, Immunization Coverage in the US, Immunization Survey, NIS Data: Tables, Articles & Figures. (See the 4:3:1:3:3 series).

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¹⁴ AK DHSS, Division of Public Assistance.

¹⁵ correspondence, S Pittz, March 2009.

¹⁶ Office of Children's Services. [website] Early Childhood Comprehensive Systems. <http://hss.state.ak.us/ocs/ECCS/default.htm>

¹⁷ State of Alaska, Section of Women's Children's and Family Health. FY 2010 Title V Block Grant application.