



**Alaska Maternal and
Child Health Data Book
2011: Alaska Native Edition**

Alaska Division of Public Health



Alaska Native Epidemiology Center

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How to Learn More

Visit <http://www.epi.alaska.gov/mchepi>

to find out more about Alaska PRAMS and Alaska CUBS and the Maternal and Child Health Epidemiology Unit in the Section of Women's, Children's, and Family Health, Alaska Division of Public Health.

Visit <http://www.anthc.org/chs/epicenter/>

to find out more about the Alaska Native Epidemiology Center and the health of Alaska Native people.

Alaska Maternal and Child Health Data Book 2011: Alaska Native Edition

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others who were photographed for this book.

*Childhood Understanding Behaviors Survey

†Pregnancy Risk Assessment Monitoring System

Introduction

We are excited to bring you the *Alaska Maternal and Child Health Data Book 2011: Alaska Native Edition*. This version of the Maternal and Child Health (MCH) Data Book is a collaborative effort of the Alaska Division of Public Health and the Alaska Native Tribal Health Consortium's Alaska Native Epidemiology Center. Two MCH state-run surveys are the sources of data. One is familiar – the Alaska Pregnancy Risk Assessment Monitoring System (PRAMS). The other is a newer data source that we are excited to highlight for the first time in this format. It is the three-year follow-up to PRAMS called the Childhood Understanding Behaviors Survey (CUBS).

This edition of the Alaska MCH Data Book will provide policy makers, public health professionals and health care providers with critical data on leading issues affecting women before, during and after pregnancy, and preschool age children. This book is unique in that it reports all analyses by Alaska Native status and, in some cases, by tribal health region. The goal of this book is to provide data that can be used in both tribal and non-tribal programs to design, implement, monitor, and evaluate programs. By focusing on Alaska Native status these data will be particularly helpful to health care staff and administrators in areas of rural Alaska that serve predominantly Alaska Native people. Please share with us how you have used the data published here. You may contact the PRAMS/CUBS staff by e-mail at mch-epi@alaska.gov or by phone at 1-888-269-3470.

We believe that programs and policy should be founded and guided by reliable epidemiological data. We trust that the *Alaska Maternal and Child Health Data Book 2011: Alaska Native Edition* will be helpful to all who work toward improving the health and well-being of Alaskan families.

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How To Use This Book

We have taken great strides to format this data book with the end-user in mind.

Most of the indicators have at least two charts. These may include trend lines, bar charts, or pie charts. Additionally, the data findings are described in a page of bullet points opposite the charts. In some cases, additional data which are not shown graphically are described in the text.

Because Alaska has a small population dispersed across a large area, it is at times not practical to use a statewide estimate to describe a health-related problem in a particular area of the state. Therefore, we are pleased to provide bar charts of regional estimates with 95% confidence intervals for many indicators to help mitigate this issue. The regions roughly correspond to the areas served by individual tribal health organizations. Twelve regions have been collapsed into eight for this data book. The Southcentral region includes communities served by multiple health organizations. This region includes the Municipality of Anchorage/Matanuska-Susitna Valley, Kenai Peninsula, Aleutians and Pribilofs, Kodiak Area, and Copper River/Prince William Sound regions.

In order to properly interpret data, it is important to understand if findings are statistically significant. Differences or trends mentioned in the text are always statistically significant, even if this is not explicitly stated. If an indicator either significantly increases or decreases over time, this is noted in the text describing the trend line. There is an asterisk on the category title on bar charts to indicate a statistically significant difference between non-Native and Alaska Native women. Regional bar charts have confidence intervals displayed around the estimates.

For the purposes of this book, the term “Alaska Native women” is used to describe mothers who identified as either Alaska Native or American Indian on their child’s birth certificate.

The detailed data tables for the charts in this book can be found on both the Alaska Division of Public Health, MCH Epidemiology Unit website (<http://www.epi.alaska.gov/mchepi/>) and the Alaska Native Epidemiology Center website (<http://www.anthc.org/chs/epicenter/pubs.cfm>).

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Overview of PRAMS & CUBS

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 in 1987 as part of an initiative to reduce infant mortality and low birth weight. Currently PRAMS operates in 38 project sites and surveillance covers approximately 75% of all U.S. births. The Alaska PRAMS Project was initiated by the Alaska Division of Public Health in 1990.

The Childhood Understanding Behaviors Survey (CUBS) is a three-year follow-up survey to Alaska PRAMS. CUBS collects information about the health, behaviors, and early childhood experiences of children in Alaska before they enter school. By re-interviewing mothers who completed a PRAMS survey, CUBS is able to evaluate factors present at birth or early life that increase risk for later adverse childhood outcomes. CUBS was developed by the Alaska Division of Public Health in 2006, and began ongoing surveillance in 2008. Alaska is one of only four states that have an ongoing follow-up survey to PRAMS.

Sample Design

All PRAMS programs utilize a sampling technique called “stratified random sampling”. Alaska stratifies by mother’s race and birth weight of the infant (as reported on the birth certificate). Alaska PRAMS uses the following four strata for sampling purposes: Alaska Native women with a low birth weight (LBW) infant (i.e., <2500 grams), Alaska Native women with a normal birth weight (NBW) infant (i.e., ≥2500 grams), non-Native women with a LBW infant, and non-Native women with a NBW infant. A random sample is drawn from each of these groups, and selected mothers are contacted. A weighting process recombines the results to reflect the total population of Alaskan women who delivered a live birth 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 with

women who do not respond by mail. In 2008, CUBS only administered the survey by mail, although a phone interview component has since been added. CUBS mails up to two surveys to sampled women.

Inclusion Criteria

Alaska-resident women of any age who have delivered a live birth (in-state) make up the PRAMS population. 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. Women whose infant has died are included and are sent letters appropriate for a grieving mother. When the birth is multiple, one infant is randomly selected so the mother may focus her responses to infant questions on one child. Pending adoptions are included as long as the biological mother is still identified on the birth record. For 2000-2008, the maternal age of women responding to PRAMS ranged from 13 to 49 years old.

The CUBS sample is all women who responded to PRAMS. Women are excluded from CUBS if her child was not living with her at the time she responded to PRAMS, or if she is no longer living in Alaska at the time of CUBS follow-up.

Sample Size

There are approximately 11,000 live births per year in Alaska. Approximately one of every six mothers of newborns is selected for PRAMS.

Limitations of PRAMS and CUBS Data

Since PRAMS and CUBS data, though population-based, are derived from survey data, there are limitations to their interpretation. These include self-reported information (where under-reporting as well as over-reporting may exist); recall bias; and potentially unfavorable response rates. In regards to the latter, PRAMS weighted response rates were favorable during the 2000-2008 period (range: a low of 71% in 2008 to a high of 86% in 2002). The CUBS 2008 weighted response rate was 54%. An additional limitation for PRAMS is that the population sampled includes only women who have recently had a live birth, so pregnancies resulting in abortions or stillbirths are not represented.

Population Characteristics



Population Composition

In 2008, the total population estimate for Alaska was 681,977 (1), making up 0.2% of the total United States population. The Maternal and Child Health (MCH) population consists of children less than 15 years of age and women of childbearing age (15-44 years).

- Approximately 18% of the Alaska population in 2008 consisted of Alaska Native people.
- The MCH population within the total Alaska Native population was proportionately larger than within the non-Native population (51% vs. 43%, respectively).
- The Alaska Native population had a greater proportion of children ages 1-14 years than the non-Native population (28% vs. 21%, respectively).
- Among both the Alaska Native and non-Native populations, about 1 in 5 people were women of childbearing age (15-44 years old).

Data Source: Alaska Department of Labor.



Population Characteristics

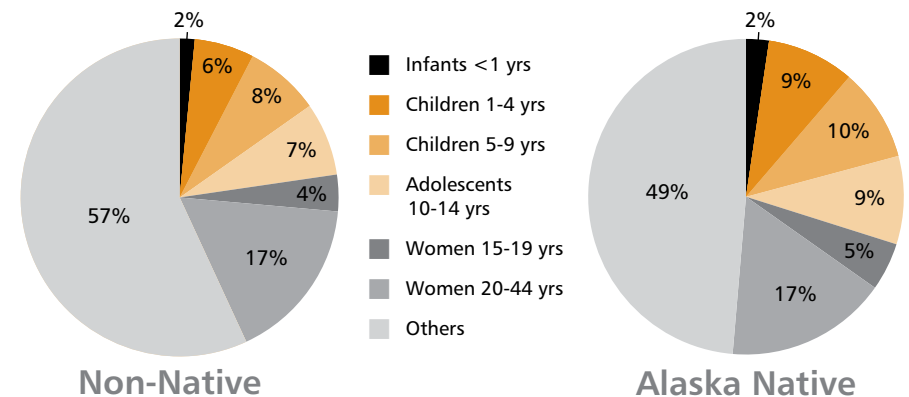
Population Composition by Maternal and Child Health Groupings and Alaska Native Status, Alaska, 2008

Data Source: Alaska Department of Labor. Prepared by Alaska Native Epidemiology Center.

| Population Group | Age in years | Population Estimate | |
|---------------------------------|--------------|---------------------|----------------|
| | | Non-Native | Alaska Native |
| Infants | <1 | 8,560 | 2,889 |
| Children | 1-4 | 33,893 | 11,037 |
| Children | 5-9 | 42,647 | 11,714 |
| Adolescents | 10-14 | 41,691 | 11,144 |
| Women of Childbearing Age | 15-44 | 114,129 | 26,446 |
| <i>Teen Women</i> | 15-19 | 20,801 | 6,048 |
| <i>Adult Women</i> | 20-44 | 93,328 | 20,398 |
| Total MCH Population | | 240,920 | 63,230 |
| Others | | 317,923 | 59,904 |
| Total Alaskan Population | | 558,843 | 123,134 |

Maternal and Child Health Populations as a Percent of Total Population by Alaska Native Status, Alaska, 2008

Data Source: Alaska Department of Labor. Prepared by Alaska Native Epidemiology Center.



Regional Distribution

The Alaska Native tribal health regions are used in this data book to present findings by maternal region of residence (2). The regions roughly correspond to the regions served by individual tribal health organizations. The Southcentral region includes the following five areas: Municipality of Anchorage/Matanuska-Susitna Valley, Kenai Peninsula, Aleutians and Pribilofs, Kodiak Area, and Copper River/Prince William Sound.

- Among 558,843 non-Native residents of Alaska in 2008, 72% lived in the Southcentral tribal health region, 16% in the Interior region, 10% in the Southeast region, and 2% in the remaining regions combined. ^
- Among 123,134 Alaska Native residents of Alaska in 2008, 41% lived in the Southcentral tribal health region, 20% in the Yukon-Kuskokwim region, 11% in the Southeast region, and 28% in the remaining regions combined.
- Alaska Native people comprised more than two-thirds of the population in the following regions: Arctic Slope, Bristol Bay, Northwest Arctic, Norton Sound, and Yukon-Kuskokwim.

Data Source: Alaska Department of Labor.

^ In this data book, data for non-Native women are shown only for the three tribal health regions with the majority of the non-Native population (Southcentral, Interior, and Southeast).

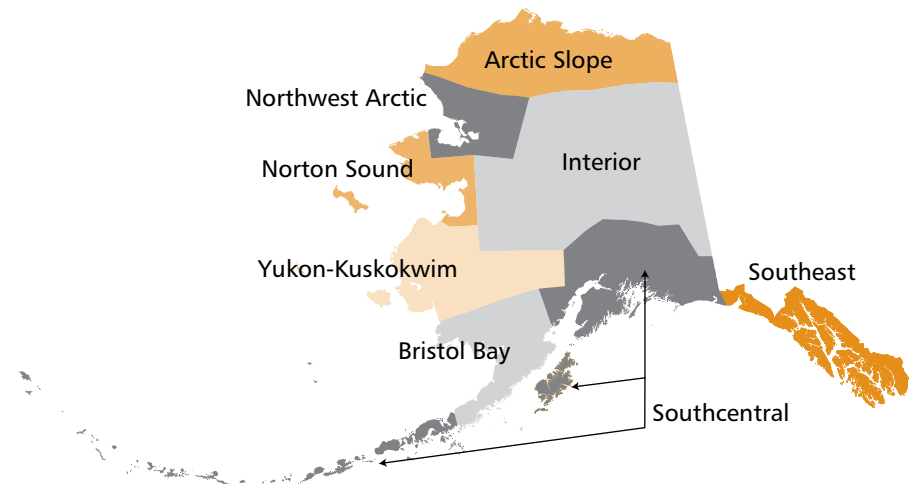
Population Characteristics

Population by Tribal Health Region and Alaska Native Status Alaska, 2008

Data Source: Alaska Department of Labor. Prepared by Alaska Native Epidemiology Center.

| Tribal Health Region | Non-Native | | Alaska Native | | Total |
|----------------------|----------------|-------------|----------------|-------------|----------------|
| | Population | % of total | Population | % of total | |
| Arctic Slope | 1,975 | <1% | 4,728 | 3.8% | 6,703 |
| Bristol Bay | 2,427 | <1% | 4,919 | 4.0% | 7,346 |
| Interior | 90,650 | 16.2% | 11,077 | 9.0% | 101,727 |
| Northwest Arctic | 1,437 | <1% | 5,964 | 4.8% | 7,401 |
| Norton Sound | 2,298 | <1% | 7,195 | 5.8% | 9,493 |
| Southcentral | 399,427 | 71.5% | 50,456 | 41.0% | 449,883 |
| Southeast | 55,187 | 9.9% | 13,976 | 11.4% | 69,163 |
| Yukon-Kuskokwim | 5,442 | 1.0% | 24,819 | 20.2% | 30,261 |
| Total | 558,843 | 100% | 123,134 | 100% | 681,977 |

State of Alaska by Modified† Tribal Health Regions



† See Tribal Health Regions in Glossary.

Women Who Delivered a Live Birth

In 2008, there were 11,308 live births in Alaska to Alaskan residents. Almost 26% of the births had Alaska Native mothers and 73.5% had non-Native mothers. Maternal race was unknown for 1%.

- Among all births with known maternal race, the most common age group of mothers delivering live births was 25-34 years (48.7%), followed by 20-24 years (29.4%). Most mothers had 12 or more years of formal education (85.5%), were married (62.3%), or lived in the Southcentral region (61.5%).
- More Alaska Native than non-Native births were to mothers ages 15-19 years (17.3% vs. 7.5%, respectively), while a higher percentage of non-Native mothers were 35 years or older (13.3% vs. 7.8%).
- Compared to non-Native mothers, Alaska Native mothers were more likely to have less than 12 years of education (28.2% vs. 9.8%) and were less likely to be married (31.8% vs. 72.8%).
- Most live births in 2008 to Alaska Native and non-Native women were to residents of the Southcentral tribal health region (33.9% and 70.3%, respectively). Around one-fifth of Alaska Native births were to residents of the Yukon-Kuskokwim region (22.4%), and around one-fifth of non-Native births were to residents of the Interior (21.5%).

Data Source: Alaska Bureau of Vital Statistics.

Population Characteristics

Characteristics of Women Who Delivered a Live Birth Alaska, 2008

Data Source: Alaska Bureau of Vital Statistics. Prepared by Alaska Native Epidemiology Center.

| | Non-Native | | Alaska Native | |
|---|---------------------|-------------|---------------------|-------------|
| | Population Size (N) | Percent | Population Size (N) | Percent |
| Maternal Age | | | | |
| 15-19 years | 627 | 7.5 | 498 | 17.3 |
| 20-24 years | 2,315 | 27.5 | 1,002 | 34.9 |
| 25-34 years | 4,340 | 51.6 | 1,149 | 40.0 |
| 35 years or older | 1,121 | 13.3 | 225 | 7.8 |
| Maternal Education | | | | |
| <12 years | 803 | 9.8 | 791 | 28.2 |
| 12 years | 3,699 | 45.0 | 1,523 | 54.3 |
| >12 years | 3,709 | 45.2 | 491 | 17.5 |
| Marital Status | | | | |
| Married | 6,120 | 72.8 | 913 | 31.8 |
| Unmarried | 2,284 | 27.2 | 1,962 | 68.2 |
| Maternal Residence (Tribal Health Regions) | | | | |
| Arctic Slope | 15 | 0.2 | 142 | 4.9 |
| Bristol Bay | 12 | 0.1 | 127 | 4.4 |
| Interior | 1,805 | 21.5 | 294 | 10.2 |
| Northwest Arctic | 7 | 0.1 | 204 | 7.1 |
| Norton Sound | 15 | 0.2 | 233 | 8.1 |
| Southcentral | 5,905 | 70.3 | 977 | 33.9 |
| Southeast | 618 | 7.4 | 256 | 8.9 |
| Yukon-Kuskokwim | 25 | 0.3 | 645 | 22.4 |
| OVERALL | 8,402 | 73.5 | 2,878 | 25.5 |

Chapter References

Chapter 1: Population Characteristics

1. Alaska Department of Labor (Vintage 2009) Race Bridged Smooth Series 2001-2009. <http://labor.alaska.gov/research/pop/estimates/data/AKARSBridge.xls>.
2. Alaska Native Health Status Report. Alaska Native Tribal Health Consortium; Alaska Native Epidemiology Center. August 2009, p 103. <http://www.anthc.org/chs/epicenter/upload/ANHSR.pdf>.



Birth Rate

Alaska's population has grown steadily since the early 1990s, with natural increase (more births than deaths) an important component (1). The crude birth rate is the number of live births per total number of people in the population. The teen birth rate is the number of live births to teenagers, ages 15-19 years, among the total population of women ages 15-19 years. The teen birth rate is often used as an indicator of the public health status of MCH populations because teens are often less prepared than older women for pregnancy and parenthood, have limited resources, and are more likely to have preterm births and low birth weight infants (2).

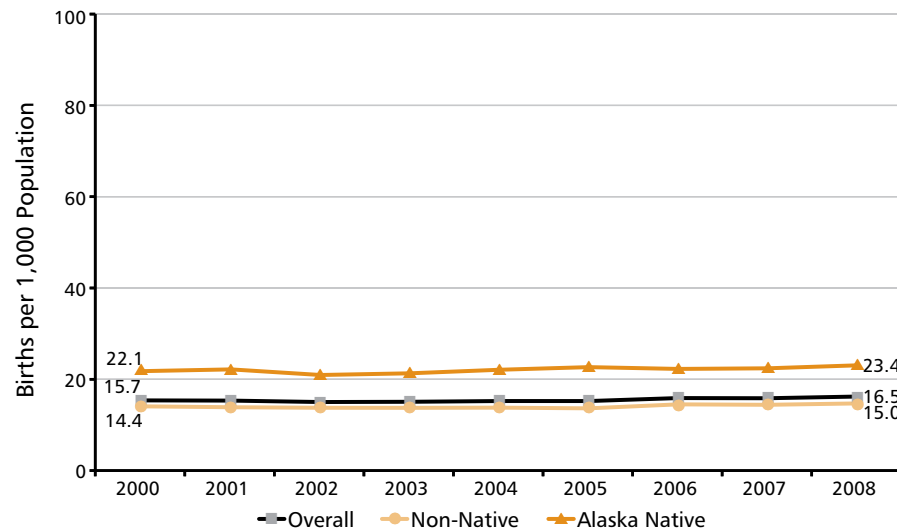
- In 2008, Alaska's crude birth rate of 16.5 live births per 1,000 persons (total population) was higher than the national rate of 14.0 per 1,000 persons (3).
- Although there was little change in the overall Alaska crude birth rate since 2000, the absolute number of births rose every year after 2002. There were 1,472 more births in 2008 compared to the number of births in 2002.
- The Alaska Native crude birth rate rose from 22.1 to 23.4 per 1,000 persons between 2000 and 2008. This rate was consistently higher than the non-Native rate, which was 14.4 per 1,000 in 2000 and 15.0 per 1,000 in 2008.
- The Alaska teen birth rate in 2008 was 41.9 births per 1,000 female teens ages 15-19, similar to the national rate of 41.5 per 1,000 (3). The overall Alaska teen birth rate decreased from 49.0 per 1,000 in 2000 to 41.9 per 1,000 in 2008.
- In 2008, the Alaska Native teen birth rate (82.3 per 1,000) was 2.7 times higher than the non-Native teen birth rate of 30.1 births per 1,000 women ages 15-19.
- In 2008, the teen birth rate was higher among women ages 18-19 than 15-17 years (79.3 vs. 18.2 per 1,000).

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor.

Reproductive Health

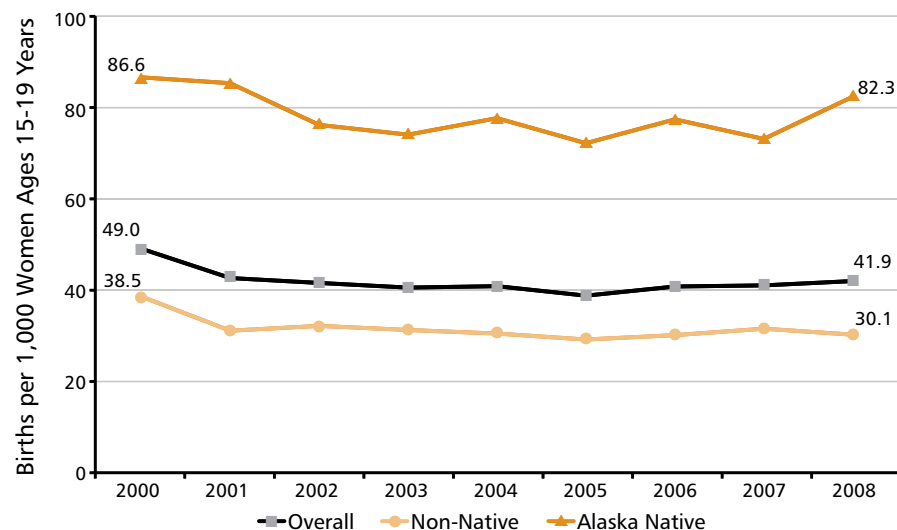
Crude Birth Rate by Alaska Native Status and Year Alaska, 2000-2008

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor.
Prepared by Alaska Native Epidemiology Center.



Teen Birth Rate by Alaska Native Status and Year Alaska, 2000-2008

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor.
Prepared by Alaska Native Epidemiology Center.



Fertility Rate

The general fertility rate (GFR) of a population is defined as the number of births that occur during a given time period per 1,000 women ages 15-44 years. Unlike the crude birth rate, the GFR takes into consideration the size of the population of women of childbearing age. In 2008, the GFR for the United States was 68.6; Alaska had the third highest fertility rate of all states in the nation in 2008 (3).

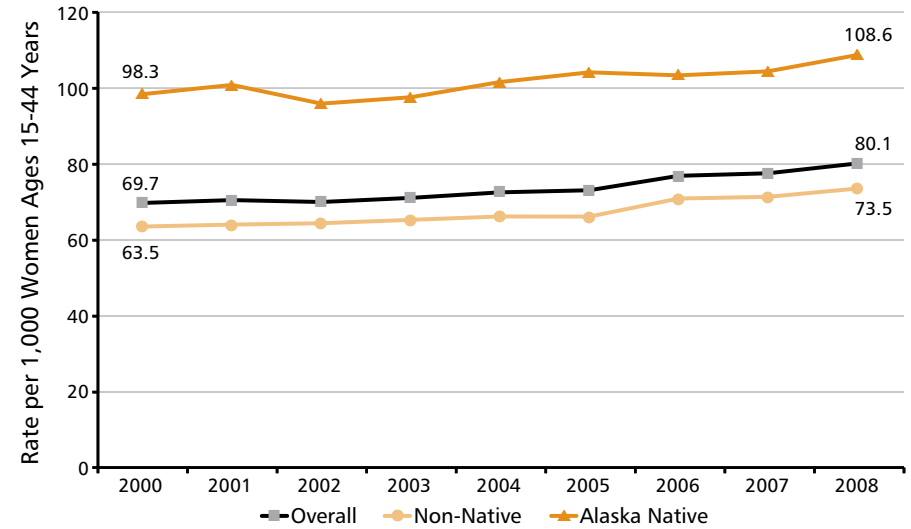
- Fertility rates increased for Alaskan women from 69.7 to 80.1 per 1,000 women of childbearing age during 2000 to 2008. A similar increase occurred for both non-Native (63.5 to 73.5 per 1,000) and Alaska Native fertility rates (98.3 to 108.6 per 1,000).
- Overall, women age 20-24 years had the highest GFR (145 per 1,000), followed by those age 25-34 years (125 per 1,000).
- Alaska Native women had higher fertility rates than non-Native women within the following age groups: 15-19 years (2.7 times), 20-24 years (1.4 times), and 25-34 years (1.2 times). The Alaska Native and non-Native fertility rates were similar among women ages 35-44 years.

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor.

Reproductive Health

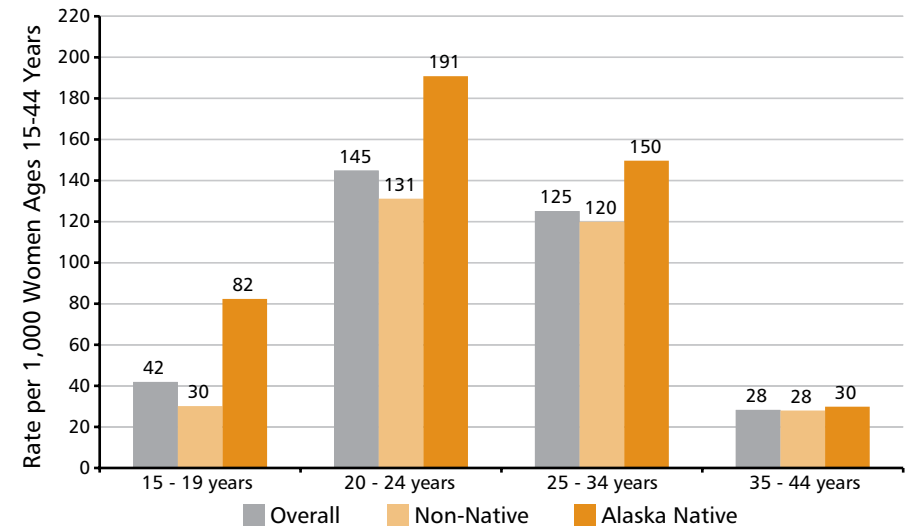
Fertility Rate by Alaska Native Status and Year Alaska, 2000-2008

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor.
Prepared by Alaska Native Epidemiology Center.



Fertility Rates by Alaska Native Status and Age Group Alaska, 2008

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor.
Prepared by Alaska Native Epidemiology Center.



Postpartum Birth Control

Using birth control soon after giving birth (the postpartum period) is one method of increasing the time interval between births. Most women are physiologically able to get pregnant as soon as four to six weeks after giving birth (4). Birth-to-pregnancy intervals of at least two years are associated with the healthiest pregnancy outcomes (4,5). Shorter intervals increase the risk of negative outcomes for the mother and the baby including infant mortality, low birth weight, preterm birth, stillbirth, miscarriage, and maternal morbidity (5).

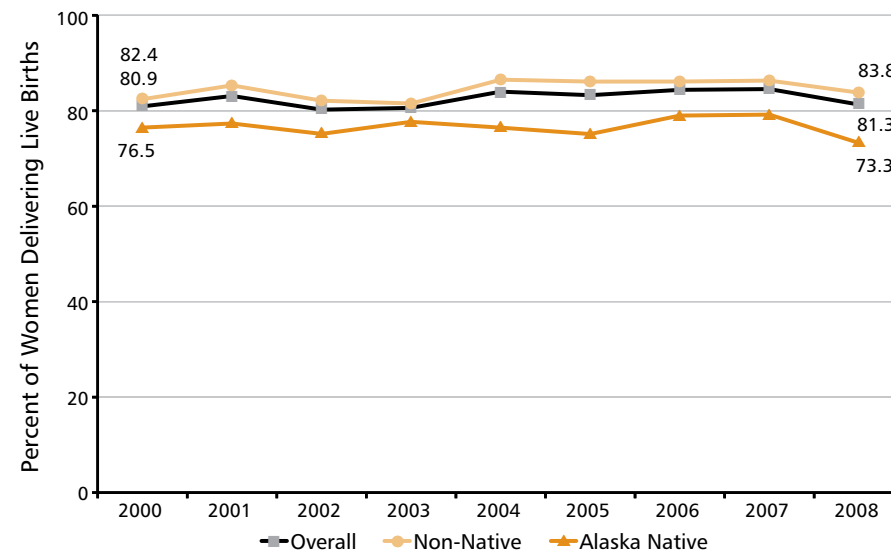
- In 2008, 81.3% of Alaskan women who recently delivered a live birth reported using birth control. There was no change in the prevalence of postpartum birth control use during 2000-2008.
- In 2008, 83.8% of non-Native women and 73.3% of Alaska Native women who recently delivered a live birth reported using birth control during the postpartum period.
- During 2004-2008, postpartum birth control use was most common among women from the Southeast tribal health region. In this region, 88.6% of non-Native women and 81.2% of Alaska Native women who had recently delivered a live birth reported using birth control.
- During 2004-2008, Alaska Native postpartum women in the Arctic Slope (69.5%), Bristol Bay (70.3%), and Yukon-Kuskokwim (70.6%) tribal health regions had the lowest prevalences of birth control use.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Reproductive Health

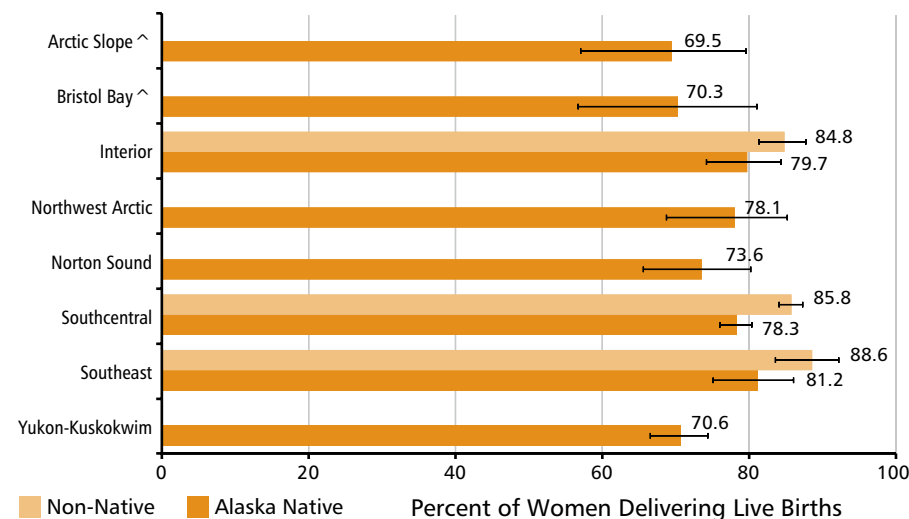
Postpartum Birth Control Use by Alaska Native Status and Year Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Postpartum Birth Control Use by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Family Planning

Sixty-one percent of Alaskan adults over the age of 18 reported using some type of birth control in 2004, and 33% percent used a reversible method, such as condoms or the pill (6). A sexually-active, fertile woman may become pregnant if she does not use birth control, if she uses birth control inconsistently or incorrectly, or if the birth control method fails. Among 29 PRAMS states in 2008, 22.2% of women delivering a live birth indicated that they were using birth control at the time they got pregnant (7).

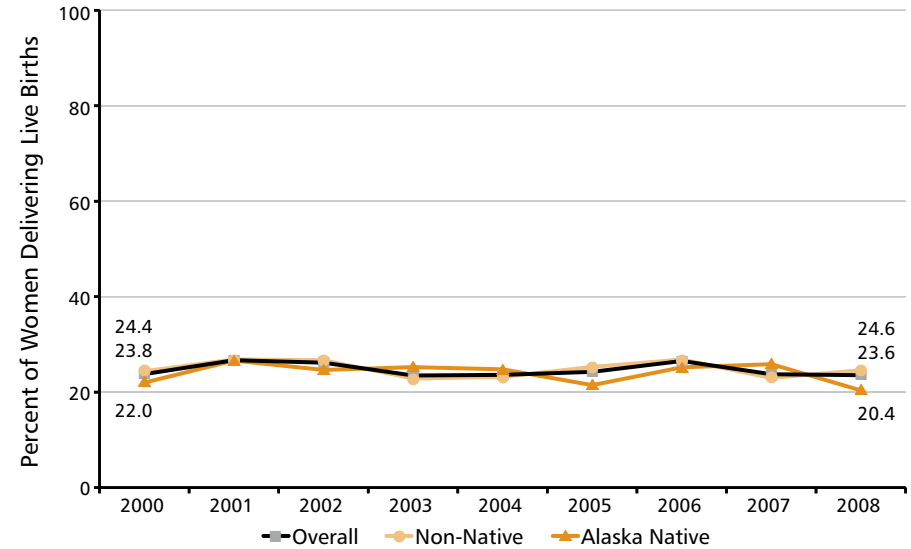
- Among all Alaskan women who delivered a live birth in 2008, 23.6% indicated that they were using birth control at the time they got pregnant. There was no change in the prevalence of women who delivered a live-born infant despite the use of birth control during the period 2000 through 2008.
- There was no difference in the percentage of Alaska Native and non-Native women who delivered a live-born infant despite the use of birth control during 2000-2008.
- During 2004-2008, Alaska Native residents of the Northwest Arctic (17.1%) and Norton Sound (17.8%) tribal health regions had the lowest prevalence of a live birth despite the use of birth control. Alaska Native residents of the Arctic Slope region (28.3%) and non-Native residents of the Southeast region had the highest prevalence of a live birth despite the use of birth control (26.4%).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Reproductive Health

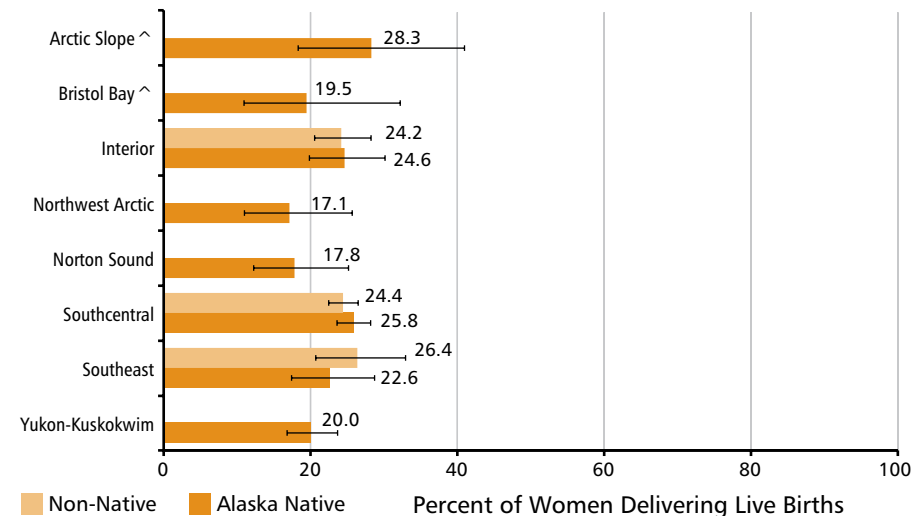
Live Births Despite Use of Birth Control by Alaska Native Status and Year, Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Live Births Despite Use of Birth Control by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Unintended Pregnancy

A pregnancy is considered unintended if the mother did not want to be pregnant at that time or never wanted to be pregnant. A recent study that combined data from several sources indicated that 49% of all pregnancies in the United States in 2006 were unintended (8). The same study found that women who were ages 18 to 24 years, had low income, or were unmarried and living with a partner had rates two to three times the overall national rate. For the information presented here, unintended pregnancies are limited to those that resulted in a live-born infant.

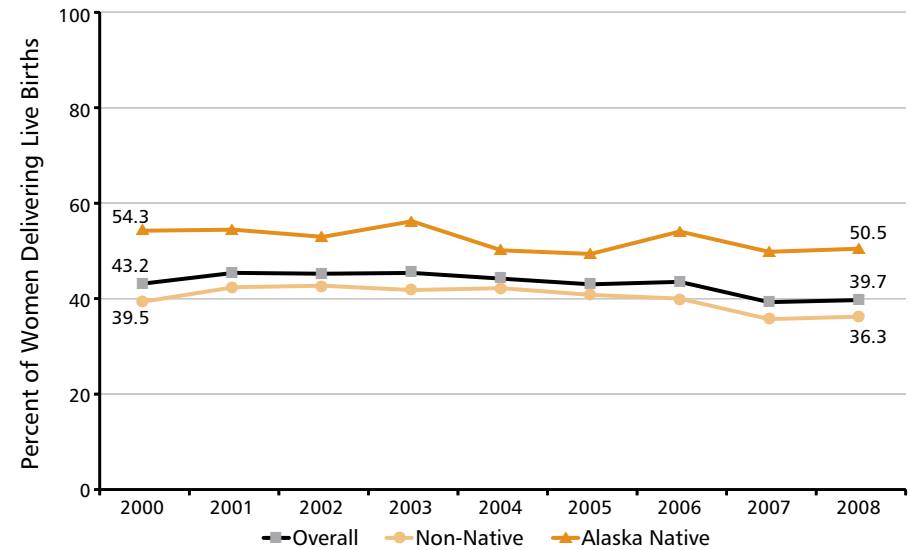
- The overall prevalence of unintended pregnancy among Alaskan women delivering a live birth decreased from 43.2% in 2000 to 39.7% in 2008.
- Among Alaska Native women delivering a live birth, the prevalence of unintended pregnancy declined from 54.3% in 2000 to 50.5% in 2008. Among non-Native women, the prevalence declined from 39.5% to 36.3%.
- During 2004-2008, the prevalence of unintended pregnancy resulting in a live birth among Alaska Native women exceeded the prevalence among non-Native women for 20-29 year olds and 30-39 year olds.
- Women less than 18 years of age had the highest prevalence of unintended pregnancies resulting in a live birth among both Alaska Native and non-Native women (77% and 84%, respectively).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Reproductive Health

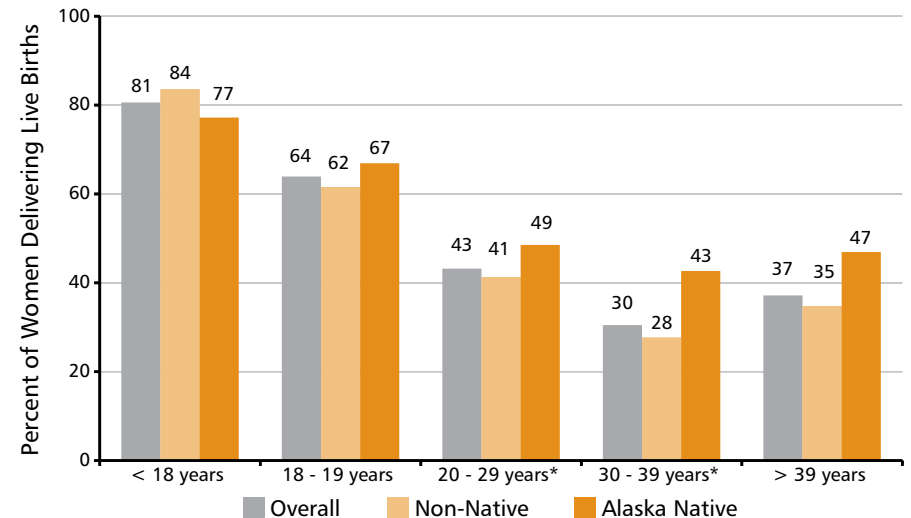
Unintended Pregnancy by Alaska Native Status and Year Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Unintended Pregnancy by Alaska Native Status and Age Group Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Mistimed & Unwanted Pregnancies

Unintended pregnancies can have negative health consequences for the mother and the baby. Nationally, 29% of all pregnancies in 2006 were mistimed (wanted later) and 19% were unwanted (8). Unintended pregnancies are associated with delayed prenatal care, adverse birth outcomes such as preterm delivery, birth defects and low birth weight, and a lower likelihood of breastfeeding (9,10). Children from unintended pregnancies have poorer mental and physical health during childhood, and are more likely to experience lower educational attainment and behavioral issues as teenagers (9,11). In addition, women with unwanted pregnancies have greater depression and perceived stress as well as lower self-confidence and less social support than women with mistimed or wanted pregnancies (12).

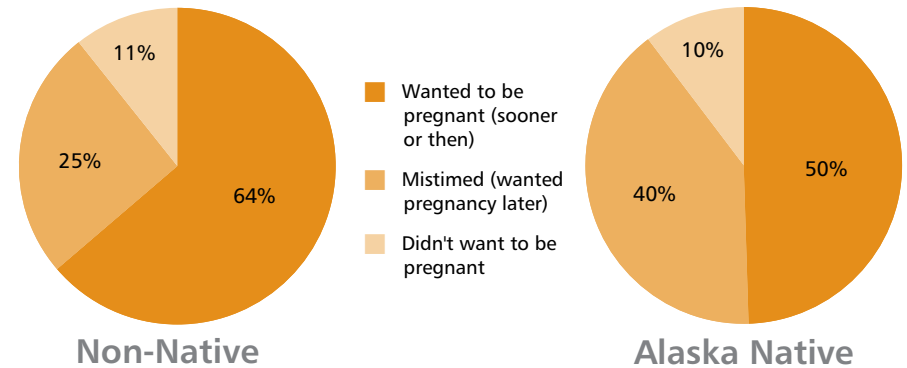
- Among both Alaska Native and non-Native women delivering a live birth in 2008, approximately 10% reported that they did not want to be pregnant at all.
- In 2008, the prevalence of mistimed pregnancies was higher among Alaska Native compared to non-Native mothers (40% vs. 25%, respectively).
- Among Alaska Native women delivering a live birth during 2004-2008, residents of the Norton Sound and Yukon-Kuskokwim tribal health regions had the highest rates of unintended pregnancy (60.4% and 56.3%, respectively). The lowest rates were in the Northwest Arctic (46.2%) and Interior (46.8%) regions.
- During 2004-2008, non-Native women in the Southeast Alaska tribal health region had the lowest prevalence of unintended pregnancy resulting in live births (34.8%).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Reproductive Health

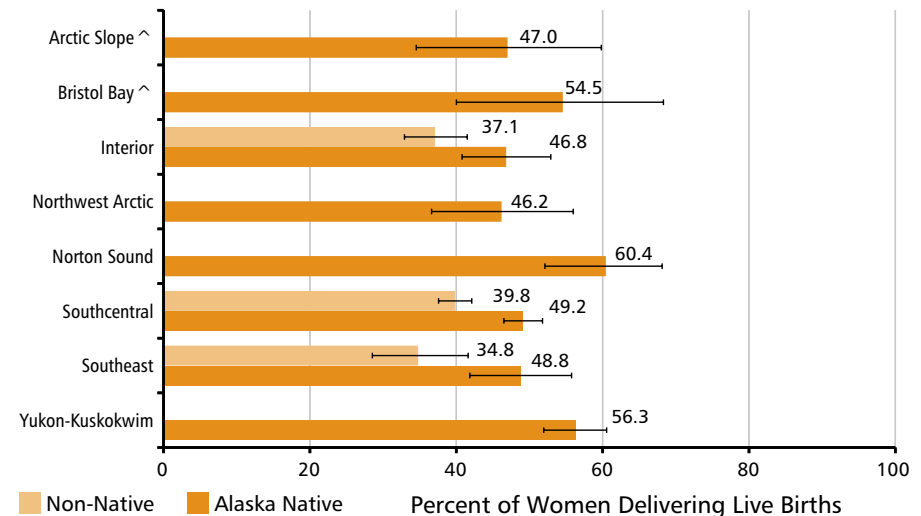
Feelings About Being Pregnant Among Women Delivering Live Births by Alaska Native Status, Alaska, 2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Unintended Pregnancy by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

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Chapter 2: Reproductive Health

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Prenatal Health



Timing of Prenatal Care

Inadequate prenatal care, including late initiation of care, infrequent prenatal visits, or no care at all, is associated with poor infant and maternal outcomes. Mothers having late or no prenatal care are more likely to have low birth weight or preterm infants and are at increased risk for pregnancy-related mortality and complications of childbirth.

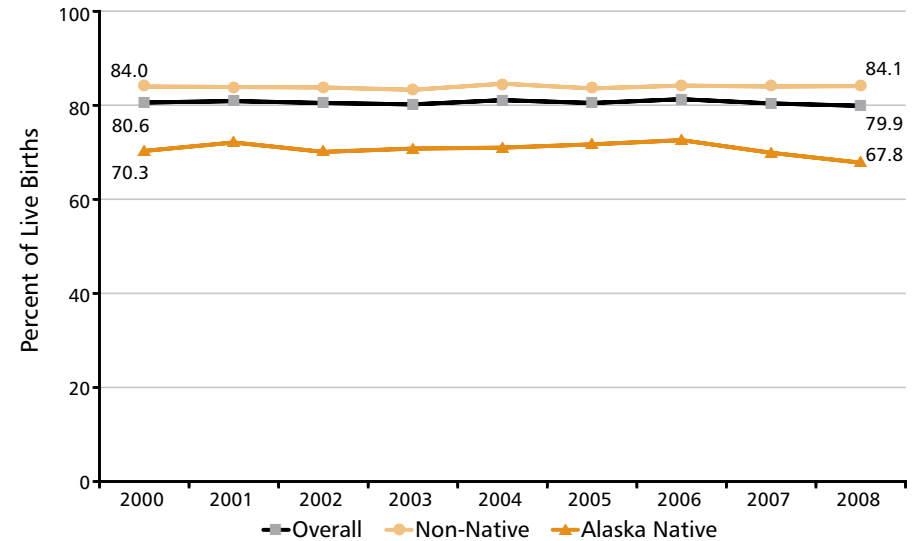
- During 2000-2008, 80% of Alaskan women delivering a live-born infant had their first prenatal care appointment during their first trimester of pregnancy. This proportion remained constant throughout the nine-year timeframe.
- Non-Native women were more likely than Alaska Native women to receive prenatal care in the first trimester during the entire eight year period 2000-2008.
- During the two-year period, 2007-2008, 18.8% of all Alaskan women delivering live births reported that they did not get prenatal care as early in their pregnancy as they wanted.
- Among all women who wanted prenatal care, common problems getting prenatal care were not having enough money or insurance to pay for prenatal care (12.5%), not being able to get an appointment when they wanted one (12.3%), and not having their Medicaid card (11.2%).
- Non-Native women were more than twice as likely as Alaska Native women to report that they did not have enough money or insurance to pay for prenatal care visits. Alaska Native women were more likely than non-Native women to report that they had too many other things going on, no one to take care of their children, no way to get to the clinic or doctor's office, and they did not want anyone to know that they were pregnant.

Data Sources: Alaska Bureau of Vital Statistics; Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Prenatal Health

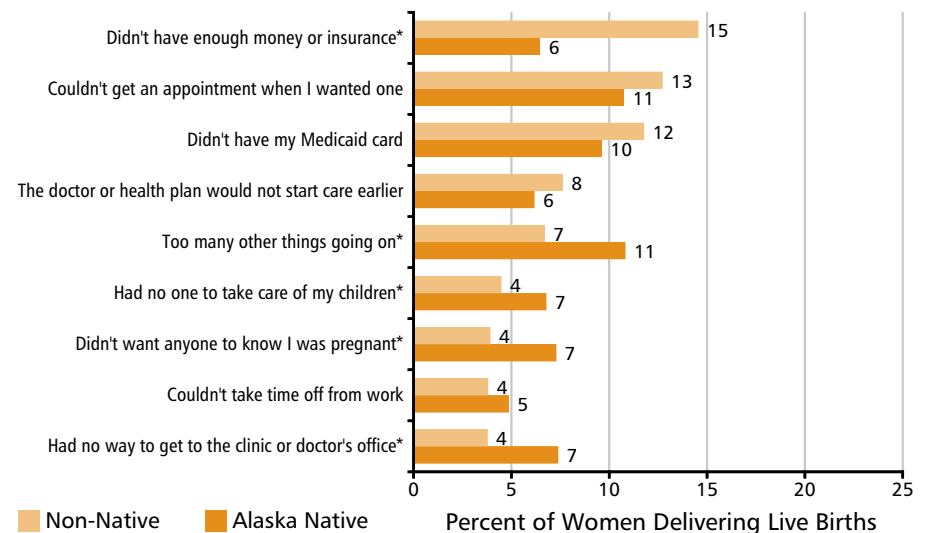
Prenatal Care (First Trimester) by Alaska Native Status and Year Alaska, 2000-2008

Data Source: Alaska Bureau of Vital Statistics. Prepared by Alaska Native Epidemiology Center.



Problems Getting Prenatal Care Among Those Who Wanted Prenatal Care by Alaska Native Status, Alaska, 2007-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



* Statistically significant difference between Alaska Native and Non-Native (p < 0.05).

Content of Prenatal Care

Prenatal care visits give providers the opportunity to offer education and counseling about behaviors that affect maternal and infant health. In addition, comprehensive prenatal care includes screening for certain risk factors and conditions such as HIV† infection.

- During the two-year period 2007-2008, Alaskan women reported that their prenatal care provider most commonly discussed breastfeeding (89%), tests to screen for birth defects (87%), and birth control after pregnancy (87%). Topics least discussed were using a seatbelt during pregnancy (55%), physical abuse to women by their partners (63%), and illegal drug use during pregnancy (69%).
- The most commonly discussed topics reported by Alaska Native women were breastfeeding (89%) and birth control after pregnancy (89%). Among non-Native women, the most common topics reported were doing tests to screen for birth defects (91%) and breastfeeding (89%).
- Alaska Native women were more likely than non-Native women to report having discussions with a prenatal care provider on physical abuse by their partners and use of substances during pregnancy such as illegal drugs, cigarettes, and alcohol.
- Non-Native women were more likely than Alaska Native women to report having discussions with a prenatal care provider on use of seatbelts during pregnancy, what to do if labor starts early, tests to screen for birth defects, and medicines that are safe to take during pregnancy.
- During 2004-2008, more Alaska Native women (78%) than non-Native women (68%) reported that they were tested for HIV during their pregnancy or delivery.

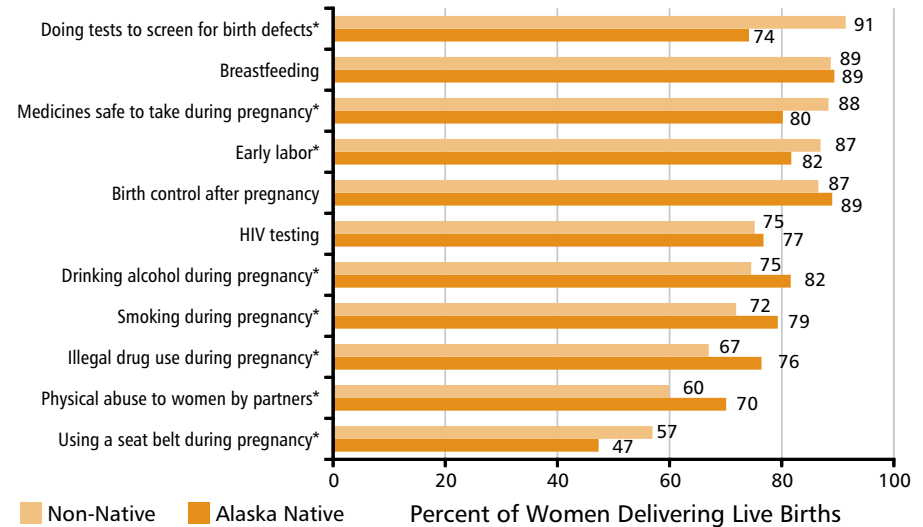
Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

†Human Immunodeficiency Virus

Prenatal Health

Prenatal Care Counseling Received by Topic and Alaska Native Status, Alaska, 2007-2008

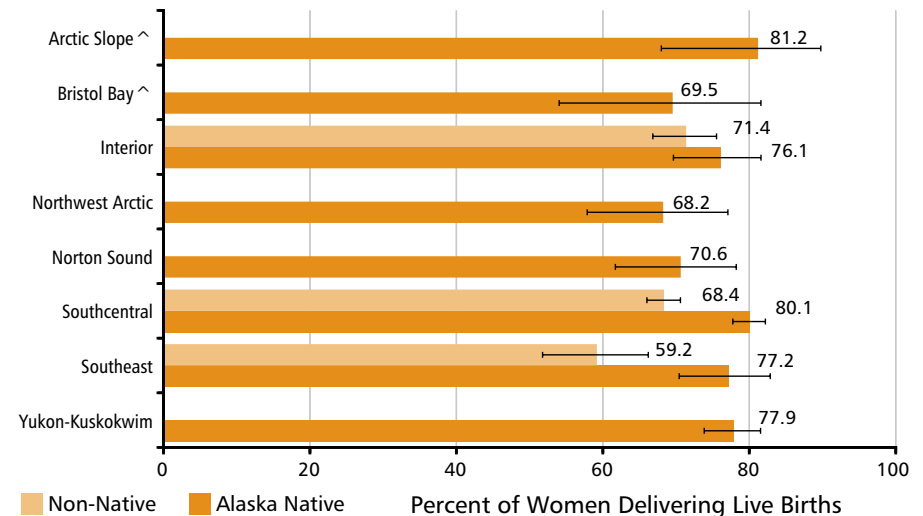
Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



* Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

HIV Test During Pregnancy or Delivery by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Folic Acid

About half of neural tube defects (or NTDs, a serious birth defect of the spinal cord or brain) appear to be due to deficiencies in folic acid intake by women during early pregnancy (1). NTD prevalence among Alaska Native births decreased between 1996 and 2004, which may have been related to folic acid fortification of commercially prepared foods which began in 1998 (2). However, more recent data indicate the prevalence of NTDs in Alaska is now increasing (3). The protective effects of folic acid can only be obtained if there are adequate stores of folic acid when the baby is conceived and in the earliest days of pregnancy. Women who might become pregnant should take a multivitamin with 400 micrograms of folic acid everyday and eat a balanced diet that includes fruits, vegetables, and whole grains.

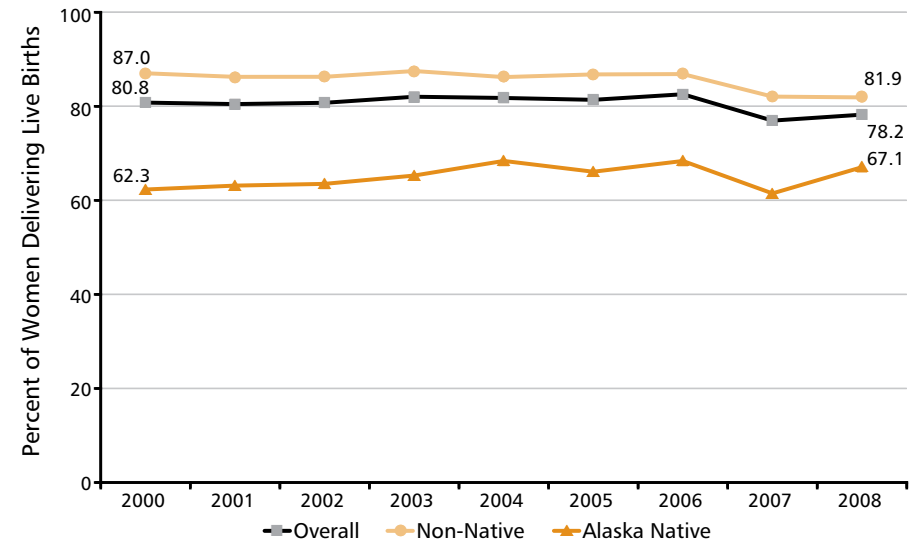
- During 2000-2006, the prevalence of knowledge about the benefits of folic acid among all Alaskan women delivering live births held steady around 80%, then decreased slightly during 2007-2008. This decrease occurred only among non-Native women.
- In 2008, 82% of non-Native women and 67% of Alaska Native women had heard or read that taking supplemental folic acid can help prevent some birth defects.
- Alaska Native and non-Native women differed in their reported multivitamin or prenatal vitamin use. During the month before pregnancy, a higher proportion of non-Native women reported taking a vitamin every day of the week than Alaska Native women (29% vs. 19%, respectively). During the last three months of pregnancy, daily multivitamin use increased to 63% among non-Native women and 50% among Alaska Native women.
- During the month before pregnancy, more Alaska Native women than non-Native women reported not taking a vitamin at all (62% vs. 50%, respectively). The proportion of women who did not take multivitamins decreased to 8% of non-Native women and 12% of Alaska Native women during the last three months of pregnancy.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Prenatal Health

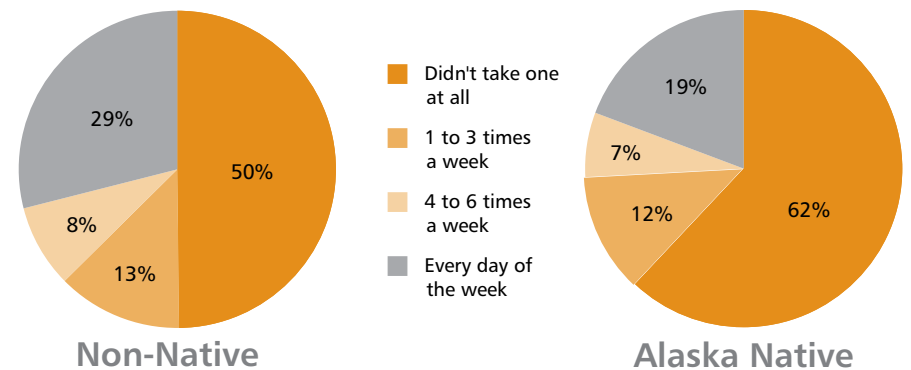
Knowledge of Folic Acid Benefits by Alaska Native Status and Year Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Multivitamin or Prenatal Vitamin Use One Month Before Pregnancy by Alaska Native Status, Alaska, 2007-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



WIC Participation

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides services designed to help pregnant and breastfeeding women, mothers of newborns (6 months old or younger), and young children (less than 5 years old) eat well, learn about good nutrition, and stay healthy. WIC provides vouchers to families meeting income and nutritional guidelines that can be used to purchase healthy foods such as milk, juice, eggs, cheese, and cereal. The program also provides nutrition counseling, breastfeeding support, and assistance with finding health care and other community services.

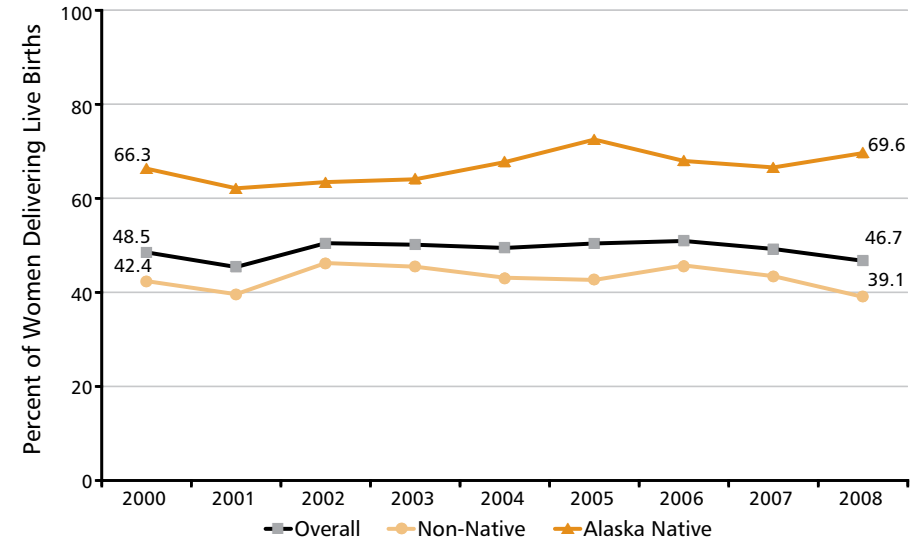
- During 2000-2008, prenatal WIC participation among Alaska Native women delivering a live birth varied from 62.1% during 2001 to 72.5% during 2005, and there was an overall increase during the study period. There was no change, however, in the percentage of non-Native women reporting prenatal WIC participation, which averaged around 43%.
- In 2008, prenatal WIC participation was higher among Alaska Native women than non-Native women (69.6% vs. 39.1%, respectively).
- During 2004-2008, the tribal health regions with the highest percentages of Alaska Native women utilizing prenatal WIC were the Arctic Slope (85.9%), Northwest Arctic (83.9%), and the Interior (81.4%).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Prenatal Health

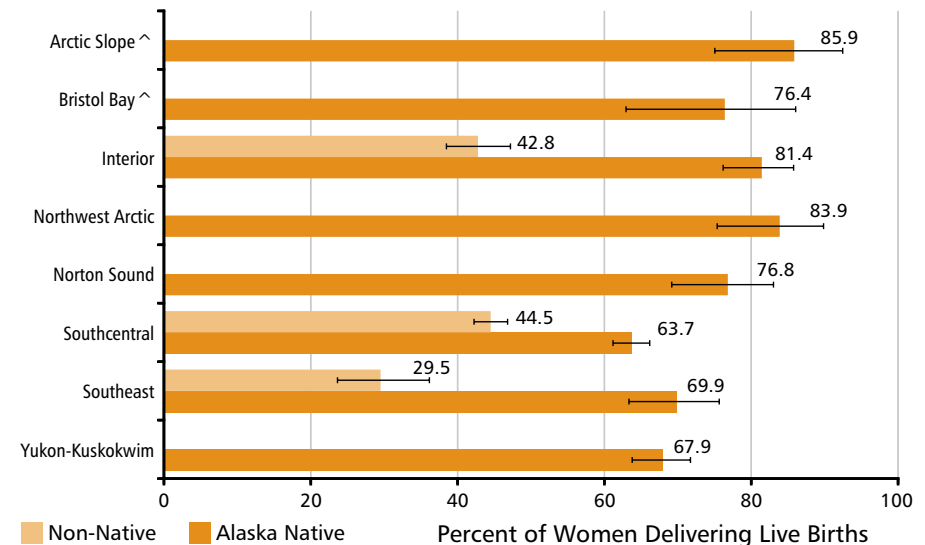
Prenatal WIC Participation by Alaska Native Status and Year Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Prenatal WIC Participation by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



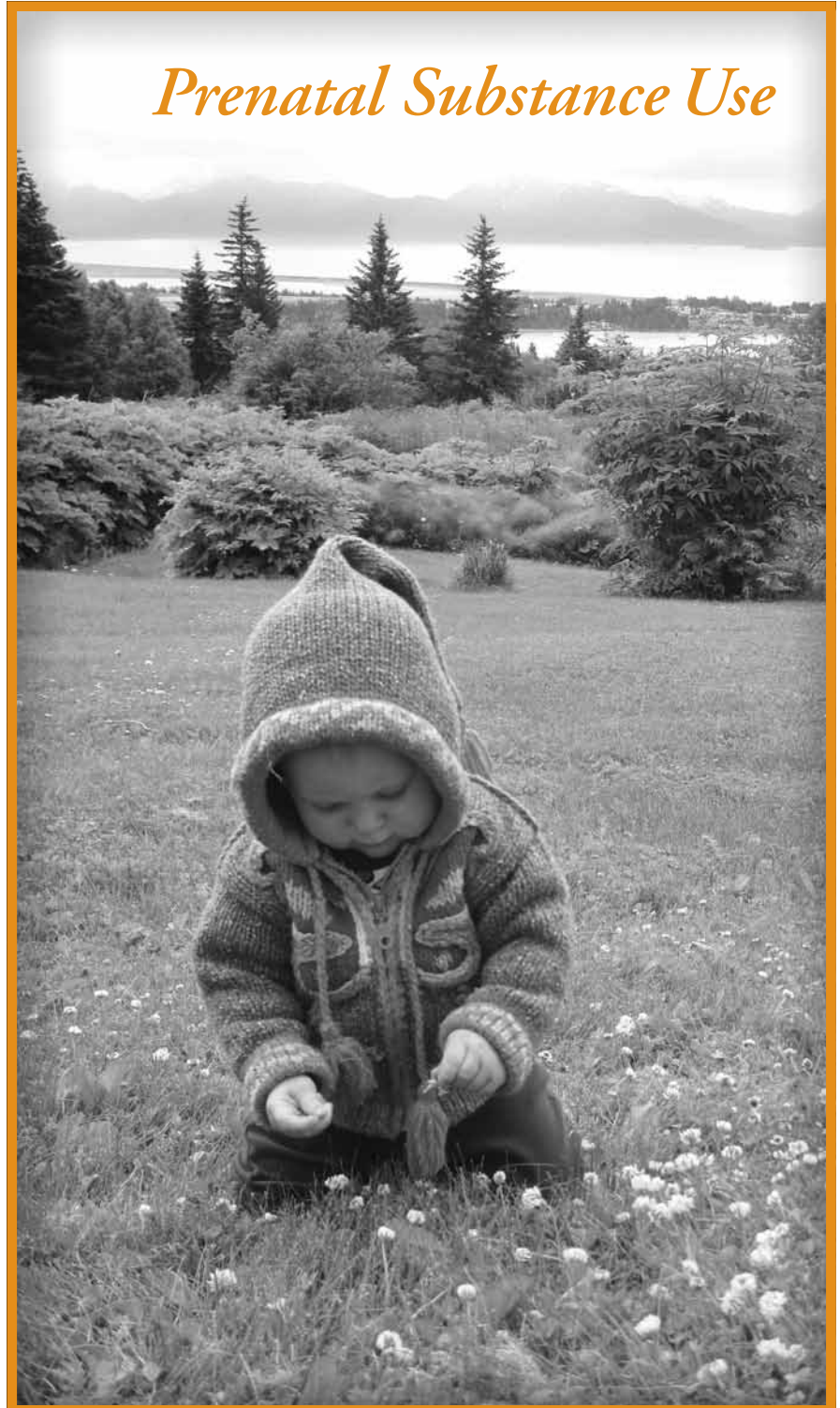
^ Data may be unreliable. Number of respondents was at least 30 but less than 60.

Chapter References

Chapter 3: Prenatal Health

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Prenatal Substance Use



Overview of Prenatal Substance Use

Abuse of substances such as tobacco, alcohol, and illicit drugs is one of the biggest health problems faced by Alaskans. A recent review of literature showed that while children often experience developmental problems as a result of in-utero substance exposure, many of these problems are treatable (1). However, since prenatal substance use by mothers can have serious adverse effects on the child and family, interventions should focus on prevention rather than treatment.

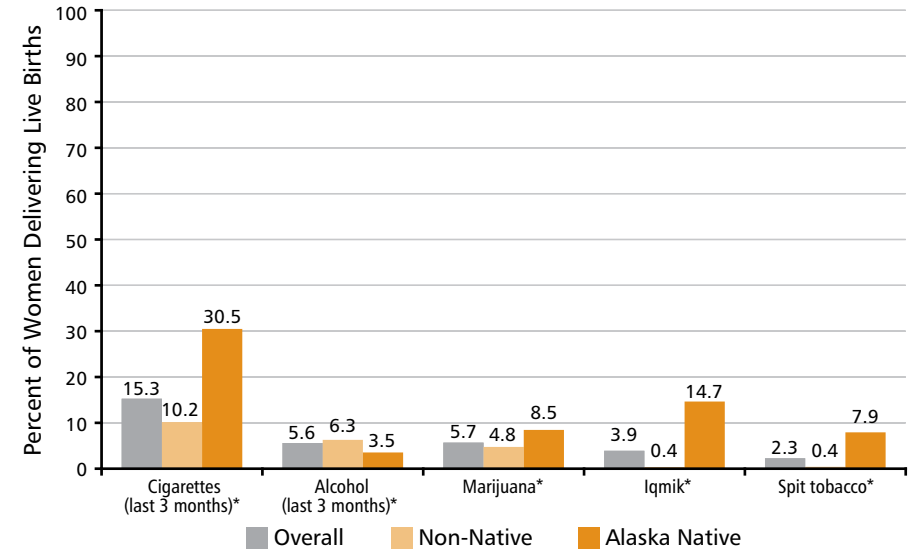
- For Alaskan births that occurred during 2007-2008, reported prenatal use of all substances except for alcohol was higher among Alaska Native women compared to non-Native women. Reported alcohol use was nearly twice as high among non-Native women as among Alaska Native women (6.3% vs. 3.5%, respectively). The reported prevalence of cigarette use among Alaska Native women was three times higher than for non-Native women (30.5% vs. 10.2%, respectively).
- For 2007-2008, 15.3% of all women reported cigarette use during the last three months of pregnancy. Cigarettes were the most common substance reported by both Alaska Native and non-Native women.
- For 2007-2008, approximately one of every seven (14.7%) Alaska Native women reported prenatal use of iqmik, a traditional form of smokeless tobacco, and one of every twelve (7.9%) reported prenatal use of a commercial spit tobacco product.
- In three tribal health regions, more than 50% of Alaska Native women reported smoking cigarettes during the last three months of their pregnancy for the period 2004-2008 (Arctic Slope, 54.6%; Bristol Bay, 56.3%; and Norton Sound, 59.1%).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Prenatal Substance Use

Prenatal Substance Use by Type and Alaska Native Status Alaska, 2007-2008

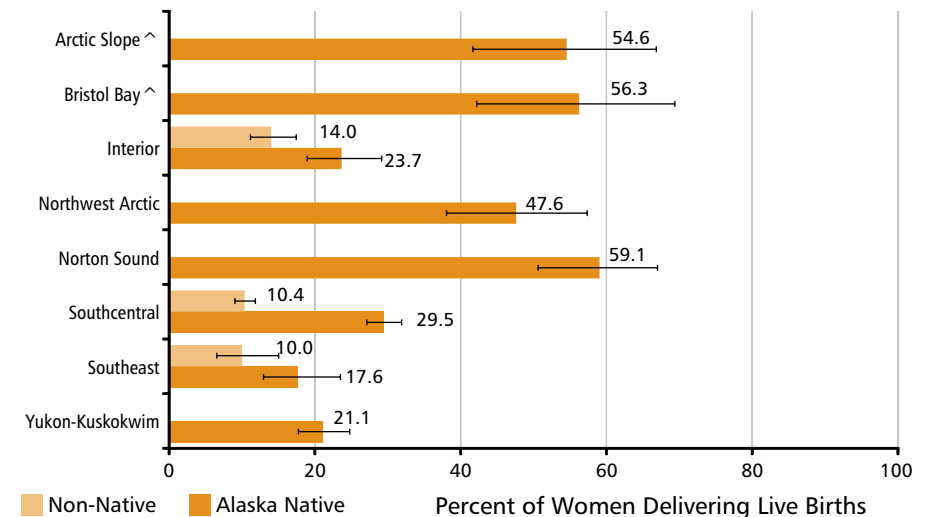
Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Prenatal Cigarette Use (Last 3 Months) by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Prenatal Cigarette Use

Smoking during pregnancy is the single most preventable known cause of infant low birth weight and prematurity. Smoking exposes the fetus to dangerous chemicals such as nicotine, carbon monoxide and tar that can decrease the amount of oxygen the baby receives. Women who smoke are more likely to have ectopic pregnancy, placental abruption, and still birth. Prenatal smoking also increases the risk of birth defects such as cleft lip or palate and postnatal events such as Sudden Infant Death Syndrome (SIDS) or Sudden Unexpected Infant Death (2).

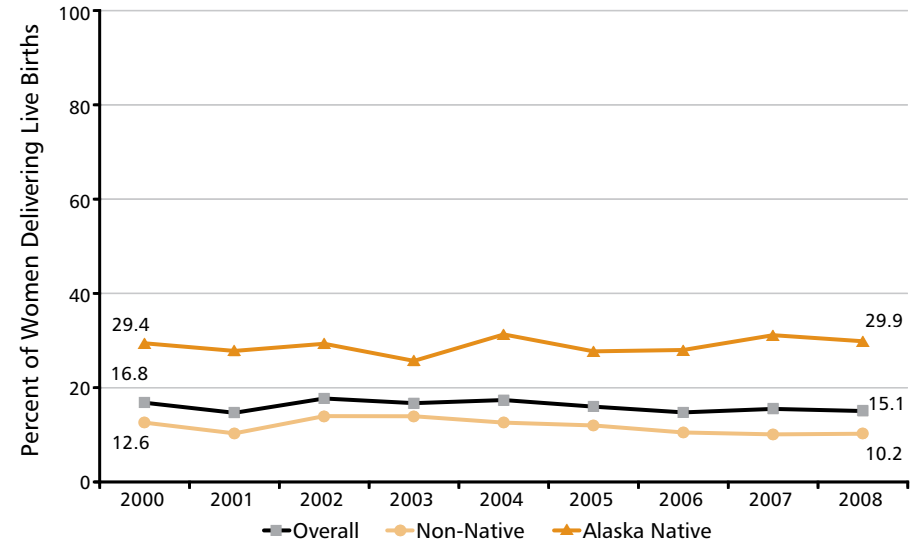
- Between 2000 and 2008, there was no change in the overall prevalence of women in Alaska who reported smoking during the last three months of their pregnancy.
- The prevalence of prenatal cigarette use was stable for both Alaska Native and non-Native women between 2000 and 2008. The prevalence among Alaska Native women was consistently about three times higher than among non-Native women (during 2008, 30% vs. 10%, respectively).
- Among all women who reported prenatal smoking in 2007 and 2008, 35% reported smoking more than five cigarettes a day on an average day during the last three months of their pregnancy.
- On an average day during the last three months of their pregnancy, 14% of non-Native women reported that they smoked 11-20 cigarettes a day and 3% reported smoking 21 cigarettes or more a day; values for the same outcomes among Alaska Native women were 7% and 2%, respectively.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Prenatal Substance Use

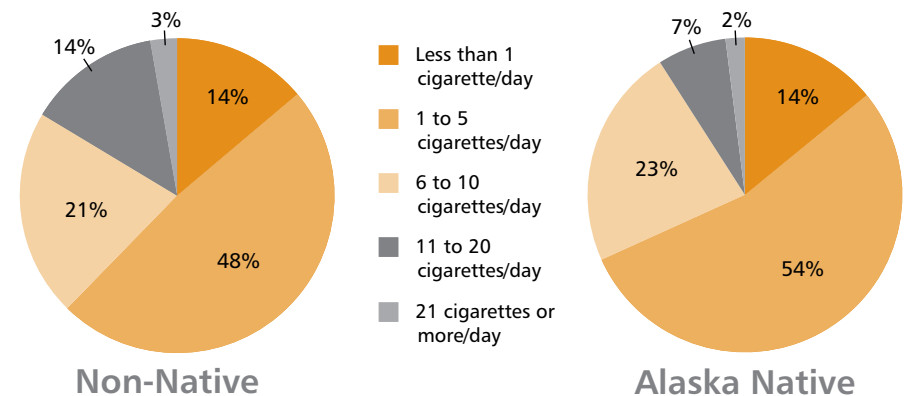
Prenatal Cigarette Use (Last 3 Months) by Alaska Native Status and Year, Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Number of Cigarettes Smoked During Last 3 Months of Pregnancy, Prenatal Cigarette Smokers, Alaska, 2007-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Prenatal Smokeless Tobacco Use

Smokeless tobacco (spit), or chew, can cause cancer and non-cancerous oral conditions and lead to nicotine addiction and dependence. Alaska Native women in the southwest of Alaska have high prenatal chew use rates, including the use of iqmik. Iqmik is a smokeless tobacco product consisting of fungus, willow, or driftwood ash mixed with commercial tobacco (3).

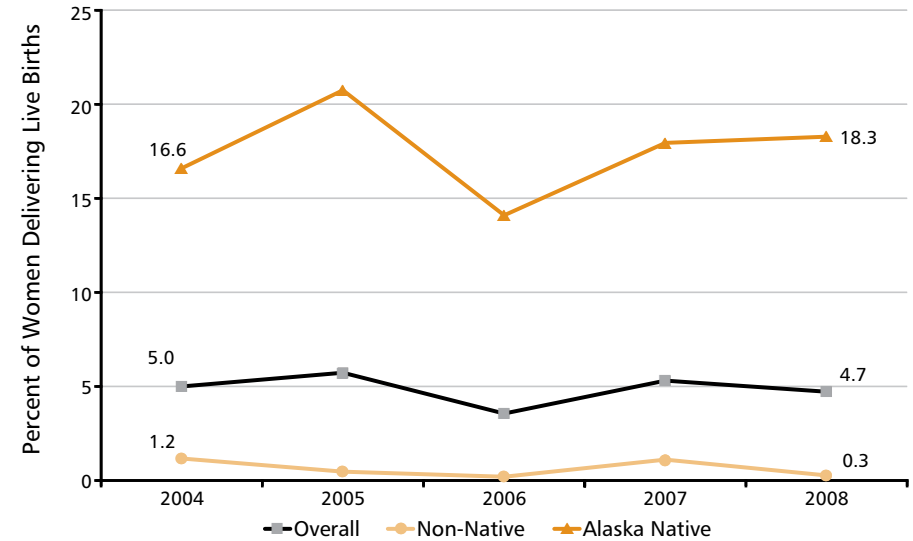
- Among non-Native women, spit tobacco or iqmik use during pregnancy was low during 2004-2008 (0.3% during 2008). By contrast, 18.3% of Alaska Native women reported prenatal spit tobacco or iqmik use during 2008.
- During 2004-2008, the prevalence of reported prenatal spit tobacco or iqmik use among Alaska Native women ranged from 14.1% in 2006 to 20.8% in 2005, but there was no significant trend during the five-year period.
- Of all women reporting prenatal spit tobacco or iqmik use during 2004-2008, 57% resided in the Yukon-Kuskokwim tribal health region. Among Alaska Native women residing in the Yukon-Kuskokwim region, 57.7% reported prenatal spit tobacco or iqmik use during 2004-2008.
- Less than 5% of women residing in the Arctic Slope, Interior, Northwest Arctic, and Southeast tribal health regions reported prenatal spit tobacco or iqmik use during 2004-2008.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Prenatal Substance Use

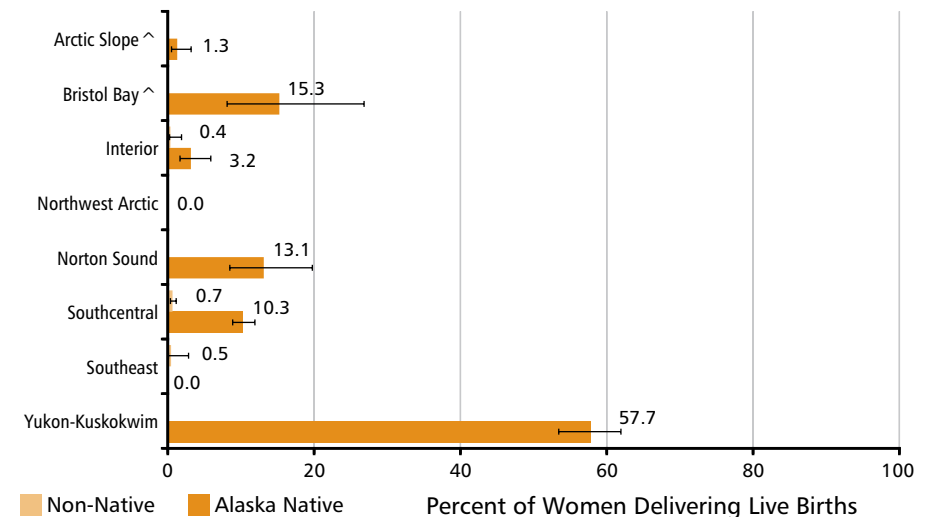
Prenatal Spit Tobacco or Iqmik Use by Alaska Native Status and Year, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Prenatal Spit Tobacco or Iqmik Use by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Prenatal Marijuana Use

Studies have shown mixed results on the effects of marijuana use during pregnancy. A recent study in Hawaii found an association between prenatal use of marijuana and birth defects of the gastrointestinal system (4). Another study found that the children of mothers who reported prenatal marijuana use were more likely to use cigarettes and marijuana themselves, compared with the children of mothers who did not report prenatal marijuana use (5).

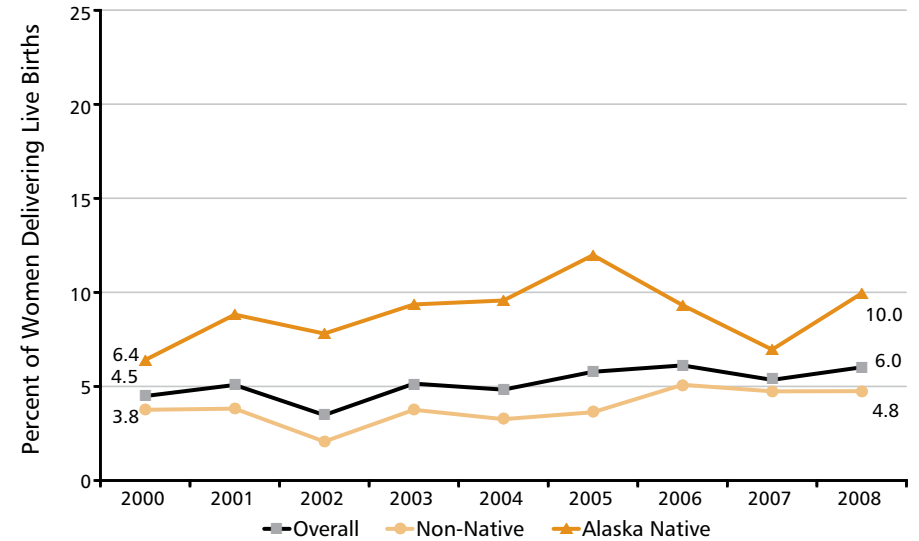
- The percent of Alaskan women who reported prenatal marijuana use increased from 4.5% in 2000 to 6.0% in 2008. Prenatal marijuana use increased among non-Native women, but not among Alaska Native women.
- In 2008, Alaska Native women were twice as likely as non-Native women to report prenatal marijuana use (10.0% vs. 4.8%, respectively).
- Among Alaska Native women delivering in 2004-2008, the tribal health region with the highest reported prenatal marijuana use was the Arctic Slope (24.4%). Among non-Native women, residents of the Southeast region had the highest reported use of marijuana prenatally (7.7%).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Prenatal Substance Use

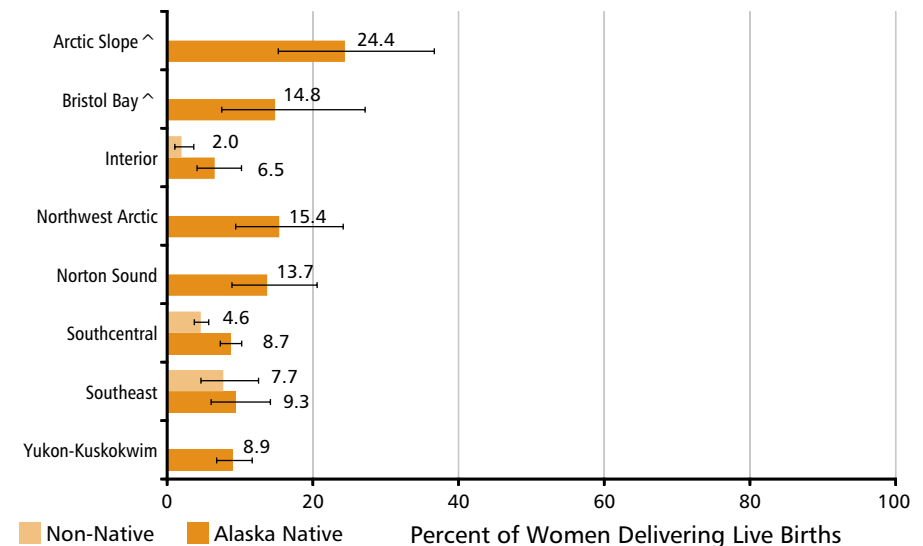
Prenatal Marijuana Use by Alaska Native Status and Year Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Prenatal Marijuana Use by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Prenatal Alcohol Use

Prenatal alcohol use is associated with poor infant outcomes, including some birth defects and developmental disabilities. Population-based estimates of fetal alcohol syndrome (FAS) birth prevalence are higher for Alaska than other states; however, recent data show that Alaska experienced a 32% decline in FAS prevalence for births during 1996-2002 (6). The American Academy of Pediatrics recommends that all health care providers advocate for programs that identify women of childbearing age who use alcohol during pregnancy and offer them treatment (7). While first trimester exposure to alcohol is especially damaging to the fetus, the data presented here reflect self-reported maternal alcohol use during the last three months of pregnancy.

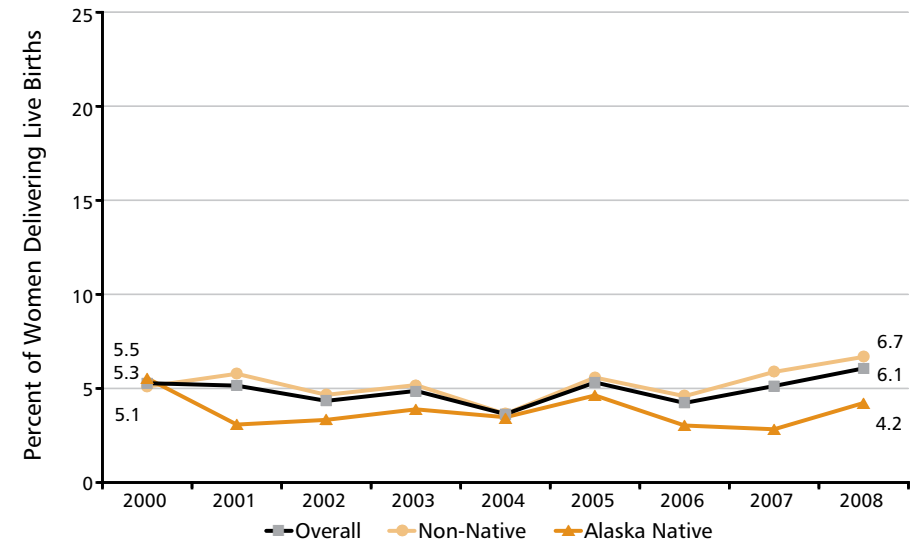
- There was no trend in the percent of all Alaskan women and all Alaska Native women reporting alcohol use during the last three months of pregnancy during 2000-2008. Among non-Native women, the prevalence of reported prenatal alcohol use increased during 2004-2008.
- The overall prevalence of Alaskan women reporting alcohol use during the last three months of pregnancy in 2008 (6.1%) was almost twice the Healthy People 2010 target of 3.5% for any alcohol use during the prenatal period.
- During 2004-2008, 0.7% of non-Native women reported binge drinking during the last three months of pregnancy, as compared to 1.6% of Alaska Native women. However, the reported prevalence of any drinking was higher among non-Native than Alaska Native women (5.3% vs. 3.6%, respectively).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Prenatal Substance Use

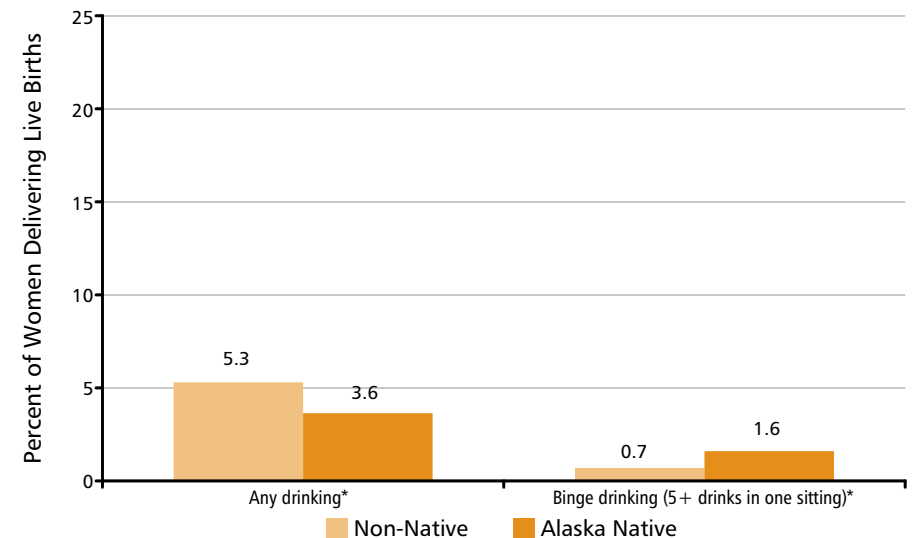
Any Prenatal Alcohol Use (Last 3 Months) by Alaska Native Status and Year, Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Prenatal Alcohol Use (Last 3 Months), Any and Binge by Alaska Native Status, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Chapter References

Chapter 4: Prenatal Substance Use

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5. Porath, A. Fried, P. Effects of prenatal cigarette and marijuana exposure on drug use among offspring. *Neurotoxicology & Teratology*. 2005 Mar; 27(2): 267-277.
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Pre-pregnancy Body Mass Index (BMI)

A body mass index (BMI) 25 or greater and less than 30 is considered overweight and a BMI 30 or greater is obese. Obesity and overweight are conditions that threaten health at all stages of life and are related to a variety of poor physical and emotional health outcomes. According to the Alaska Behavioral Risk Factor Surveillance System, 25.7% of non-Native adults 18 years or older and 34.5% of Alaska Native adults were obese in 2009. The prevalence of being overweight was similar for non-Native and Alaska Native adults (38.4% and 37.3%, respectively) (1). Comparable to national trends, the prevalence of overweight in Alaskan adults has remained stable since 1991, while the prevalence of obesity has more than doubled. Obesity among women prior to pregnancy is related to an increased risk of diabetes and congenital abnormalities (2). In 27 states conducting PRAMS in 2004, 22% of mothers had a pre-pregnancy BMI that met the definition of obese (3).

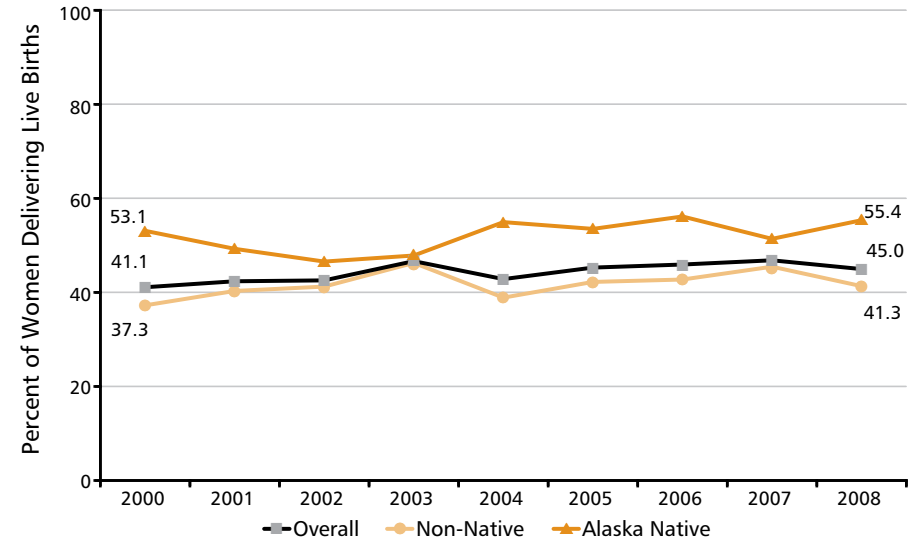
- In 2008, 45.0% of Alaskan women delivering live births reported a pre-pregnancy BMI consistent with overweight or obese. The overall percentage of women who were overweight or obese at the time they got pregnant increased during 2000-2008 from 41.1% to 45.0%.
- The percent of Alaska Native women who were overweight or obese prior to pregnancy increased during 2000-2008, from 53.1% to 55.4%. There was no change among non-Native women.
- More Alaska Native than non-Native women who delivered in 2007-2008 reported having a pre-pregnancy weight consistent with overweight or obese (53.4% vs. 43.4%, respectively).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Maternal Health

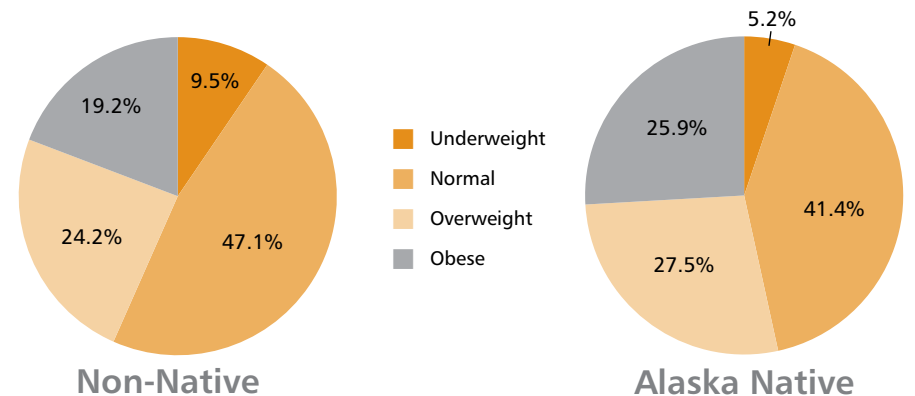
Pre-pregnancy Overweight or Obesity by Alaska Native Status and Year, Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Pre-pregnancy Body Mass Index (BMI) by Alaska Native Status Alaska, 2007-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Maternal Mental Health

Postpartum depression is depression that begins at any time within the first three months after delivery. Approximately one out of every eight women nationally experiences symptoms of postpartum depression, making it one of the most common complications of pregnancy and the postpartum period (4). Postpartum depression affects the health of the woman and her family, especially when symptoms are severe or persistent. During 2004-2008, PRAMS used two questions to measure depression symptoms since delivery. The first asked, "...how often have you felt down, depressed, or hopeless?" The second asked, "...how often have you had little interest or little pleasure in doing things?" Mothers who responded "always" or "often" to either question, or "sometimes" to both, were classified as experiencing symptoms of depression. A study using Alaska PRAMS data linked to a follow-up survey found that almost half of women who reported postpartum symptoms of depression in 2004 continued to report symptoms two years later (5).

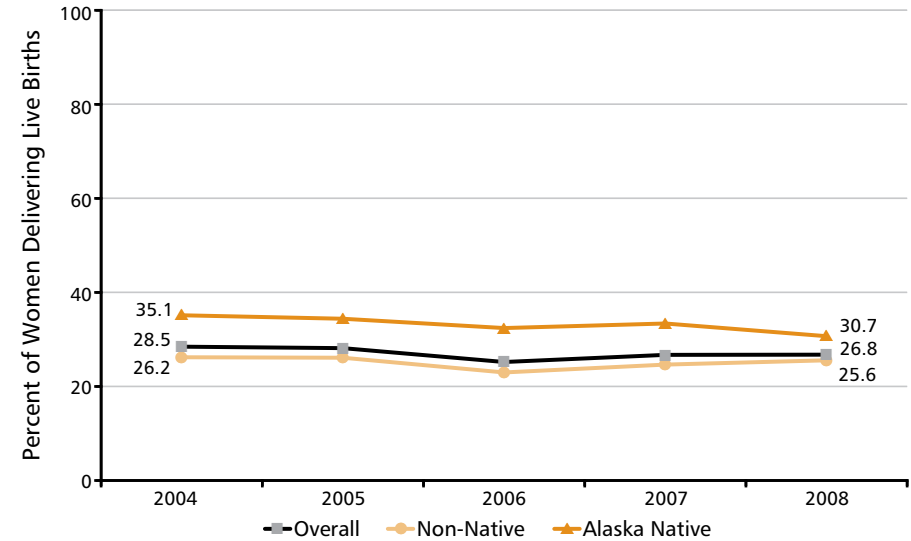
- The prevalence of symptoms of postpartum depression did not change during 2004-2008. In 2008, 26.8% of all Alaskan women delivering live births experienced postpartum depression symptoms.
- Between 2004 and 2008, Alaska Native women were consistently more likely to report postpartum symptoms of depression than non-Native women. In 2008, 30.7% of Alaska Native women experienced postpartum depression symptoms, compared to 25.6% of non-Native women.
- The prevalence of Alaska Native women reporting symptoms of postpartum depression for birth years 2004-2008 ranged from 28.5% in the Southeast tribal health region to 47.2% in Norton Sound.
- In 2008, 6.7% of Alaska Native women and 7.7% of non-Native women indicated that they had been diagnosed with depression since their new baby was born.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Maternal Health

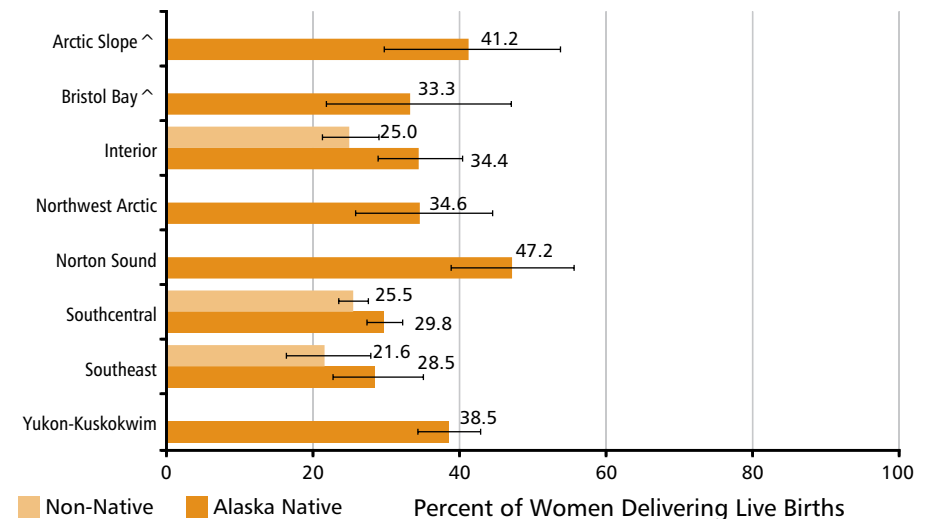
Symptoms of Maternal Depression by Alaska Native Status and Year, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Symptoms of Maternal Depression by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Experience of Stressful Life Events

Stressful events experienced during pregnancy can affect the physical and emotional health of the mother, the infant and the whole family.

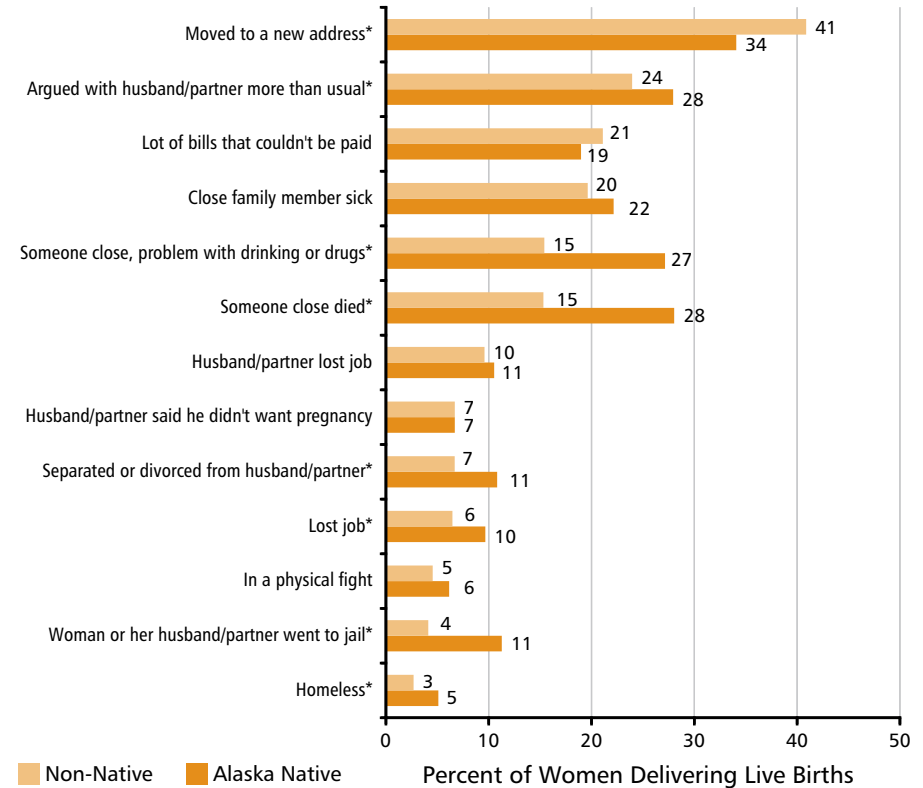
- The most common stressful events experienced by all women who recently delivered live births during the 12 months before their baby was born were: moved to a new address (39.2%); argued with husband or partner more than usual (24.8%); had a lot of bills that couldn't be paid (20.5%); had a close family member that was sick (20.3%); had someone very close to her die (18.4%); and had someone very close to her with a bad problem with drinking or drugs (18.3%).
- Alaska Native women and non-Native women experienced the same top six most common stressful life events; however, the rank order differed between the two groups.
- Several stressful events were more common among Alaska Native women compared with non-Native women. In descending order of prevalence, these included having someone close die (28%), arguing with husband or partner more than usual (28%), having someone close with a bad problem with drinking or drugs (27%), going to jail or having a husband or partner who went to jail (11%), becoming separated or divorced from a husband or partner (11%), losing a job (10%), and being homeless (5%).
- Compared with Alaska Native women, more non-Native women reported that they moved to a new address during the 12 months before their baby was born (41% vs. 34%, respectively).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Maternal Health

Life Stressors Among Women Recently Delivering a Live Birth by Alaska Native Status, Alaska, 2007-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



* Statistically significant difference between Alaska Native and Non-Native (p < 0.05).

Physical & Emotional Abuse

Physical abuse increases the likelihood that women will have pregnancy complications and adverse birth outcomes such as low birth weight, preterm birth, increased risk of cesarean delivery, uterine rupture, perinatal hemorrhage, and antenatal hospitalizations (6). In addition, growing up in a home with violence can lead to lifelong health effects for children (7). Alaskan women who recently delivered a live birth were asked if they experienced physical or emotional abuse, which included having a controlling partner. This was defined as having a husband or partner who threatened the respondent, limited her activities against her will, or made her feel unsafe in any other way before, during, or after her pregnancy.

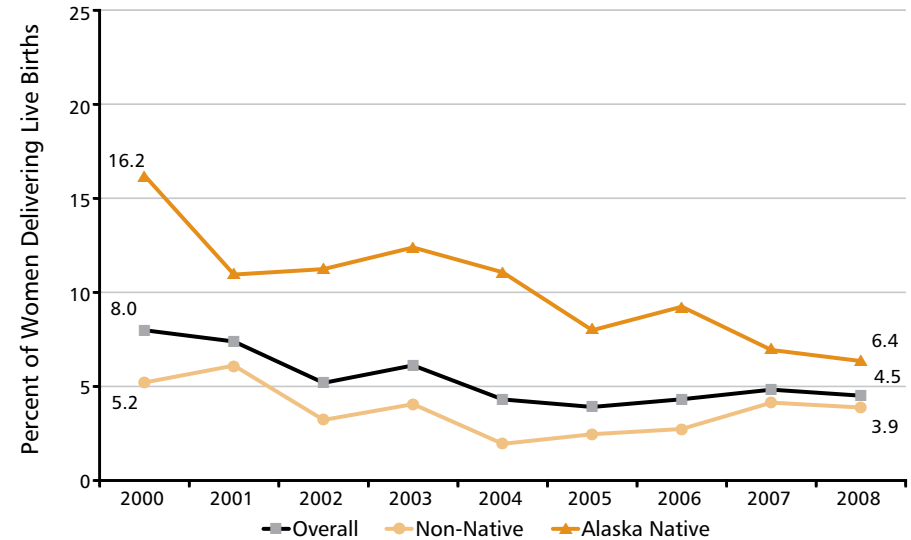
- The overall percentage of Alaskan women reporting physical abuse by a husband or partner during the 12 months before they became pregnant decreased 44%, from 8.0% in 2000 to 4.5% in 2008.
- The percentage of Alaska Native women reporting physical abuse during the 12 months before they became pregnant declined from 16.2% in 2000 to 6.4% in 2008, a 61% decline.
- Both pre-pregnancy and prenatal physical abuse were more common among Alaska Native women than non-Native women during 2000-2008. For both outcomes, the Alaska Native/non-Native disparity decreased due to declines in the prevalence among Alaska Native women.
- Among all Alaskan women, prenatal physical abuse by a husband or partner declined 40% from 5.2% in 2000 to 3.1% in 2008. Among Alaska Native women, there was a 58% decline from 9.6% in 2000 to 4.0% in 2008.
- Between 2000 and 2008, there was no significant trend in the percentage of Alaskan women who reported having a controlling partner 12 months before, during, or after pregnancy. Annual prevalence ranged from 6.7% to 8.6%.
- The prevalence of a controlling partner was consistently higher among Alaska Native women compared to non-Native women during 2000-2008. In 2008, 11.2% of Alaska Native women reported having a controlling partner compared with 7.4% of non-Native women.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Maternal Health

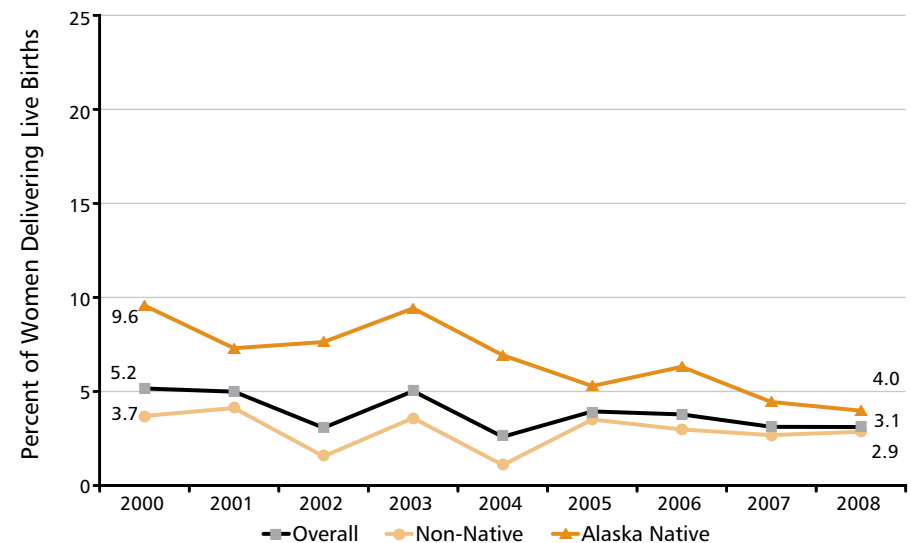
Physical Abuse by Husband or Partner During the 12 Months Before Pregnancy by Alaska Native Status and Year, Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Prenatal Physical Abuse by Husband or Partner by Alaska Native Status and Year, Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Oral Health

Good oral health care is an important part of a healthy lifestyle. While experts have found hormonal changes that occur during pregnancy may increase the adverse effects of dental plaque, studies that have examined the association between oral infections or disease and pregnancy outcomes have had mixed results (8). Routine dental care, non-surgical periodontal care and the use of topical or local anesthesia for dental procedures have not been found to be associated with adverse pregnancy outcomes, and oral health professionals recommend providing treatment when indicated (8). To address the problem of limited access to preventive services and basic dental care in many remote villages, the Alaska Native Tribal Health Consortium initiated a Dental Health Aide Program in 2003 to train and place dental health aide therapists in rural areas of the state.

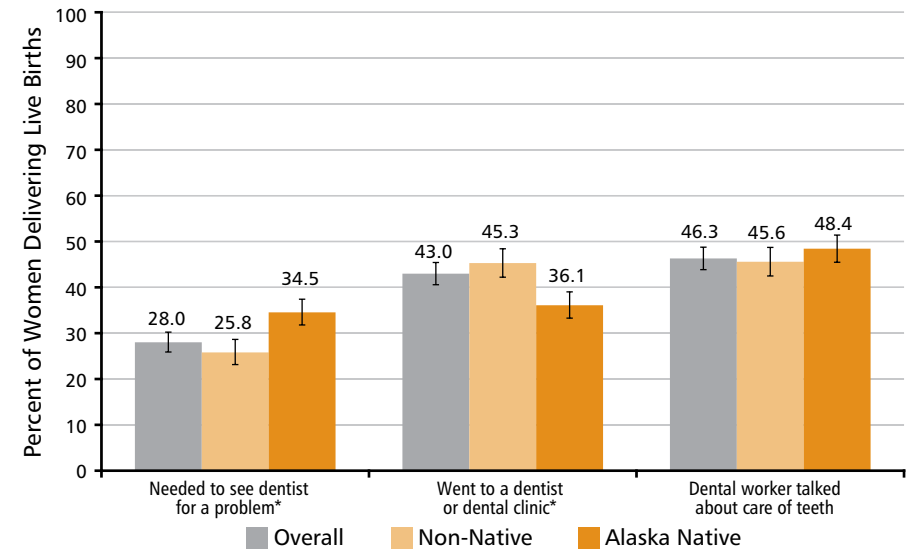
- Among women delivering during 2007-2008, more Alaska Native women than non-Native women indicated that they needed to see a dentist for a problem during their pregnancy (34.5% vs. 25.8%, respectively). However, more non-Native women than Alaska Native women went to a dentist or dental clinic for care during their pregnancy (45.3% vs. 36.1%, respectively).
- Among all Alaskan women, 46.3% indicated that a dental or other health care worker talked with them during their pregnancy about how to care for their teeth and gums.
- While most women (92%) delivering a live birth in 2008 indicated they had their teeth cleaned at some time in their lives, 17.2% of Alaska Native women and 5% of non-Native women had never had a teeth cleaning.
- During 2004-2008, the prevalence of ever having a teeth cleaning was higher than 80% for mothers of newborns in three tribal health regions: Southeast, Interior, and Southcentral. Alaska Native women in the Bristol Bay and Yukon-Kuskokwim regions had the lowest prevalences of ever having a teeth cleaning (67.6% and 66.7%, respectively).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Maternal Health

Prenatal Oral Health Issues by Alaska Native Status Alaska, 2007-2008

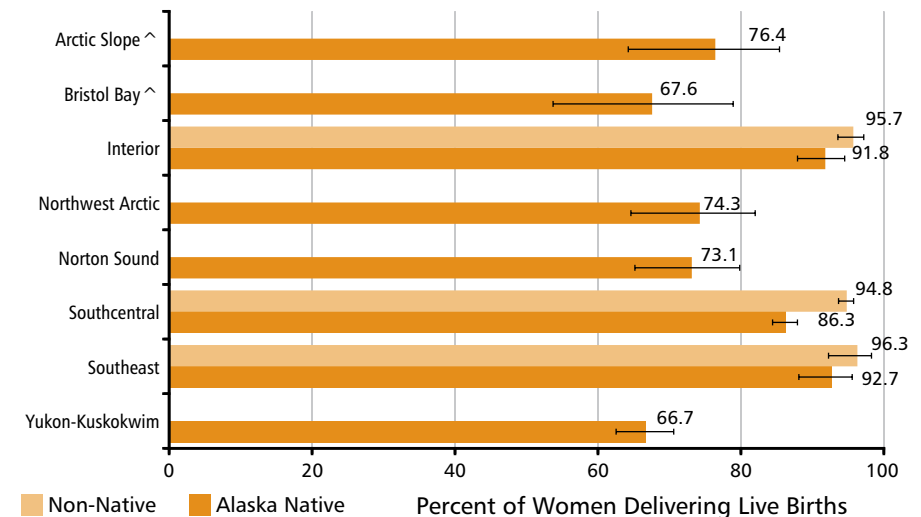
Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Ever Had Teeth Cleaned by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Chapter References

Chapter 5: Maternal Health

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Breastfeeding Prevalence

Breastfeeding is beneficial for infants and mothers. Breast milk is easier to digest than formula and helps babies fight disease because it contains the mother's antibodies. Children who were breastfed have a lower risk of many health conditions, including lower respiratory infections, asthma, obesity, diabetes, childhood leukemia, and Sudden Infant Death Syndrome (1). For the mother, breastfeeding is convenient, can save money, and increases mother-infant bonding. Additionally, women who breastfeed have a lower risk of breast cancer and ovarian cancer and return to their pre-pregnancy weight earlier than women who don't breastfeed. Data from the National Immunization Survey indicated that among all US children born in 2007, 75% were ever breastfed (2).

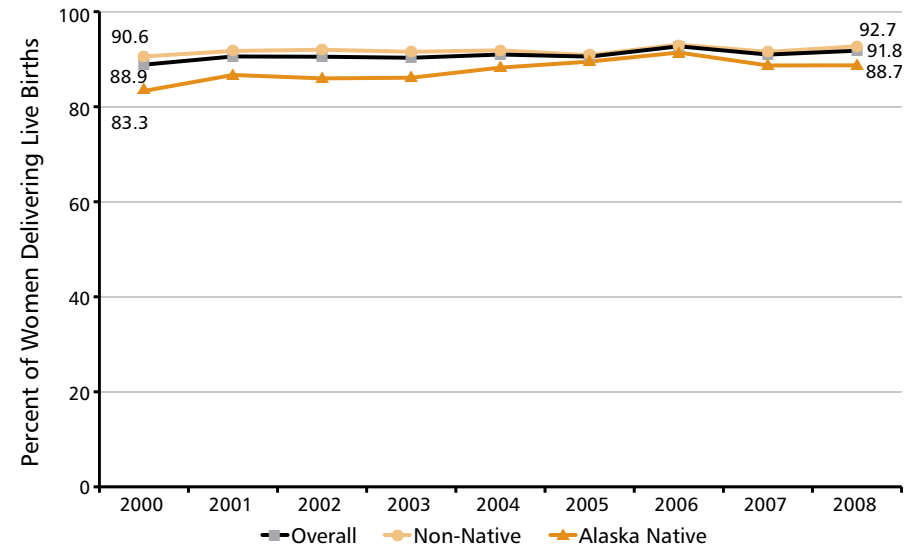
- The percent of Alaskan women who initiated breastfeeding increased from 88.9% in 2000 to 91.8% in 2008. Breastfeeding initiation increased among Alaska Native women (from 83.3% to 88.7%) but not among non-Native women.
- 91.3% of Alaskan women delivering a live birth in 2007-2008 initiated breastfeeding. The percent still breastfeeding at 4 weeks postpartum was 80.1%. This declined to 70.8% at 8 weeks postpartum.
- Breastfeeding was more common among non-Native women compared to Alaska Native women at all three time periods measured (birth, 4 weeks and 8 weeks postpartum).
- The Alaska Native/non-Native disparity increased with length of breastfeeding duration. Breastfeeding among Alaska Native women dropped 29%, from 88.7% at initiation to 63.1% at 8 weeks. By comparison, breastfeeding rates among non-Native women dropped 21%, from 92.2% at birth to 73.2% at 8 weeks.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Infant Health

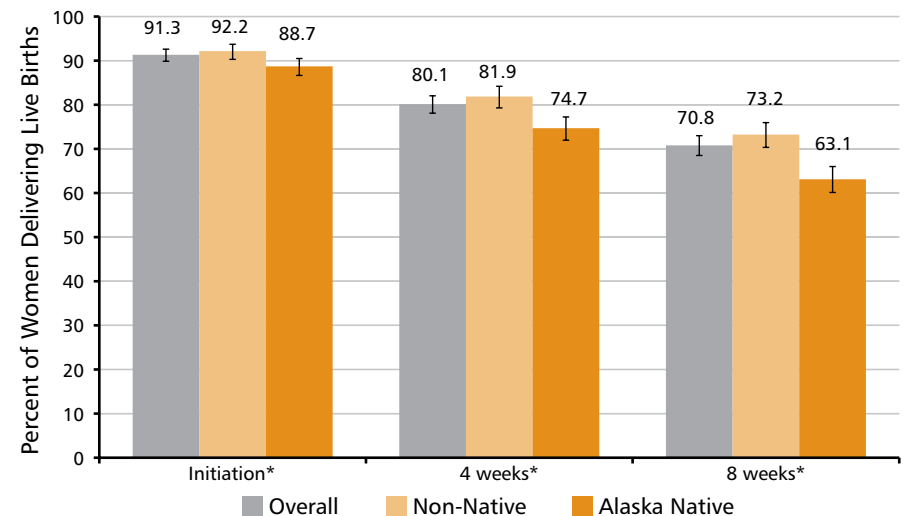
Breastfeeding Initiation by Alaska Native Status and Year Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Breastfeeding Initiation, 4 Weeks, and 8 Weeks Postpartum by Alaska Native Status, Alaska, 2007-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Barriers to Breastfeeding

The American Academy of Pediatrics recommends that mothers breast-feed their infants for at least 12 months, and after that time for as long as the mother desires. Feeding infants only breast milk will provide the necessary nutrition they require until six months of age, at which time solid foods can be introduced to complement breast milk as the infant's main source of nutrients throughout the first year (1). Breastfed and partially breastfed infants should receive regular vitamin D supplements to prevent vitamin D deficiency and in rare cases rickets; this is particularly important in Alaska because living at high latitudes is a risk factor for vitamin D deficiency (3).

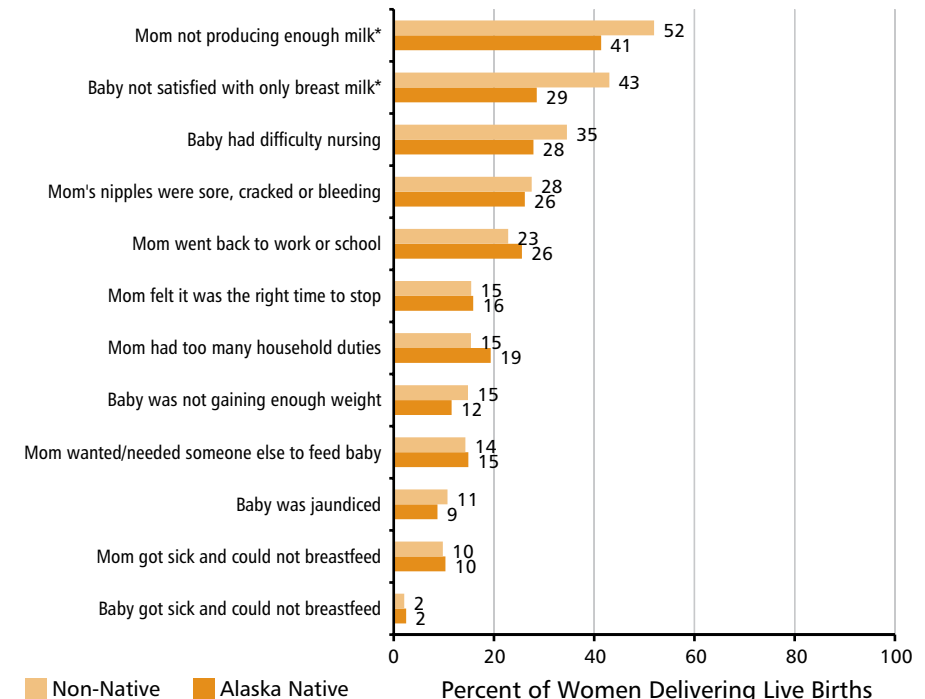
- The top three reasons why Alaskan women delivering a live birth in 2007-2008 reported they stopped breastfeeding were: 1) they were not producing enough milk (49%); 2) the baby was not satisfied with only breast milk (39%); and 3) the infant had difficulty nursing (33%).
- The top three reasons for stopping breastfeeding were the same for non-Native and Alaska Native women; however a higher percentage of non-Native women compared with Alaska Native women said they stopped because they were not producing enough milk (52% vs. 41%) and that their baby was not satisfied with only breast milk (43% vs. 29%, respectively).
- Alaska Native breastfeeding women introduced liquid or food supplements for their infant a week sooner on average than non-Native breastfeeding women. The average age of starting supplementation was 5.1 weeks among Alaska Native women and 6.2 weeks among non-Native women.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Infant Health

Reasons for Stopping Breastfeeding by Alaska Native Status Alaska, 2007-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



* Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Infant Sleep

Sudden Infant Death Syndrome (SIDS) is the third leading cause of infant death in the United States. The cause of SIDS is not completely understood, but research has shown that many of these deaths may be accidental suffocation related to an unsafe sleep environment (4). To reduce the risk of SIDS, the American Academy of Pediatrics recommends that infants be placed on their back for every sleep (4). Other recommendations include using a firm sleep surface, keeping soft objects and loose bedding out of the crib, and having a separate but close sleeping space for the infant.

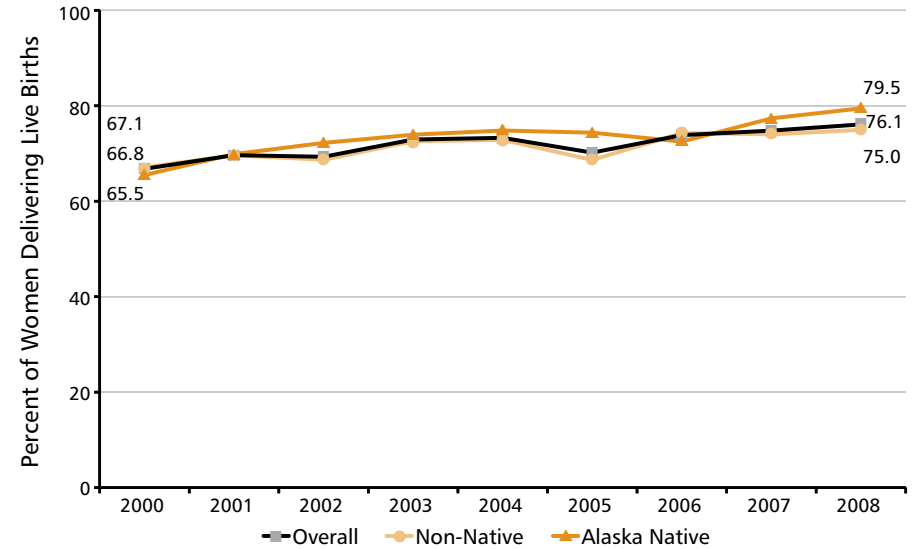
- The percent of women in Alaska who most often placed their infants on their backs for sleep increased from 66.8% in 2000 to 76.1% in 2008.
- The increasing trend in placing infants on their back for sleep occurred among both non-Native and Alaska Native women.
- The percent of women who indicated that their infant always or often shared a bed with her or someone else increased for all Alaskan women from 39.9% in 2000 to 47.8% in 2008. This practice was less common among non-Native women compared to Alaska Native women (in 2008: 43.1% vs. 63.9%, respectively).
- The prevalence of always or often bed sharing among mothers in 16 PRAMS states in 2004 was 27.9% (5). Alaska had the highest prevalence of always or often bed sharing compared to the 15 other states that collected these data.

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Infant Health

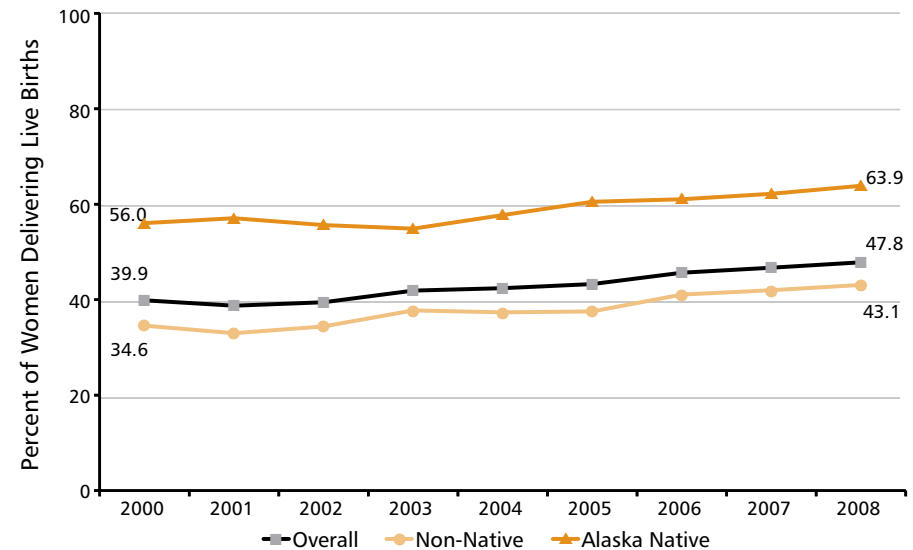
Placing Infants to Sleep on Their Backs by Alaska Native Status and Year, Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Bed Sharing (Always or Often) by Alaska Native Status and Year Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Environmental Tobacco Smoke

Environmental tobacco smoke (ETS), or “second-hand smoke,” can expose a non-smoker to harmful chemicals. More than 7,000 chemicals have been identified in ETS and at least 250 of these are associated with harmful health outcomes, including 69 that are linked to cancer (6). Non-smoking pregnant women who are exposed to ETS have an increased risk of adverse pregnancy outcomes such as lower birth weight, smaller head circumference and stillbirth (7). Children exposed to ETS are at a higher risk of sudden infant death syndrome, ear infections, colds, pneumonia, bronchitis, and asthma (6).

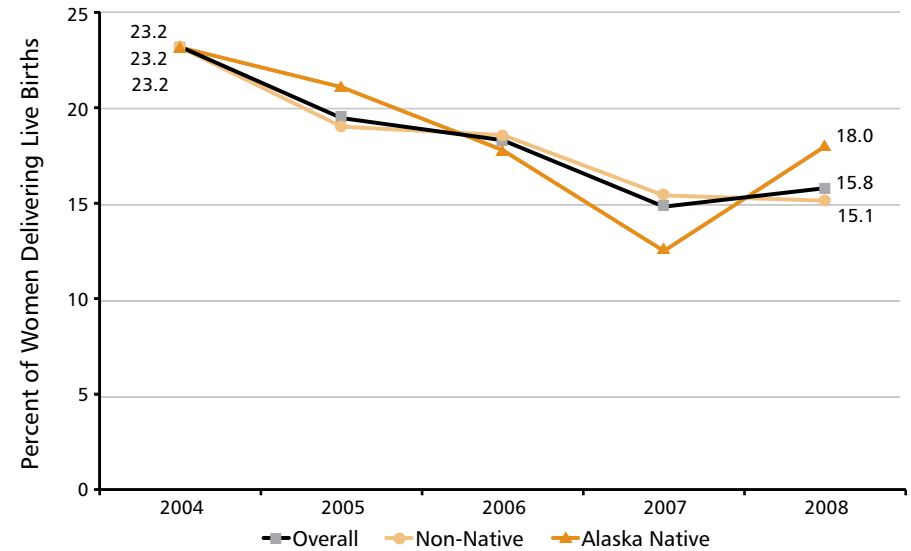
- The percent of Alaskan women who reported prenatal exposure to ETS declined from 23.2% in 2004 to 15.8% in 2008.
- During the five-year period 2004-2008, the prevalence of prenatal exposure to ETS declined among Alaska Native women from 23.2% in 2004 to a low of 12.5% in 2007 and rose to 18.0% in 2008. Among non-Native women, the prevalence of prenatal exposure to ETS declined from 23.2% in 2004 to 15.1% in 2008.
- In 2008, the percent of Alaska Native and non-Native women reporting prenatal exposure to ETS was similar (18.0% and 15.1%, respectively).
- The prevalence of women who reported that their infant was exposed to secondhand tobacco smoke during an average day decreased from 5.3% in 2000 to 2.0% in 2008.
- The prevalence of secondhand smoke exposure declined for infants of both Alaska Native and non-Native mothers, and was similar in 2008 (1.8% and 2.1%, respectively).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Infant Health

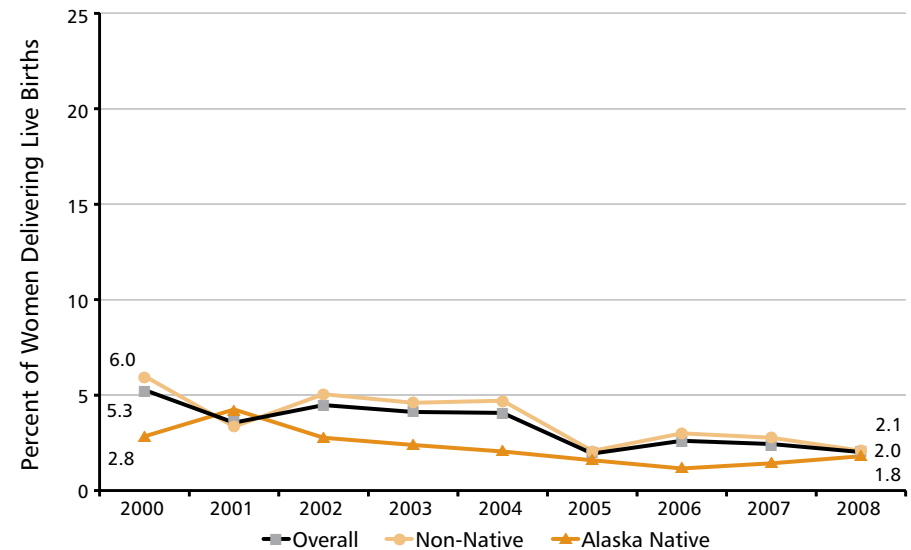
Prenatal Exposure to Secondhand Tobacco Smoke by Alaska Native Status and Year, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Infant Exposure to Secondhand Tobacco Smoke by Alaska Native Status and Year, Alaska, 2000-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



Well-child Checkups

The American Academy of Pediatrics recommends that infants be seen by a health care provider for routine well-child care visits at the following intervals: 1 week, and 1, 2, 4, 6, 9, and 12 months of age (8). These appointments provide an opportunity for a health care provider to track growth and development; administer immunizations, screening tests, and health assessments; and provide health education and guidance to parents (5).

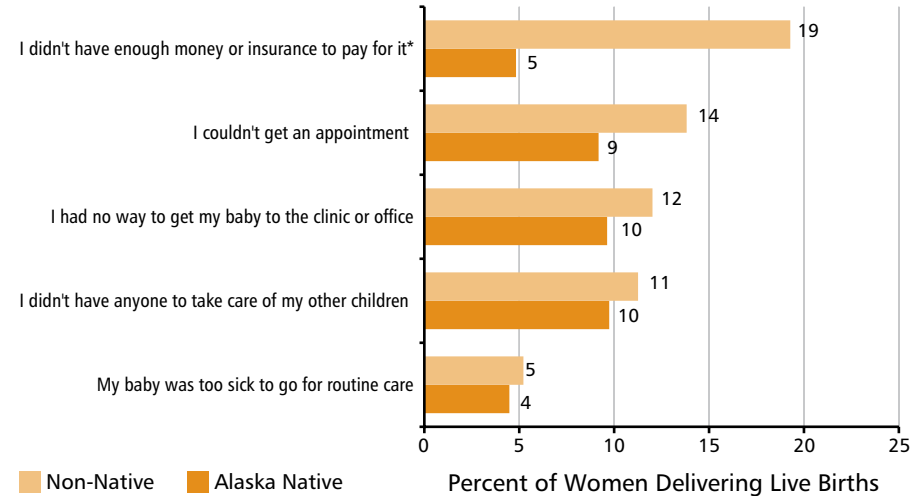
- During 2004-2008, 97% of women in Alaska reported that their infant had received at least one well-baby checkup, including 97% of non-Native women and 96% of Alaska Native women.
- During 2007-2008, 10% of Alaskan women indicated that their infant had not gone as many times as they wanted for a well-baby checkup. Among these women, the most common reasons that kept their infant from having a well-baby checkup were: they didn't have enough money or insurance to pay for it (13%), they couldn't get an appointment (12%), they didn't have a way to get their child to the clinic or office (11%), and they didn't have anyone to take care of their other children (11%).
- The percent of women who didn't have enough money or insurance to pay for a well-baby checkup was higher for non-Native women than Alaska Native women (19% vs. 5%, respectively).
- During 2004-2008, among non-Native women, women in the South-central tribal health region reported the highest prevalence of well-baby checkups (97%), while women in the Southeast region had the lowest prevalence (93%). Among Alaska Native women, the highest prevalence was in the Bristol Bay region (100%) and the lowest was in the Yukon-Kuskokwim region (91%).

Data Source: Alaska Pregnancy Risk Assessment Monitoring System (PRAMS), State of Alaska, Division of Public Health.

Infant Health

Well-baby Checkup Barriers† by Alaska Native Status Alaska, 2007-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.

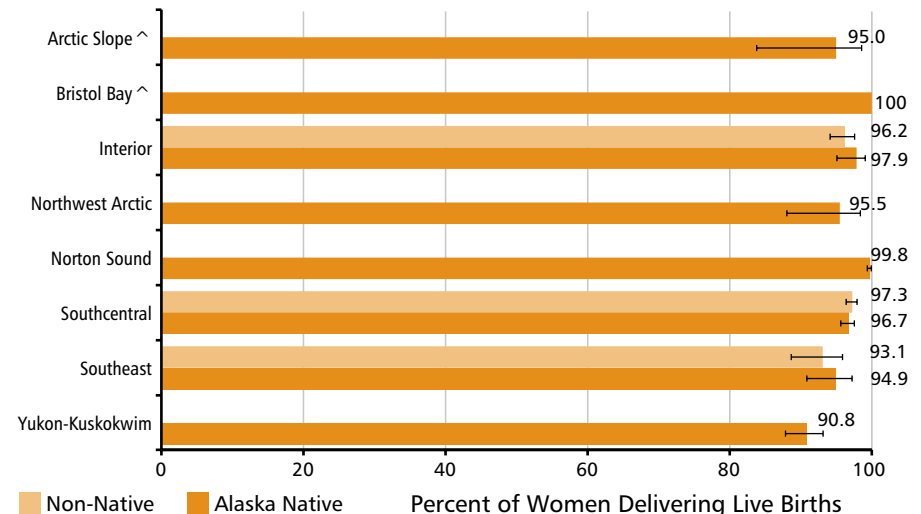


* Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

† Among women recently delivering a live birth whose new baby had not gone as many times as the mother wanted for a well-baby checkup (9.7% overall).

Well-baby Checkups by Alaska Native Status and Tribal Health Region, Alaska, 2004-2008

Data Source: Alaska PRAMS, State of Alaska, Division of Public Health.



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

Chapter References

Chapter 6: Infant Health

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Child Health



Health Care & Services

The American Academy of Pediatrics recommends that all children have a “family-centered medical home”. This is a place where a team of physicians and specialists provides preventive, acute, and chronic care from birth to adulthood (1). Urgent care, walk-in clinics and hospital emergency rooms are not considered medical homes. In rural Alaska, hospitals staffed by physicians provide medical care in hub communities. Community Health Aide/Practitioners staff smaller village health clinics and consult with physicians and specialists via telephone and video conferencing.

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides information on nutrition, financial assistance to purchase healthy foods, support for breastfeeding, and help finding medical and community services to low income families meeting program requirements (2). The Early Intervention and Infant Learning Program (EI/ILP) assures that services are available for infants and toddlers with special needs, including screening and evaluation, individualized family service plans, and physical, speech, and occupational therapy (3). Head Start promotes school readiness by providing a variety of services (4).

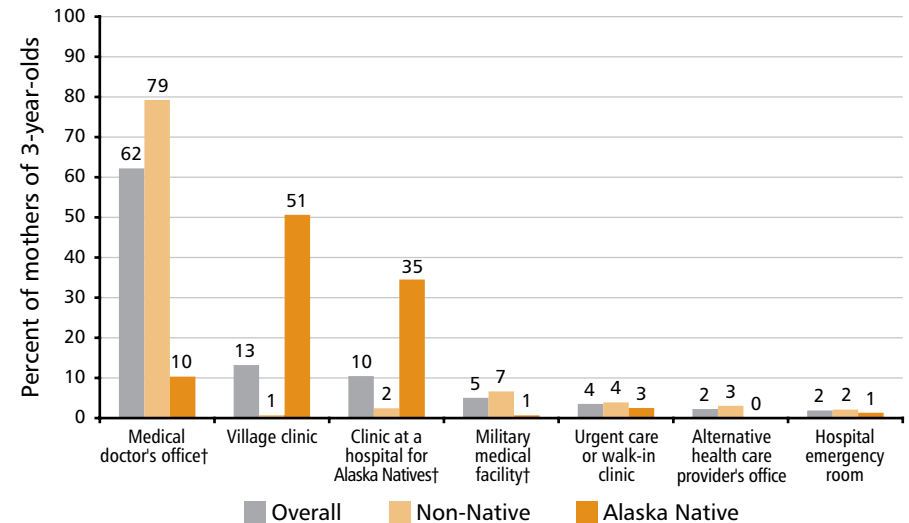
- Most mothers (77%) reported that their 3-year-old usually received care at a location that met the definition of a medical home. The usual place of care differed by Alaska Native status. Alaska Native mothers most often sought care at a village clinic, while non-Native mothers frequented medical doctor’s offices.
- Receiving services from WIC was common among children of Alaska Native mothers (85%) and non-Native mothers (51%).
- Children of Alaska Native mothers were more likely than children of non-Native mothers to have been enrolled in Head Start or Early Head Start (19% vs. 1%, respectively). In 2008, Early Head Start services were offered primarily by programs that serve Alaska Native children.

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Child Health

Place Where Mothers Usually Took Their Child for Medical Care When Their Child Was Sick, Alaska, 2008

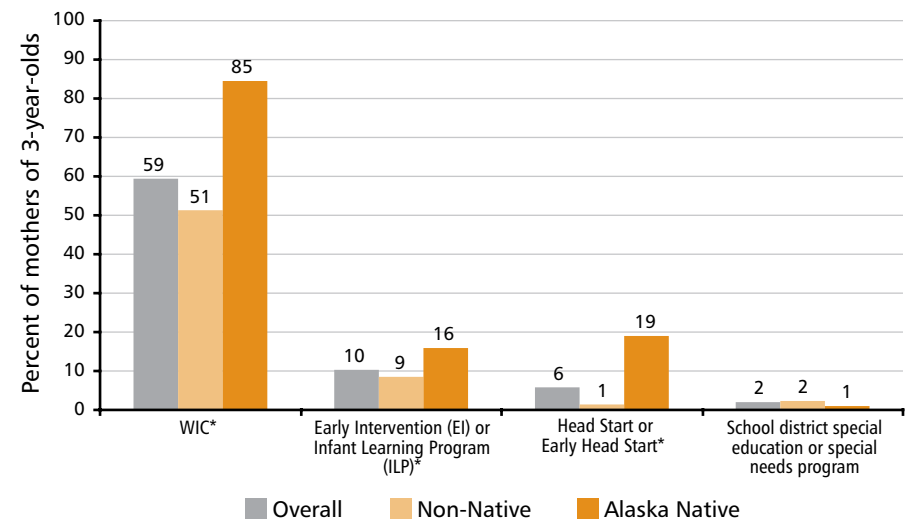
Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



†Location meets the definition of a medical home.

Percent Whose Child Was Ever Enrolled In or Received Services from Various Public Programs, by Program, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native (p < 0.05).

Health Care Providers & Specialists

Developmental screening is an assessment that physicians perform to find out if children are having problems developing skills that will be helpful when they start school. It is important to detect these problems early to allow for early treatment. In the United States, approximately 17% of all children have a developmental or behavioral disability; however, only 50% of these children are identified before they start school (5). Children who are identified often receive special services from hearing specialists, speech or language therapists, eye specialists, physical or occupational therapists, or behavioral or mental health specialists.

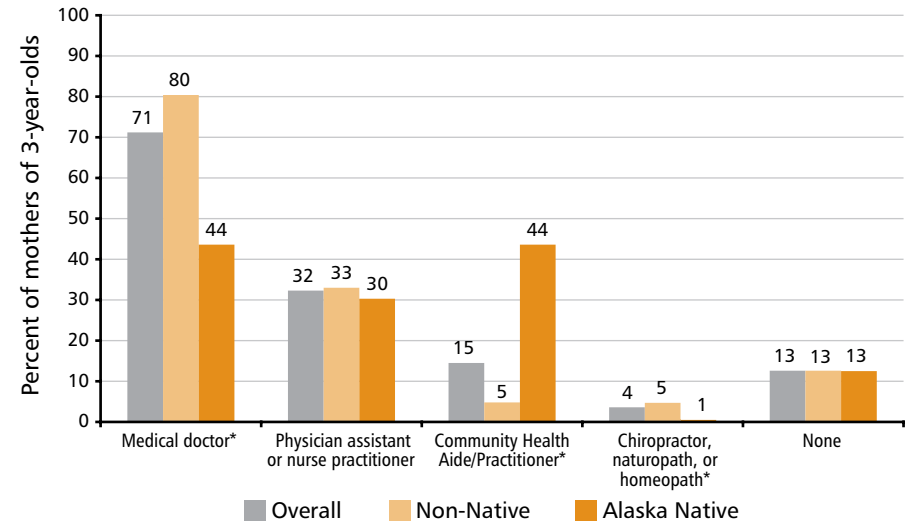
- CUBS asked mothers what type of provider their 3-year-old had seen during the 12 months before she completed the survey. The most common provider seen by children was a medical doctor (71%), followed by a physician assistant or nurse practitioner (32%). Children of non-Native mothers were most likely to see a medical doctor, while children of Alaska Native mothers were equally likely to see either a Community Health Aide/Practitioner or a medical doctor.
- Three-fourths (75%) of mothers of 3-year-olds reported that their child had a well-child check-up during the previous 12 months.
- Among the types of specialists asked about on the survey, a hearing specialist was most commonly reported by mothers as having ever provided care for their 3-year-old child.
- More Alaska Native mothers reported taking their children to see a hearing specialist compared to non-Native mothers, while non-Native mothers were more likely to report that their child received care from a physical or occupational therapist.

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Child Health

Percent Whose Child Received Care from Various Health Care Providers During the Previous 12 Months, by Type of Provider, Alaska, 2008

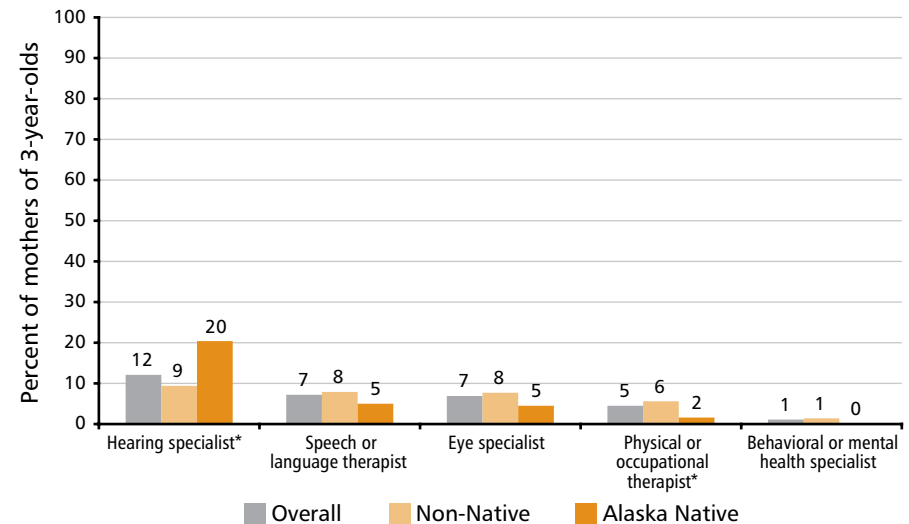
Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Percent Whose Child Ever Received Care from Various Health Care Specialists or Therapists, by Type of Specialist, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Health Conditions & Barriers to Care

CUBS asked mothers whether a health care provider had ever said her 3-year-old child had the following acute or chronic health conditions: ear infections requiring tubes; pneumonia treated with antibiotics; anemia; asthma; overweight or underweight; or tooth decay. These conditions could all affect the child's overall health later in life if timely and adequate care were not provided. Alaska Native children are eligible for health care services through the Alaska Native Tribal Health System.

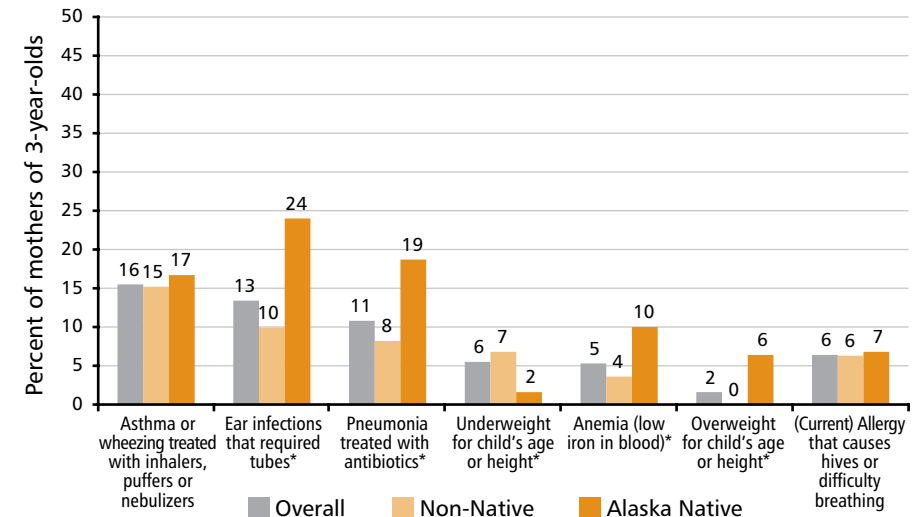
- Among all Alaskan mothers of 3-year-olds, the most common child health condition reported by mothers was asthma or wheezing treated with inhalers, puffers, or nebulizers (16%).
- The percentage of Alaska Native mothers who reported that a health care provider had ever said her child had a health condition was at least twice the percentage among non-Native mothers for several conditions, including ear infections, pneumonia, anemia, and being overweight for age or height. Reporting that a health care provider had said their child was underweight was more than three times as common among non-Native mothers.
- "I didn't have enough money or insurance to pay for it" was the most common barrier to getting health care when a child was sick, reported by 10% of all mothers. This barrier was twice as common among non-Native mothers compared to Alaska Native mothers (12% vs. 6%, respectively).

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Child Health

Percent Reporting a Health Care Provider Ever Said Their Child Had a Particular Health Condition, by Condition, Alaska, 2008

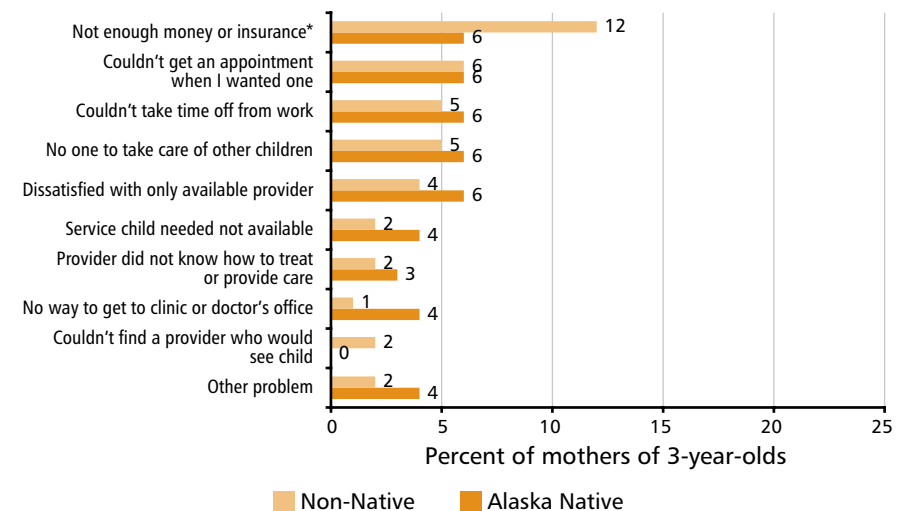
Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Percent Experiencing Problems Getting Health Care When Child Was Sick During the Previous 12 Months, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Immunizations

The Healthy People 2010 goal is 80% immunization coverage among children ages 19-35 months for the combined standard series of vaccines referred to as the 4:3:1:3:3:1 series: 4+DPT, 3+Polio, 1+MMR, 3+Hib, 3+HepB, and 1+varicella†. From July 2008 – June 2009, the proportion of children ages 19-35 months who had completed the 4:3:1:3:3:1 series was 73% for all U.S. children and 78% for American Indian/Alaska Natives nationwide. The immunization coverage proportion for children of all races in Alaska during the same timeframe was 64% (6).

- Most Alaskan mothers (74%) said they believed it is important for their 3-year-old to get all shots according to the schedule set by their doctors; however 21% indicated that it was important to get some shots according to the schedule, but they can decide to delay or refuse others, and 4% indicated their child should never get any shots.
- Beliefs about shots differed by Alaska Native status. A higher percentage of non-Native compared to Alaska Native mothers believed that they can decide to delay or refuse some shots, and that their child should never get any shots.
- Among all mothers, 29% reported that friends or family had advised them not to get shots for their child; 22% indicated they had received this advice from a form of news media (paper, magazine, radio, or television); and 20% received this advice from the Internet.
- Sixty percent (60%) of mothers who received advice not to get childhood shots from a medical doctor, physician assistant or nurse practitioner indicated that they followed the advice, while 43% of mothers who received this advice from a chiropractor, naturopath or homeopath followed the advice. Mothers were less likely to follow advice from other sources.

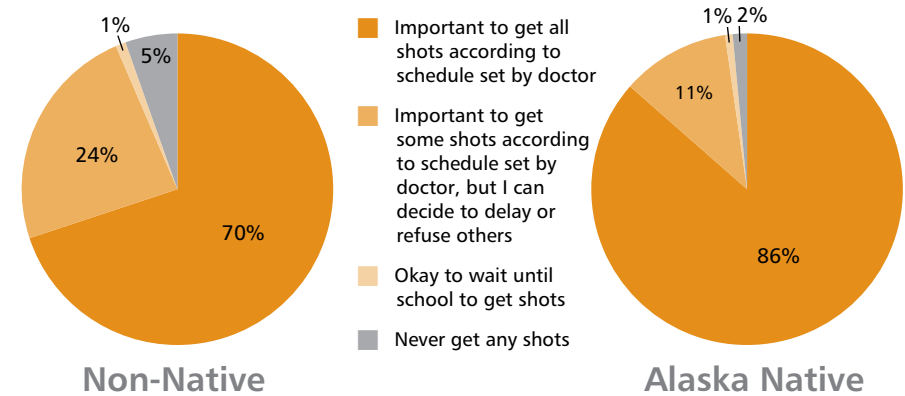
Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

†DPT: Diphtheria, pertussis, tetanus; MMR: Measles, mumps, rubella; Hib: Haemophilus influenza; HepB: Hepatitis B

Child Health

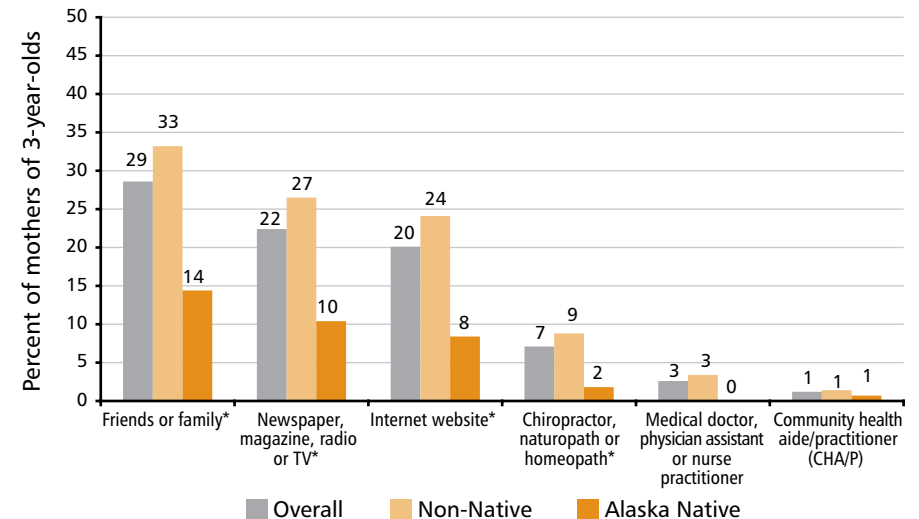
Beliefs About Childhood Shots Among Mothers of 3-year-olds, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



Percent Advised by Various Sources Not To Get Childhood Shots, by Source of Advice, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native (p < 0.05).

Fruit and vegetable intake may protect against increased weight gain in children, while diets high in energy-dense foods, such as sweets and fried potatoes, are associated with higher BMI. The 2005 Dietary Guidelines for Americans (7) recommends at least 5 servings of fruits and vegetables each day for Americans over two years of age. Fruits and vegetables are promoted for the prevention of childhood obesity because of their high water and fiber content, low fat content and low energy density, all effectively reducing caloric intake. High energy-dense foods provide more calories in a smaller serving amount than low energy-dense foods and are often also high in refined grains, added sugar and solid fats.

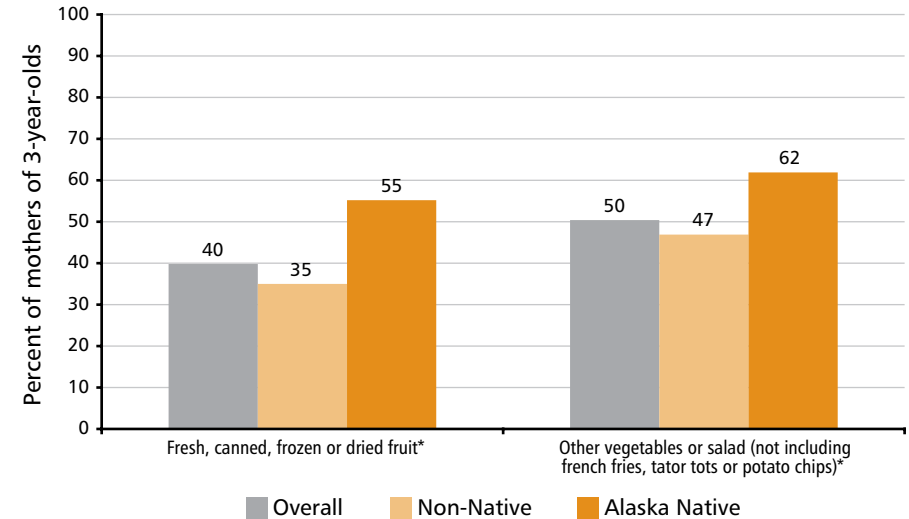
- Overall, 40% of Alaskan mothers of 3-year-olds indicated that their child ate fresh, canned, frozen or dried fruit only one time or not at all on the previous day, while 7% said their child ate fruit more than three times. Among Alaska Native mothers, 19% reported that their 3-year-old had no fruit on the previous day, compared to 11% of non-Native mothers.
- Half of all mothers reported that their 3-year-old ate vegetables or salad one time or not at all on the previous day, while 2% said their child had vegetables more than three times. The percent of Alaska Native mothers reporting their child had no vegetables on the previous day was more than twice as high as the percent of non-Native mothers (24% vs. 10%, respectively).
- Overall, 43% of all mothers reported their child ate French fries, tator tots or potato chips on the previous day, while 75% indicated that their child had candy, cookies, or others sweets. Consumption of fried potatoes, but not sweets, differed by Alaska Native status.

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Introductory paragraph adapted from *Childhood Obesity in Alaska*, pp 10-12 (8).

Percent Whose Child Ate Fruits and Vegetables One Time or Less on the Previous Day, by Food Type, Alaska, 2008

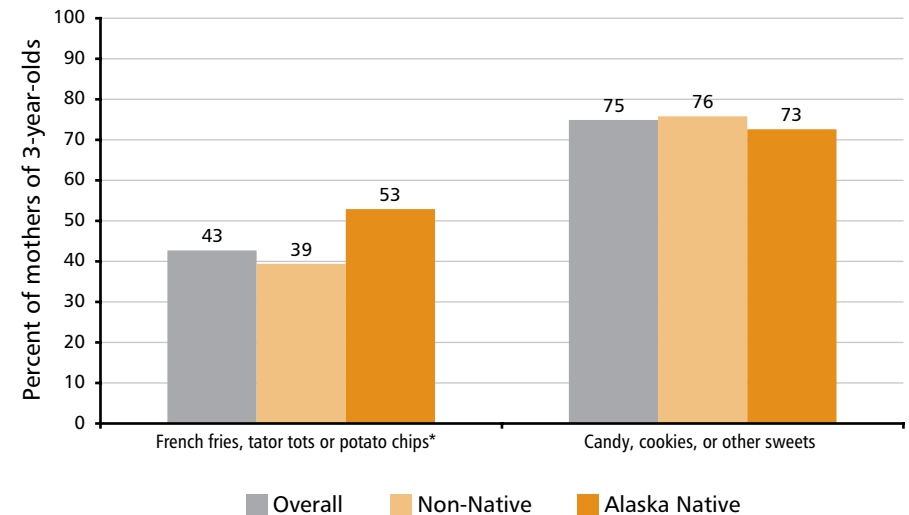
Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native (p < 0.05).

Percent Whose Child Ate Solid Fats and Added Sugars One or More Times on the Previous Day, by Food Type, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native (p < 0.05).

Sugar-sweetened beverages (including soft drinks, energy drinks, and fruit drinks) are a significant source of added sugars and calories in the diet of many Americans. Evidence supports a positive association between drinking sugar-sweetened beverages and body fat in children. Sweetened drinks also contribute to tooth decay. Children should drink whole milk until age 2 and then reduce fat intake. The 2005 Dietary Guidelines for Americans (7) recommends 2 cups of fat-free or low-fat (1%) milk, or equivalent milk products, every day for children ages 2 to 8 years. Consumption of 100% fruit juice may contribute to overweight and obesity because it is more calorie-dense and has less fiber than whole fruits. The American Academy of Pediatrics recommends all sweetened beverages, including naturally sweet beverages such as fruit juice, should be limited to less than one cup per day for children ages 1 to 6 years.

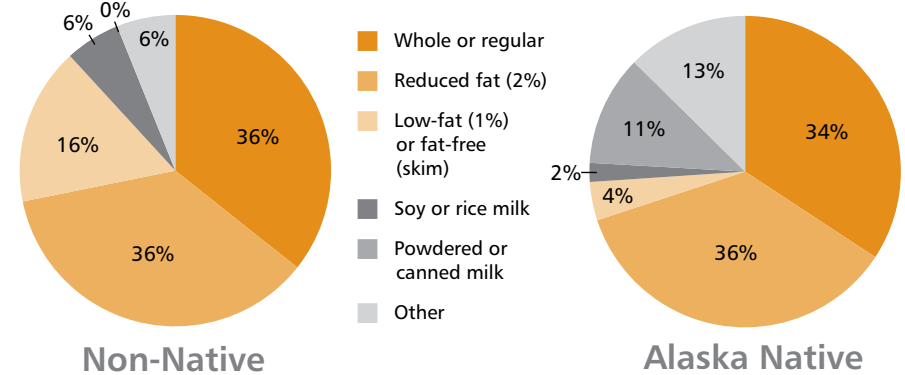
- Overall, 13% of mothers indicated that their 3-year-old usually drinks low-fat or fat-free milk, while 71% reported whole, regular, or reduced fat milk. The usual type of milk differed by Alaska Native status.
- About two-thirds (68%) of all mothers said their child drank 2 or more cups of milk on the previous day – 62% of Alaska Native mothers and 70% of non-Native mothers.
- Most 3-year-olds drank some 100% fruit juice on the previous day. Soda and sweetened drinks were less common, with 89% of mothers reporting their child had none or less than one cup of soda, and 74% reporting none or less than one cup of sweetened drinks. However, overall 67% of mothers said their child had one cup or more of at least one type of sweetened beverage on the previous day.

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Introductory paragraph adapted from *Childhood Obesity in Alaska*, pp 10-12 (8).

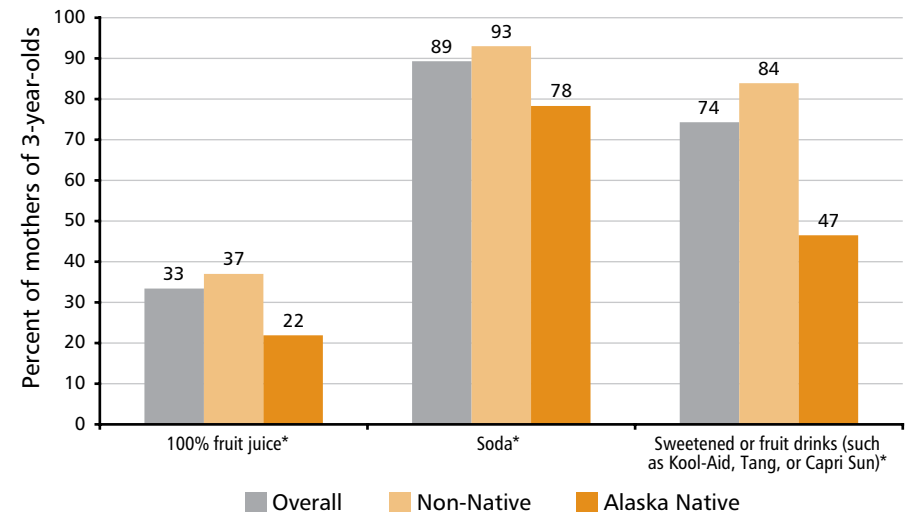
Usual Type of Milk Drink by Child, Reported by Mothers of 3-year-olds, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



Percent Whose Child Drank None or Less Than One Cup of Various Sweetened Beverages on Previous Day, by Drink Type, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Dental Care

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 (9). The current recommendation for the first dental visit is within six months of eruption of the first tooth or no later than age one (10). The tribal Dental Health Aide Program has recently increased access to some dental services in rural areas of the state. For children ages 2 to 5 years, dentists recommend that parents brush or help their child brush their teeth because young children do not have the ability to brush their teeth effectively (11).

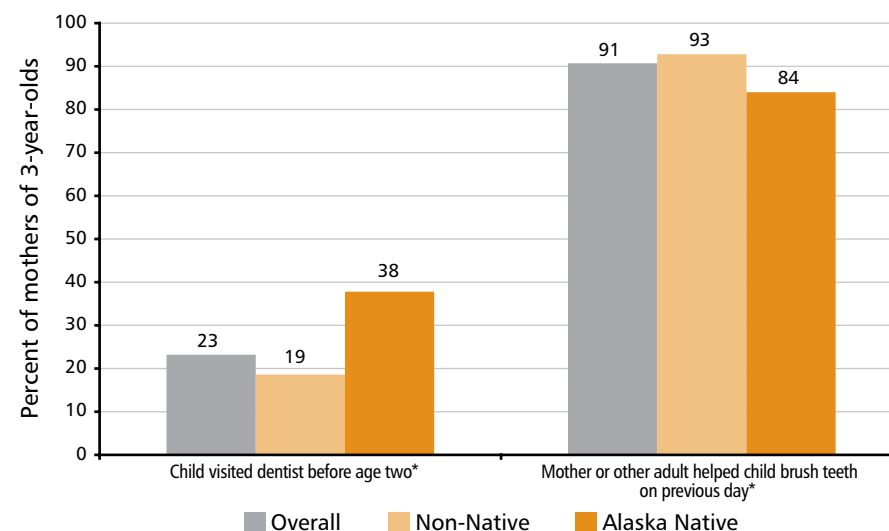
- Most children were not meeting the recommendation to visit a dentist by age one; only 23% of mothers said that their child had seen a dentist before their second birthday. Alaska Native mothers were twice as likely to report that their 3-year-old had visited a dentist before their second birthday compared to non-Natives (38% vs. 19%, respectively).
- Almost all (91%) mothers reported that they or another adult helped their 3-year-old brush their teeth on the previous day.
- Overall, 36% of mothers said their child had received a dental check-up or cleaning. This percentage was similar for Alaska Native and non-Native mothers. The percent of Alaska Native mothers reporting that their child had a tooth pulled or a dental filling, cap or crown, or sealant treatment, was significantly higher compared to non-Native mothers.
- Tooth decay or cavities were more common among children of Alaska Native mothers, with 40% of Alaska Native mothers reporting that a health care provider had ever said their 3-year-old had the condition as compared to 5% of non-Native mothers.

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Child Health

Oral Health Care of Child, by Type of Care, Alaska, 2008

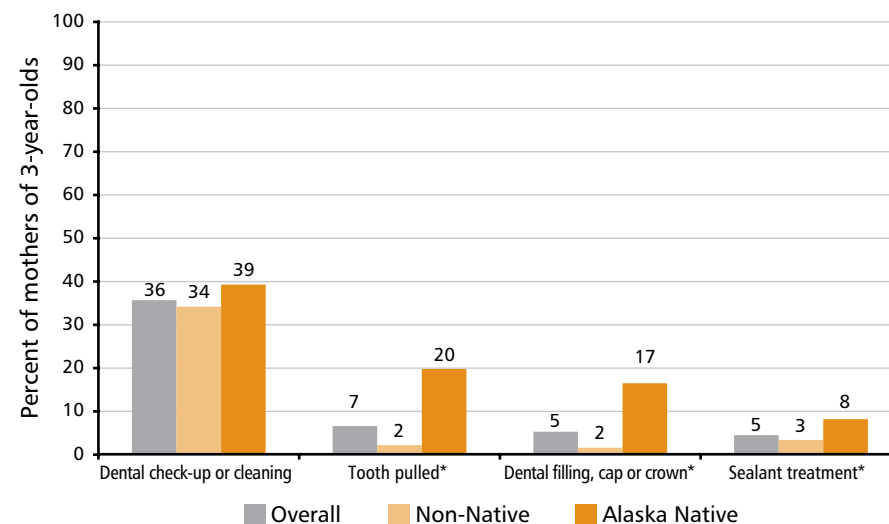
Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Percent Whose Child Has Received Various Types of Dental Care, by Treatment Type, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Chapter References

Chapter 7: Child Health

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Home Environment

Hazards in a child's living environment can contribute to unintentional injuries. The top three causes of non-fatal hospitalized injuries in Alaska during 2002-2006 among children ages 1-4 years were falls, poisoning, and burns (1). Hazards in the living environment may also contribute to infections and other causes of illness. For example, a lack of modern water service has been associated with high rates of pediatric lower respiratory infection (2). The Alaska Native Tribal Health Consortium estimates that 70 out of 216 rural communities (32%) do not have in-home piped water (3).

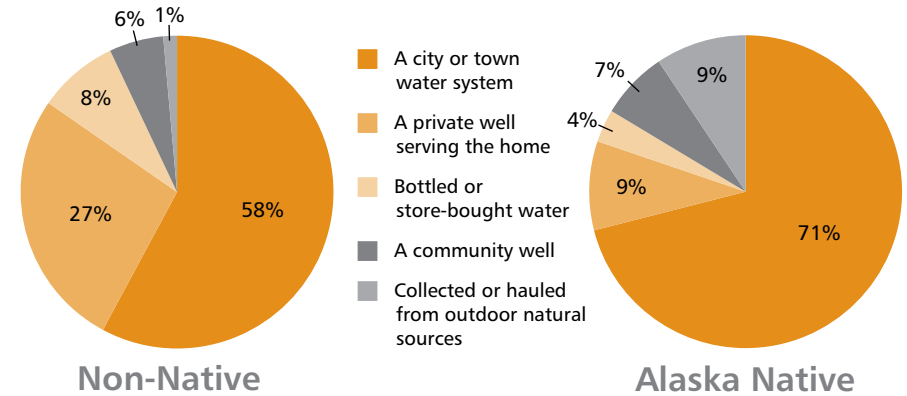
- Among all mothers of 3-year-olds in Alaska, 61% use a city or town water system as their main water source for drinking and cooking in the home. The distribution of the main water source differed between Alaska Native and non-Native mothers.
- Almost all non-Native mothers (99%) reported having a flush toilet in their home, while only 80% of Alaska Native mothers had a flush toilet.
- Overall, assessed home health and safety measures were common. However, the presence of a working carbon monoxide detector in the home was reported by just 74% of mothers. This differed significantly by Alaska Native status.
- CUBS asked about the presence of mold or mildew larger than the size of a dollar bill on any surface inside the home (not including mildew on bathroom tiles or mold on food). In 2008, 9% of all Alaska mothers of 3-year-olds responded "yes" to this question. Alaska Native mothers were more likely to report mold or mildew compared to non-Native mothers (17% vs. 7%, respectively). Indoor exposure to mold has been linked to upper respiratory tract symptoms (4).

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Childhood Home Environment

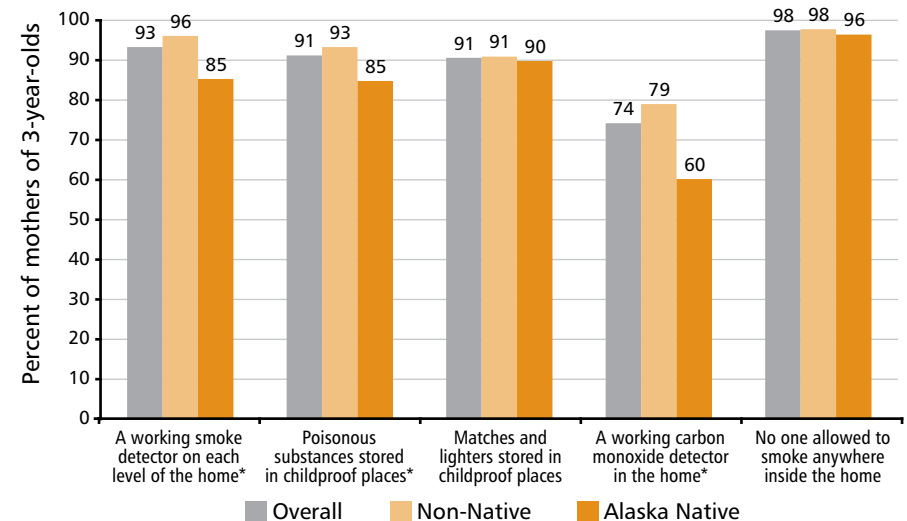
Main Source of Water for Drinking and Cooking in the Home Among Mothers of 3-year-olds, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



Percent Reporting Various Home Health and Safety Measures, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Reading & Television

Reading books and watching television are two common activities for children that can have positive and negative effects on future behaviors, educational attainment, and health. Studies have shown that the number of children's books in a home can be a measure of the home literacy environment and predict a child's future literacy skills (5). The amount of time children spend watching television has been associated with later outcomes such as obesity and violent behavior (5,6). However, research suggests that some negative impacts of television can be mitigated if the parent watches with the child and discusses television content (6).

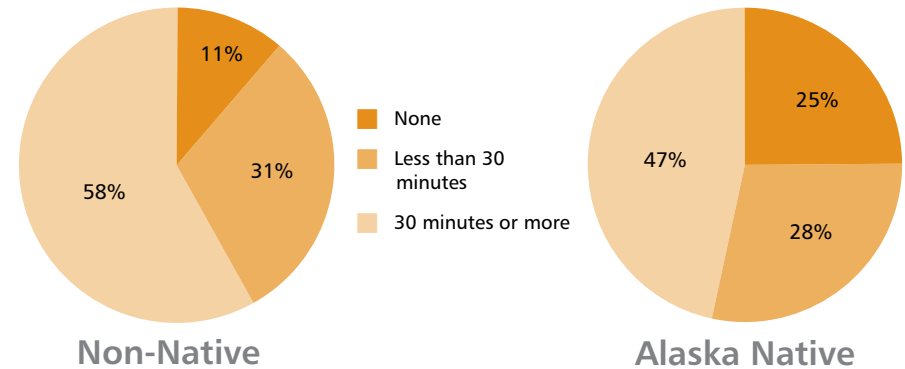
- The majority (85%) of mothers of 3-year-olds reported that they or someone else read aloud to their child one-on-one or in a family group on the previous day. Time spent reading differed by Alaska Native status. Among Alaska Native mothers, 47% read aloud to their child for 30 minutes or more while 28% read aloud for less than 30 minutes. Among non-Native mothers, 58% read aloud for 30 minutes or more and 31% read aloud for less than 30 minutes.
- Overall, 71% of mothers of 3-year-olds reported having more than 25 children's books, including library books, in their home. Less than half (47%) of Alaska Native mothers reported having more than 25 children's books while 5% reported having none. Among non-Native mothers, 79% reported having more than 25 children's books while no women reported having none.
- The majority (89%) of mothers of 3-year-olds said their child watched some television, videos or DVDs on the previous day. The amount of time reported differed by Alaska Native status.
- Overall, among Alaska mothers whose child watched television on the previous day, 77% reported watching with their child part of the time while 17% watched with their child the whole time. Alaska Native and non-Native mothers had similar responses to this question.

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Childhood Home Environment

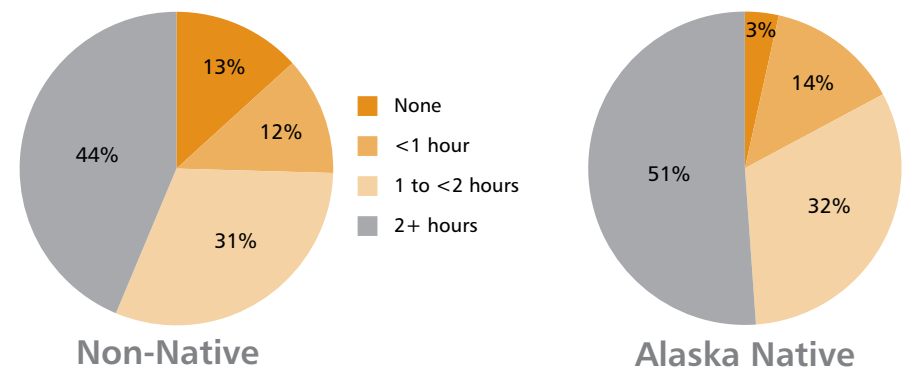
Time Child Was Read Aloud To on Previous Day Reported by Mothers of 3-year-olds, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



Time Child Spent Watching Television, Videos, or DVDs on Previous Day Reported by Mothers of 3-year-olds, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



Parenting

Knowing the most appropriate and effective ways to discipline a young child who is misbehaving can be difficult for many parents. Some actions that experts recommend include providing a distraction, suggesting a break, offering alternatives, and discussing what happened (7). Many experts oppose any form of physical punishment, and some studies indicate that spanking can lead to later aggressive behavior by a child (8). However, other research shows that among children older than two years, non-abusive spanking may have some beneficial effects (9). There is no law against corporal discipline by parents in Alaska; however, it may be reported or investigated as abuse if a mark or bruise is left.

Paternal involvement has a positive influence on a child's cognitive and behavioral development (10), while not having a father present may reflect family instability or other social risk factors in the mother's or child's life that could increase risk of future negative outcomes for the child.

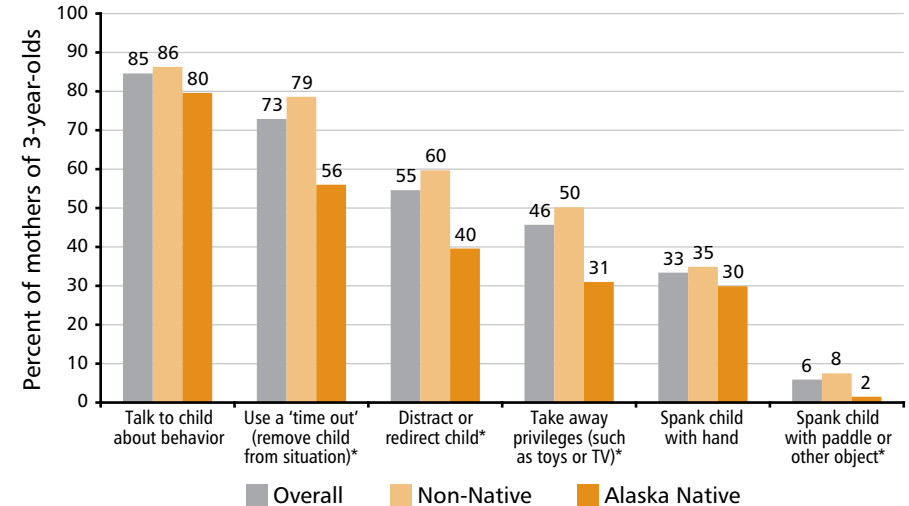
- Among all discipline actions asked about on CUBS, the most common reported by both Alaska Native and non-Native mothers was talking to the child about his or her behavior. Spanking the child with a paddle or other object was least common.
- Compared with non-Native mothers, when their child was misbehaving, Alaska Native mothers were less likely to report using a "time out," distracting or redirecting their child, taking away privileges, and spanking their child with a paddle or other object. A similar proportion, about one-third, of Alaska Native and non-Native mothers reported spanking their child with a hand.
- Four percent (4%) of mothers reported that their child spent no days with their father or other adult male in the past week. The number of days spent with fathers differed by Alaska Native status. Eleven percent of Alaska Native mothers reported "no days," while 2% of non-Native mothers said "no days."

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Childhood Home Environment

Discipline Actions Taken by Parents When Child Was Misbehaving, by Action, Alaska, 2008

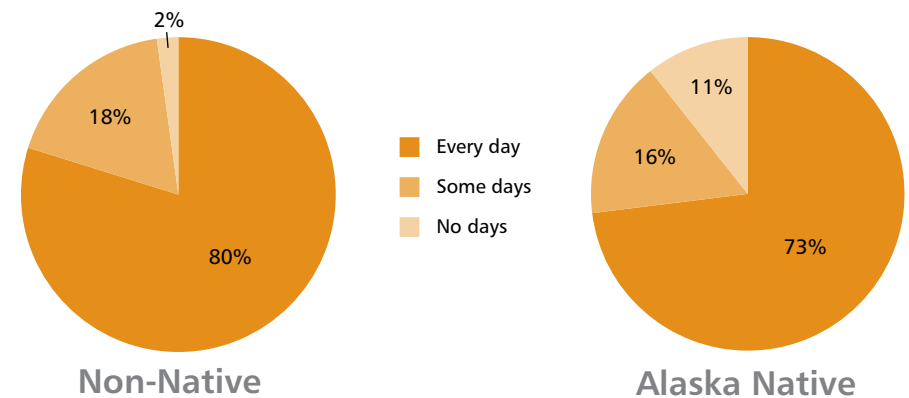
Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Days Child Spent With Father or Other Adult Male in Past Week Reported by Mothers of 3-year-olds, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



Childhood Assets

Child development experts have identified 40 key factors, or “assets,” that have a powerful influence on children’s lives (11). The more assets children possess, the more likely they will have positive social skills, do better in school, and avoid unhealthy behaviors as they grow and mature. CUBS asked questions about two assets related to support for the child: having a caring relationship with an adult other than a parent and knowing a neighbor’s name. A bedtime routine is not one of the 40 assets, but experts believe a regular bedtime helps children sleep better, and daily routines may reflect consistency in the child’s life and a less stressful environment (12). Alternatively, experiencing stressful events during childhood, particularly family instability and exposure to abuse and neglect, is associated with poor quality of life or health for adolescents and adults (13).

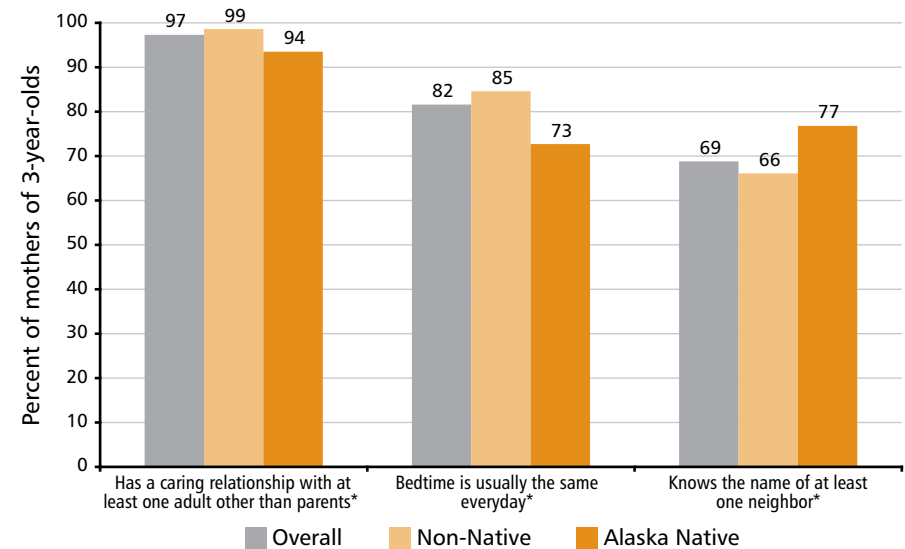
- Almost all (97%) Alaska mothers of 3-year-olds reported that their child had a caring relationship with at least one adult other than a parent, while 69% said their child knows the name of at least one neighbor. The former asset was more common among non-Native mothers and the latter was more common among Alaska Native mothers.
- A greater percentage of non-Native than Alaska Native mothers reported that their 3-year-old had a bedtime that was usually the same every day.
- Compared to non-Native mothers, about twice as many Alaska Native mothers reported that their 3-year-old had experienced being away from a parent for more than one month or a death in the immediate family; eight times as many Alaska Native mothers reported their child had witnessed violence or physical abuse.

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Childhood Home Environment

Prevalence of Childhood Assets, by Asset, Alaska, 2008

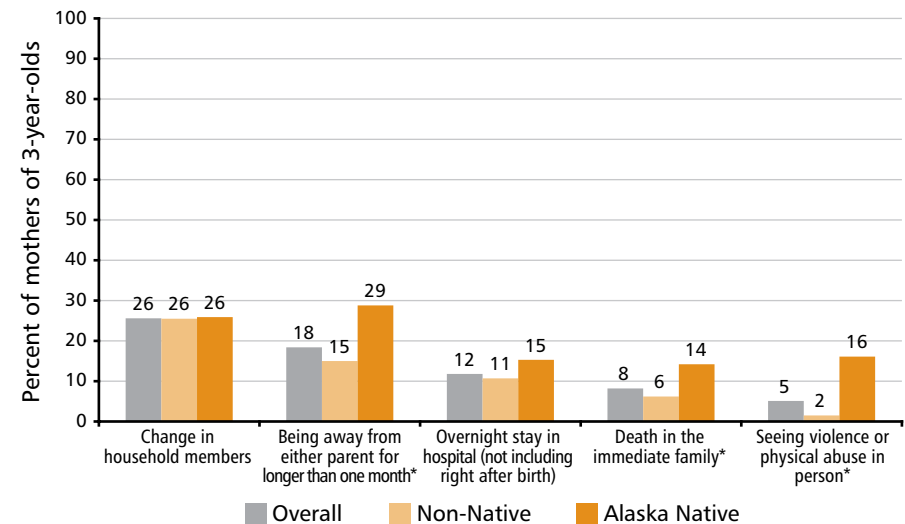
Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Prevalence of Stressful Events Ever Experienced by Child, by Event, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



*Statistically significant difference between Alaska Native and Non-Native ($p < 0.05$).

Childcare

CUBS defined childcare as any kind of regular arrangement where someone other than the parents or legal guardians takes care of the 3-year-old child, including preschool. Quality accessible childcare for young children is beneficial for families and communities (14). CUBS asked mothers whether they were currently using any childcare for their 3-year-old, as well as whether their regular childcare provider was licensed, and if, during the past 30 days, there was a time for a week or longer when she had tried but could not find childcare for her child.

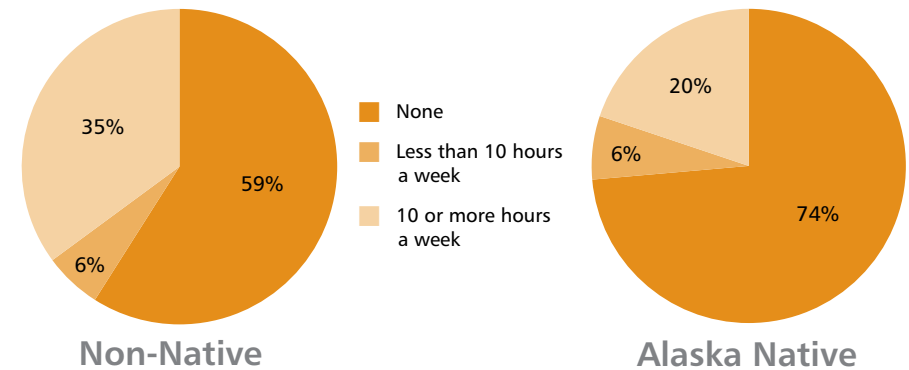
- Among all mothers, 63% reported using no childcare for their 3-year-old. Almost one-third (31%) used 10 hours or more a week, while 6% used less than 10 hours a week. Compared to non-Native mothers, a smaller percentage of Alaska Native mothers reported using 10 hours or more a week and a greater percentage reported not using any.
- Among mothers currently using childcare, 38% reported using a childcare center or preschool, 37% reported childcare in the home of the caregiver, and 18% reported in-home care. Among the 8% who reported other types of childcare, all write-in responses described care by relatives other than the parents. Alaska Native and non-Native mothers had similar responses regarding type of childcare.
- Sixty-two percent (62%) of all mothers currently using childcare indicated that their regular provider was licensed, including 39% of Alaska Native mothers and 68% of non-Native mothers.
- Overall, 7% of mothers said that they had problems finding childcare for their child during the past 30 days. The most common reason, reported by 41% of the mothers who had problems, was that they couldn't find the quality of childcare they wanted. One-third (33%) couldn't afford any childcare and 28% couldn't find childcare with the hours that fit their needs.

Data Source: Alaska Childhood Understanding Behaviors Survey (CUBS), State of Alaska, Division of Public Health.

Childhood Home Environment

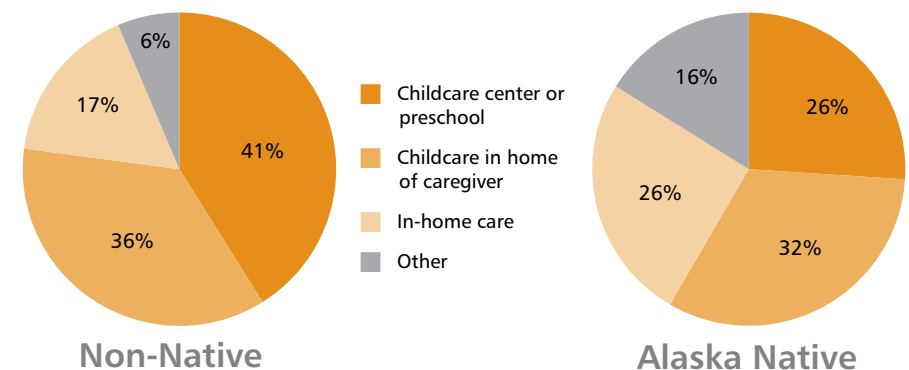
Weekly Hours of Regular Childcare Used Among Mothers of 3-year-olds, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



Regular Childcare Arrangement Among Mothers of 3-year-olds Currently Using Childcare, Alaska, 2008

Data Source: Alaska CUBS, State of Alaska, Division of Public Health.



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Appendix



Alaska Native Status: In this data book, “Alaska Native” refers to Alaska Native and American Indian people who reside in Alaska. Non-Native refers to anyone not identified as an Alaska Native person whose race is known. Persons whose race is unknown or missing are excluded from analyses where race is included. Alaska Native status in chapters 7 and 8 (CUBS data) does not include American Indians, however the effect of this omission on the data findings is negligible.

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.

| | |
|---------------|-----------------------------------|
| Underweight | BMI < 19.8 kg/m ² |
| Normal weight | 19.8 ≤ BMI < 25 kg/m ² |
| Overweight | 25 ≤ BMI < 30 kg/m ² |
| Obese | BMI ≥ 30 kg/m ² |

Child: As used in Chapters 7 and 8, child refers to the respondent’s 3-year-old child who was born in 2005. The average child age at the time women responded to the CUBS survey in 2008 was 36 months (range 35-40 months).

Childhood Assets: Positive experiences and qualities that influence choices young people make and help them become caring, responsible, successful adults.

Controlling Partner: Husband or partner who threatens the woman, limits activities against the woman’s will, or makes the woman feel unsafe in any other way.

Healthy People 2010: Healthy People is a national initiative that establishes benchmarks and monitors progress over time in order to encourage collaborations across sectors, guide individuals toward making informed health decisions, and measure the impact of prevention activities.

Iqmik: A mixture of ash and tobacco, also known as blackbull.

Physical Abuse: Pushing, hitting, slapping, kicking, choking or any other way of physically hurting someone.

Postpartum: As used in this data book, postpartum refers to the period of time from birth up to when the woman responded to the PRAMS survey. This is four months, on average.

Prenatal: Refers to the entire period of pregnancy, unless otherwise indicated. For some indicators from PRAMS, the prenatal period only includes the last 3 months of pregnancy.

Prenatal Care: Health care services provided to a woman between conception and delivery that are pregnancy-related. For PRAMS, this is defined to include “visits to a doctor, nurse, or other health care worker before your baby was born to get checkups and advice about pregnancy”.

Solid Fats and Added Sugars: Solid fats are fats that are solid at room temperature, like butter, beef fat, and shortening. Some solid fats are found naturally in foods. They can also be added when foods are processed or prepared. Added sugars are sugars and syrups that are added when foods or beverages are processed or prepared. Solid fats and added sugars add calories to food, but few or no nutrients.

Spit Tobacco: Spit tobacco, chew, or snuff that was not a mixture of ash and tobacco (for example, Copenhagen or other store-bought brand).

Tribal Health Regions: These regions roughly correspond to the areas served by individual tribal health organizations. Twelve regions have been collapsed into eight for this data book. The Southcentral region includes communities served by multiple health organizations. This region includes the Municipality of Anchorage/Matanuska-Susitna Valley, Kenai Peninsula, Aleutians and Pribilofs, Kodiak Area, and Copper River/Prince William Sound regions. (For more information go to <http://www.anthc.org/chs/epicenter/upload/ANHSR.pdf>, Appendix A). Data are analyzed by Alaska Native status by tribal health region, however, data for non-Native women are shown only for the three tribal health regions with the majority of the non-Native population (Southcentral, Interior, and Southeast). See also Chapter 1 Population Characteristics.

Well-baby Checkup: A regular health visit for the baby usually at 2, 4, or 6 months of age.

Chapter 2: Reproductive Health

Crude Birth Rate

Crude birth rate refers to the number of live births during a specified time period per total number of people in the population (expressed as a rate per 1,000 people in the population).

Numerator: Number of live births.

Denominator: Total number of people in the population.

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor, 2000-2008.

Teen Birth Rate (ages 15-19 years)

Teenage birth rate refers to the number of live births to females ages 15-19 years per the total population of women ages 15-19 years (expressed as a rate per 1,000 women ages 15-19 years).

Numerator: Number of live births to females ages 15-19 years.

Denominator: Total number of females ages 15-19 years.

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor, 2000-2008.

Fertility Rate (ages 15-44 years)

Fertility rate refers to the number of births to females of childbearing age (ages 15-44 years) per 1,000 females in that age group (expressed as a rate per 1,000 women ages 15-44 years).

Numerator: Number of live births to females ages 15-44 years.

Denominator: Total number of females ages 15-44 years.

Data Sources: Alaska Bureau of Vital Statistics, Alaska Department of Labor, 2000-2008.

Postpartum Birth Control Use

Percent of women delivering live births who indicated that they were doing something “now” to keep from getting pregnant. Methods defined for the respondent for birth years 2000-2003 were 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]. Methods defined for the respondent for birth years 2004-2008 were not having sex at certain times [rhythm] or withdrawal, and using birth control methods such as the pill, condoms, cervical ring, IUD, having their tubes tied, or their partner having a vasectomy. [Note: “Now” is four months postpartum on average.]

Numerator: Number of women who indicated that they were doing something now to keep from getting pregnant.

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

Data Source: Alaska PRAMS, 2000-2008.

Live Births Despite Use of Birth Control

Percent of women delivering live births who indicated that they were not trying to get

pregnant and they were doing something to keep from getting pregnant when they got pregnant with their new baby. [See Postpartum Birth Control Use for definitions of birth control.]

Numerator: Number of women who indicated that they were not trying to get pregnant and 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 and were not trying to get pregnant at the time they got pregnant.

Data Source: Alaska PRAMS, 2000-2008.

Unintended Pregnancy

Percent of women delivering live births who had a mistimed or unwanted pregnancy.

Numerator: Number of women who indicated, when asked during the postpartum period, that just before getting pregnant, they wanted to be pregnant either later or they did not want to be pregnant then or at any time in the future.

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

Data Source: Alaska PRAMS, 2000-2008.

Chapter 3: Prenatal Health

First Trimester Prenatal Care

The percent of women receiving prenatal care in the first trimester (the first 12 weeks) of their pregnancy.

Numerator: Number of women receiving prenatal care in the first trimester.

Denominator: Total number of live births.

Data Source: Alaska Bureau of Vital Statistics, 2000-2008.

Problems Getting Prenatal Care

The percent of women delivering live births who indicated they had problem(s) listed on the survey getting prenatal care during their most recent pregnancy. The respondent was given the definition “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.”

Numerator: Number of women who indicated they had problem(s) getting prenatal care during their most recent pregnancy and wanted prenatal care.

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

Data Source: Alaska PRAMS, 2007-2008.

Prenatal Care Counseling

The percent of women delivering live births who indicated that a doctor, nurse, or other health care worker talked with them about topics listed on the survey during any of their prenatal care visits. Only discussions were counted, not reading materials or videos.

Numerator: Number of women who indicated that a doctor, nurse, or other health care worker talked with them about a particular topic during any of their prenatal care visits.

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

Data Source: Alaska PRAMS, 2007-2008.

HIV Test During Pregnancy

Percent of women delivering live births who indicated they had a test for HIV (the virus that causes AIDS) at any time during their most recent pregnancy.

Numerator: Number of women who indicated they had a test for HIV (the virus that causes AIDS) at any time during their most recent pregnancy.

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

Data Source: Alaska PRAMS, 2004-2008.

Knowledge of Folic Acid Benefits

Percent of women delivering live births 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 PRAMS, 2000-2008.

Multivitamin or Prenatal Vitamin Use Before Pregnancy

Percent of women delivering live births who indicated they took a multivitamin or prenatal vitamin during the month before they got pregnant with their new baby. The respondent was given the definition "These are pills that contain many different vitamins and minerals."

Numerator: Number of women who indicated they took a multivitamin or prenatal vitamin (either not at all, 1 to 3 times a week, 4 to 6 times a week, or every day of the week) during the month before they got pregnant with their new baby.

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

Data Source: Alaska PRAMS, 2007-2008.

Prenatal WIC Participation

Percent of women delivering live births 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 PRAMS, 2000-2008.

Chapter 4: Prenatal Substance Use

Cigarettes

Percent of women delivering live births who smoked any cigarettes during the last 3 months of their pregnancy. The respondent was given the definition "A pack has 20 cigarettes."

Numerator: Number of women who smoked any cigarettes during the last 3 months of their pregnancy.

Denominator: Total number of Alaska-resident women who delivered a live-born infant and had smoked at least 100 cigarettes in the past 2 years.

Data Source: Alaska PRAMS, 2000-2008.

Spit Tobacco or Iqmik Use

Percent of women delivering live births who used spit tobacco, chew or snuff or iqmik during pregnancy. Iqmik defined as a "mixture of ash and tobacco, sometimes known as iq'mik or blackbull".

Numerator: Number of women who used spit tobacco or iqmik during pregnancy.

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

Data Source: Alaska PRAMS, 2004-2008.

Marijuana

Percent of women delivering live births who used marijuana or hash during pregnancy.

Numerator: Number of women who used marijuana or hash during their most recent pregnancy.

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

Data Source: Alaska PRAMS, 2000-2008.

Alcohol (Any Use)

Percent of women delivering live births who consumed any alcoholic drinks during the last 3 months of their pregnancy. The respondent was given the definition of "A drink is 1 glass of wine, wine cooler, can or bottle of beer, shot of liquor, or mixed drink."

Numerator: Number of women who drank any alcoholic drinks during the last 3 months of their pregnancy. (Includes women who indicated "Less than 1 drink a week" in an average week.)

Denominator: Total number of Alaska-resident women who delivered a live-born infant and had any alcoholic drinks in the past 2 years.

Data Source: Alaska PRAMS, 2000-2008.

Alcohol (Binge)

Percent of women delivering live births who consumed 5 or more alcoholic drinks in one sitting during the last 3 months of their pregnancy.

Numerator: Number of women who drank 5 alcoholic drinks or more in one sitting at least one time during the last 3 months of their pregnancy.

Denominator: Total number of Alaska-resident women who delivered a live-born infant and had any alcoholic drinks in the past 2 years.

Data Source: Alaska PRAMS, 2004-2008.

Chapter 5: Maternal Health

Pre-pregnancy Overweight or Obesity

Percent of women delivering live births whose pre-pregnancy body mass index was at least 25 kg/m². [Note: Calculated from self-reports made postpartum of weight and height just before pregnancy.]

Numerator: Number of women whose self-reported 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 PRAMS, 2000-2008.

Symptoms of Maternal Depression

Percent of women delivering live births who indicated since delivery of their infant that they had symptoms of maternal depression.

Numerator: Number of women who answered always or often to “Since your new baby was born how often have you felt down depressed or hopeless” or “...how often have you had little interest or little pleasure in doing things” or “sometimes” to both questions.

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

Data Source: Alaska PRAMS, 2004-2008.

Life Stressors

Percent of women delivering live births who indicated that they experienced a life stressor listed on the survey during the 12 months before their new baby was born.

Numerator: Number of women who indicated they experienced a life stressor listed on the survey during the 12 months before their new baby was born.

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

Data Source: Alaska PRAMS, 2000-2008.

Physical Abuse by Husband or Partner During the 12 Months Before Pregnancy

Percent of women delivering live births who indicated that their husband or partner physically abused them during the 12 months before pregnancy.

Numerator: Number of women who indicated that their husband or partner pushed, hit, slapped, kicked, choked, or otherwise physically hurt them during the 12 months before pregnancy.

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

Data Source: Alaska PRAMS, 2000-2008.

Prenatal Physical Abuse by Husband or Partner

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

Numerator: Number of women who indicated that their husband or partner pushed, hit, slapped, kicked, choked, or otherwise physically hurt them during pregnancy.

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

Data Source: Alaska PRAMS, 2000-2008.

Prenatal Oral Health Issues

Percent of women delivering live births who indicated topic listed on the survey regarding care of teeth during pregnancy.

Numerator: Number of women who indicated topic listed on the survey regarding care of teeth during pregnancy.

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

Data Source: Alaska PRAMS, 2007-2008.

Ever Had Teeth Cleaned

Percent of women delivering live births who indicated that they had ever had their teeth cleaned by a dentist or dental hygienist.

Numerator: Number of women who indicated they had ever had their teeth cleaned by a dentist or dental hygienist.

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

Data Source: Alaska PRAMS, 2004-2008.

Chapter 6: Infant Health

Breastfeeding (Initiation)

Percent of women delivering live births who indicated that they had ever breastfed their newborn. [Note: For data collected 2000-2003, mothers whose babies were still in the hospital may not have answered whether they ever breastfed.]

Numerator: Number of women who indicated they had ever breastfed or pumped [breast] milk to feed their newborn.

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

Data Source: Alaska PRAMS, 2000-2008.

Breastfeeding (4 Weeks, 8 Weeks Postpartum)

Percent of women delivering live births who indicated that they had breastfed their newborn for at least 4 weeks or 8 weeks, respectively.

Numerator: Number of women who indicated they had breastfed or pumped [breast] milk to feed their newborn for at least 4 weeks or 8 weeks, respectively.

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

Data Source: Alaska PRAMS, 2007-2008.

Reasons for Stopping Breastfeeding

Percent of women delivering live births who indicated reason listed on the survey to stop breastfeeding their newborn.

Numerator: Number of women who indicated reason listed on the survey to stop breastfeeding or feeding pumped [breast] milk to their newborn.

Denominator: Total number of Alaska-resident women who delivered a live-born infant and had ever breastfed or pumped [breast] milk to feed their newborn.

Data Source: Alaska PRAMS, 2007-2008.

Placing Infants to Sleep on Their Backs

Percent of women delivering live births who indicated (on average, 4 months post-partum) that they most regularly put their infant down on his or her back when given the three options of side, back, or stomach to choose from.

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

Denominator: Total number of Alaska-resident women who delivered a live-born infant, whose infant was living with the respondent.

Data Source: Alaska PRAMS, 2000-2008.

Bed Sharing (Always or Often)

Percent of women delivering live births who indicated that they or anyone else always or often sleeps with their baby in the same bed. [Note: Data collected during 2000-2003 used the phrase "Almost always" in place of "Often".]

Numerator: Number of women who indicated they or anyone else sleeps with their infant in the same bed always or often.

Denominator: Total number of Alaska-resident women who delivered a live-born infant, whose infant was living with the respondent.

Data Source: Alaska PRAMS, 2000-2008.

Prenatal Exposure to Tobacco Smoke

Percent of women delivering live births who indicated that during their most recent pregnancy they were in the same room with another person who was smoking for any length of time on an average day.

Numerator: Number of women who indicated that during their most recent pregnancy they were in the same room with another person who was 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 PRAMS, 2004-2008.

Infant Exposure to Tobacco Smoke

Percent of women delivering live births who indicated (on average, 4 months post-partum) that their new baby was in the same room with someone who was smoking for any length of time on an average day.

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

Denominator: Total number of Alaska-resident women who delivered a live-born infant, whose infant was living with the respondent.

Data Source: Alaska PRAMS, 2000-2008.

Well-baby Checkup Barriers

Percent of women delivering live births who indicated (on average, 4 months post-partum) that barrier listed on the survey kept their baby from having a well-baby checkup.

Numerator: Number of women who indicated that barrier listed on the survey kept their baby from having a well-baby checkup.

Denominator: Total number of Alaska-resident women who delivered a live-born infant, whose infant was living with the respondent, and who had not gone as many times as respondent wanted for a well-baby checkup.

Data Source: Alaska PRAMS, 2007-2008.

Well-baby Checkups

Percent of women delivering live births who indicated (on average, 4 months post-partum) that their baby had gone for a well-baby checkup. The respondent was given the definition "A well-baby checkup is a regular health visit for your baby usually at 2, 4, or 6 months of age."

Numerator: Number of women who indicated that their baby had gone for a well-baby checkup.

Denominator: Total number of Alaska-resident women who delivered a live-born infant, whose infant was living with the respondent.

Data Source: Alaska PRAMS, 2004-2008.

Chapter 7: Child Health

Usual Place of Medical Care

Percent distribution among mothers of 3-year-olds of the place where they usually took their child for medical care when he or she was sick.

Numerator: For each place listed on the survey, number of women who indicated they usually took their child to this place for medical care when child was sick.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Enrollment in Public Programs

Percent of mothers of 3-year-olds whose child was ever enrolled in or received services from any program(s) listed on the survey.

Numerator: For each program listed on the survey, number of women who indicated that their child had ever been enrolled in or received services from this program.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Receipt of Care from Health Care Providers

Percent of mothers of 3-year-olds whose child received care during the previous 12 months from any type of health care provider(s) listed on the survey.

Numerator: For each type of health care provider listed on the survey, number of women who indicated that their child had received care during the past 12 months from this type of provider.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Receipt of Care from Health Care Specialists or Therapists

Percent of mothers of 3-year-olds whose child ever received care from any health care specialist(s) or therapist(s) listed on the survey.

Numerator: For each type of health care specialist or therapist listed on the survey, number of women who indicated that their child had ever received care from this type of specialist or therapist.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Health Conditions

Percent of mothers of 3-year-olds who were ever told by a health care provider that their child has or had any health condition(s) listed on the survey. For allergy, percent of mothers of 3-year-olds who were told by a health care provider that their child currently has an allergy that causes hives or difficulty breathing.

Numerator: For each health condition listed on the survey, number of women who indicated that a health care provider had ever told them their child has or had this health condition.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Problems Getting Health Care When Child Was Sick

Percent of mothers of 3-year-olds who experienced any problem(s) listed on the survey getting health care for their child when he or she was sick during the previous 12 months.

Numerator: For each problem listed on the survey, number of women who indicated that they had experienced this problem getting health care for their child when he or she was sick during the past 12 months.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Beliefs About Childhood Shots

Percent distribution among mothers of 3-year-olds of the statement that best described their beliefs about childhood shots or immunizations.

Numerator: For each statement listed on the survey, number of women who indicated that it best described her beliefs about childhood shots or immunizations.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Sources of Advice Not to Get Childhood Shots

Percent of mothers of 3-year-olds who were ever advised not to get childhood shots or immunizations for their child by each source listed on the survey.

Numerator: For each source listed on the survey, number of women who indicated that they had ever been advised by that source not to get childhood shots or immunizations for their child.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Consumption of Fruits and Vegetables

Percent of mothers of 3-year-olds whose child ate fruit or vegetables one time or less on an average day. Fruit was defined as fresh, canned, frozen or dried fruit. Vegetables were defined as other vegetables or salad, not including french fries, tator tots or potato chips.

Numerator: Number of women who indicated that their child ate fruit or vegetables zero times or one time on the previous day.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Consumption of Solid Fats and Added Sugars

Percent of mothers of 3-year-olds whose child ate french fries, tator tots, or potato chips or candy, cookies, or other sweets, one or more times on an average day.

Numerator: Number of women who indicated that their child ate french fries, tator tots, or potato chips or candy, cookies, or other sweets one time, two times, three times or more than three times on the previous day.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Usual Type of Milk

Percent distribution among mothers of 3-year-olds of the type of milk their child usually drinks.

Numerator: For each type of milk listed on the survey, number of women who indicated that their child usually drinks this type of milk now.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Consumption of Sweetened Beverages

Percent of mothers of 3-year-olds whose child drank none or less than one cup of the types of sweetened beverages listed on the survey on an average day.

Numerator: For each type of sweetened beverage listed on the survey, number of women who indicated that their child drank zero or less than one cup of this beverage on the previous day.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Oral Health Care, Child Visited Dentist

Percent of mothers of 3-year-olds whose child visited a dentist before age two years.

Numerator: Number of women who indicated that their child was first seen by a dentist or dental care provider before the child's 1st birthday or between the child's 1st and 2nd birthdays.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Oral Health Care, Adult Helped Child Brush Teeth

Percent of mothers of 3-year-olds who helped, or another adult helped, their child brush his or her teeth on an average day.

Numerator: Number of women who indicated that they or another adult helped her child brush his or her teeth on the previous day.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Dental Care Received

Percent of mothers of 3-year-olds whose child received types of dental care listed on the survey.

Numerator: For each type of dental care listed on the survey, number of women who indicated that their child had received this type of care.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Chapter 8: Childhood Home Environment

Source of Water in the Home

Percent distribution among mothers of 3-year-olds of the main source of water for drinking and cooking in their home.

Numerator: For each source of water listed on the survey, number of women who indicated this source was the main source of water for drinking and cooking in their home.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska.

Data Source: Alaska CUBS, 2008.

Home Safety Measures

Percent of mothers of 3-year-olds who had safety measures listed on the survey in their home.

Numerator: For each statement about home safety measures listed on the survey, number of women who indicated that this statement was true about their home.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska.

Data Source: Alaska CUBS, 2008.

Home Health Measures / Rules About Smoking in the Home

Percent of mothers of 3-year-olds who did not allow smoking anywhere inside their home.

Numerator: Number of women who indicated that no one is allowed to smoke anywhere inside their home.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska.

Data Source: Alaska CUBS, 2008.

Reading Time

Percent distribution among mothers of 3-year-olds of the amount of time they or someone else read aloud to their child on an average day.

Numerator: Number of women who indicated they or someone else read aloud to their child for 30 minutes or more, less than 30 minutes, or not at all on the previous day.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Television Time

Percent distribution among mothers of 3-year-olds of the amount of time their child spent watching television, videos or DVDs on an average day.

Numerator: Number of women who indicated that their child watched television, videos, or DVDs for 2 or more hours, 1 to less than 2 hours, less than 1 hour, or not at all on the previous day.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Discipline When Child Was Misbehaving

Percent of mothers of 3-year-olds who took (or their husband or partner took) action(s) listed on the survey when their child misbehaved during an average week.

Numerator: For each type of action listed on the survey, number of women who indicated that they, or their husband (or partner), took this action during the past week when their child was misbehaving.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Child Time with Father

Percent distribution among mothers of 3-year-olds of the number of days their child was with his or her father (or one other adult male such as a family member or friend) for more than 1 hour during an average week. The respondent was told, "This could include doing things like reading, playing, and spending time together. Do not include paid childcare providers."

Numerator: For each number of days listed on the survey, number of women who indicated that their child was with his or her father or other adult male this number of days in the past week.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Childhood Assets

Percent of mothers of 3-year-olds whose child had asset(s) listed on the survey.

Numerator: For each statement about childhood assets listed on the survey, number of women who indicated this statement described their child's situation.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Stressful Events Experienced by Child

Percent of mothers of 3-year-olds whose child ever experienced stressful life event(s) listed on the survey.

Numerator: For each stressful life event listed on the survey, number of women who indicated that their child had ever experienced this event.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Hours of Childcare

Percent distribution among mothers of 3-year-olds of the number of hours they used childcare for their child on a regular basis. The respondent was given the definition "By childcare we mean any kind of regular arrangement where someone other than the parents or legal guardians takes care of your 3-year-old child. Please include preschool as childcare."

Numerator: For each amount of weekly hours listed on the survey, number of women who indicated that they currently use this number of weekly hours of regular child care for their 3-year-old child.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent.

Data Source: Alaska CUBS, 2008.

Regular Childcare Arrangement

Percent distribution, among mothers of 3-year-olds who used childcare, of their regular childcare arrangement.

Numerator: For each type of childcare arrangement listed on the survey, number of women who indicated this type was their regular arrangement for their 3-year-old child.

Denominator: Total number of Alaska-resident mothers of 3-year-old children born in Alaska, whose child was living with the respondent and who indicated they currently use childcare.

Data Source: Alaska CUBS, 2008.

PRAMS-specific Technical Notes

The complete PRAMS methodology has been described elsewhere (1). Because PRAMS employs a complex survey design, appropriate statistical methods must be used when analyzing the data. Percentages were calculated for the characteristic of interest using PROC CROSSTAB in SURvey DATA ANalysis Software, or SUDAAN, (2). This software takes the complex survey design into account, in particular, when standard errors are computed. All missing (blank and “don’t know”) observations were excluded when calculating the percentages. All PRAMS analyses used weighted PRAMS data. PRAMS data are representative of women whose pregnancies resulted in a live birth and are not generalizable to all pregnant women.

PRAMS Survey Phases

PRAMS data analyzed for this Data Book cover 2000-2008. These years correspond to two different surveys used for data collection in Alaska. The Phase 4 survey was used for birth years 2000-2003 and the Phase 5 survey was used for birth years 2004-2008. Refer to the Indicator Definitions to see whether slight changes in question wording are present between phases. Copies of each of these surveys may be found at <http://www.epi.alaska.gov/mcheppi/prams/> under the heading “What information does PRAMS collect?”

CUBS-specific Technical Notes

To the extent possible, CUBS follows the PRAMS methodology for collecting and analyzing data. Because CUBS is a follow-up to the PRAMS survey, which employs a complex survey design, appropriate statistical methods must be used when analyzing the data. Percentages were calculated for indicators of interest using the CSTABULATE command in the Complex Samples Module in SPSS. All missing (blank and “don’t know”) observations were excluded when calculating percentages. All CUBS analyses incorporated analysis weights, which were calculated with the same methods used for PRAMS. CUBS data were weighted to the original birth cohort, excluding women who had moved out of state since having their baby, or their child was not living with them at the time they responded to PRAMS. CUBS data are representative of mothers of 3-year-old children born in Alaska.

Several questions on the CUBS survey direct the mother to respond for the timeframe of “yesterday” or “during the past week”. These questions were designed to minimize recall bias and allow for an overall “average day” (or “average week”) distribution when describing the prevalence among the population.

CUBS Survey Phase

CUBS data analyzed for the Data Book are for the 2005 PRAMS birth cohort who were 3 years old, on average, when data were collected for CUBS. The CUBS Phase 2 survey was used. A copy of this survey may be found at <http://www.epi.alaska.gov/mcheppi/cubs/> under the heading “What information does CUBS collect?”

Statistical Significance

All statistical analyses were performed at a significance level of $\alpha = .05$. Any mention of an increasing or decreasing trend or difference between two groups implies that it is statistically significant at $\alpha = .05$. Confidence intervals depicted on bar charts are all at 95% confidence. These are logarithmic intervals calculated using SUDAAN and therefore are not symmetric.

Trend Analyses

Trend analyses were completed using logistic regression (PROC RLOGIST in SAS-callable SUDAAN) to test for linear trend at the 95% confidence level. P values < .05 were considered significant.

Percent Change

Percent change (PC) between two time periods is calculated as follows:

$$PC = \frac{(P_n - P_o)}{P_o} \times 100 \quad \text{where } P_n = \text{later time period} \\ P_o = \text{earlier time period}$$

SPSS v. 16.02

The Complex Samples module in SPSS was used for all CUBS analyses in this Data Book (3).

SUDAAN v. 10.0.1

Survey Data Analysis Software for the analysis of complex survey data was used for all PRAMS analyses in this Data Book (2). SUDAAN properly accounts for correlation, clustering, unequal weighting and stratification in a data set. A Statistical Analysis Software or SAS-callable version was used.

Tribal Health Region Data

Because estimates based on small samples are imprecise and may be biased, estimates for non-Native women from regions in which the number of respondents is fewer than 30 are not reported. Flags indicating the data may be unreliable were placed on data representing Alaska Native women in the Arctic Slope and Bristol Bay tribal health regions, as the number of respondents in these regions was more than 30, but less than 60.

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1. Shulman HB, Gilbert BC, Lansky A. The Pregnancy Risk Assessment Monitoring System (PRAMS): Current methods and evaluation of 2001 response rates. *Public Health Rep* 2006;121:74-83.
 2. Research Triangle Institute (RTI). SUDAAN Language Manual, Release 9.0. Research Triangle Park, NC: RTI: 2004. <http://www.rti.org/sudaan/>
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