

**Alaska**  
**Health Status Indicators**  
2000-2009

**Compiled by the Alaska Division of Public Health**

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# Introduction

The mission of the Division of Public Health (DPH) is to protect and promote the health of all Alaskans. As such, information on the health status of Alaska's people is both a valuable tool and an important product of the Division's work.

This report was developed by DPH executive leaders and is intended for use by them, other government agencies, community organizations and all Alaskans to identify health priorities and help guide policy and funding decisions where appropriate.

These 35 indicators represent a cross-section of health and safety issues monitored by DPH and are intended to provide only a snapshot of the health of Alaskans. This set of indicators may change in future reports as the focus on health priorities evolves and important new data become available.

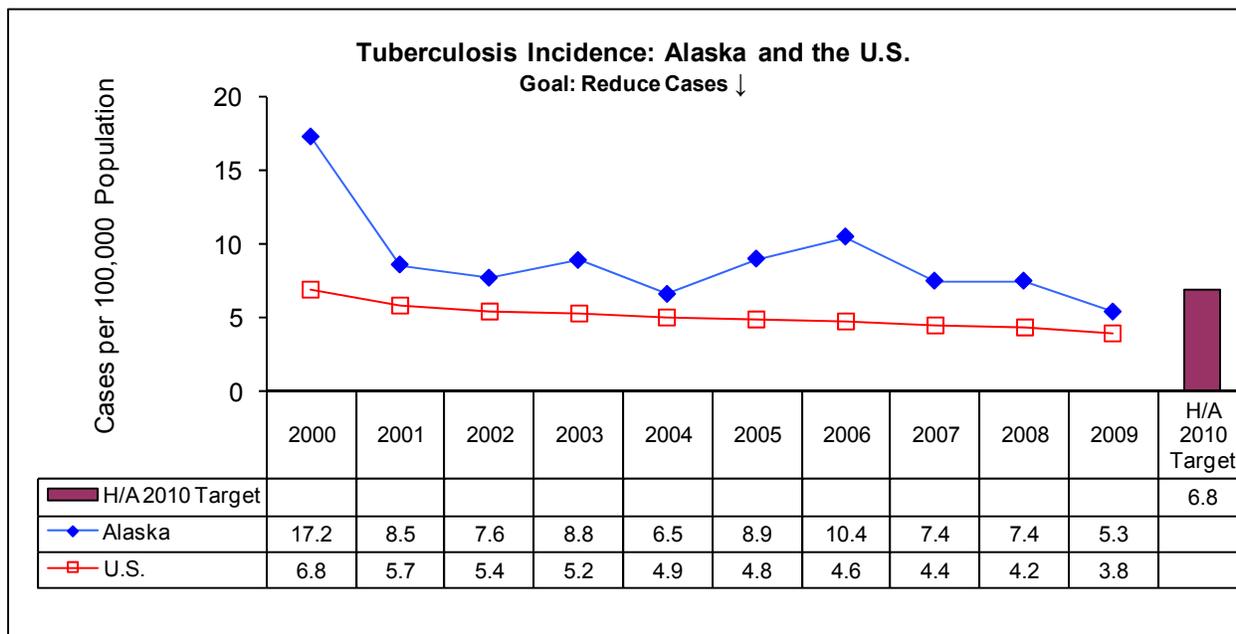
In most cases, the Alaska data in this document are reported for the most recent 10 years available and compared to national data for the same period. For most indicators Alaska data are also compared to targets in Healthy Alaskans 2010, a framework constructed by statewide partners to guide health improvements in Alaska between 2000 and 2010. However, in some instances there is no corresponding Healthy Alaskans target or national data. A note about U.S. data: There is often as much as a two-year lag before CDC's National Center for Health Statistics reviews and releases annual numbers. Every effort was made to use the most currently available data for this report.

For other publications and data on the health status of Alaskans and topics of public health importance, see DPH's Center for Health Data and Statistics at: <http://www.hss.state.ak.us/dph/infocenter/>



**Infectious Disease Indicators**

## Infectious Disease Indicator: Tuberculosis Incidence



Data Source: Alaska – Morbidity Database; U.S. – National Notifiable Diseases Surveillance System  
U.S. 2008 data is provisional from CDC

### Current Issues and Trends

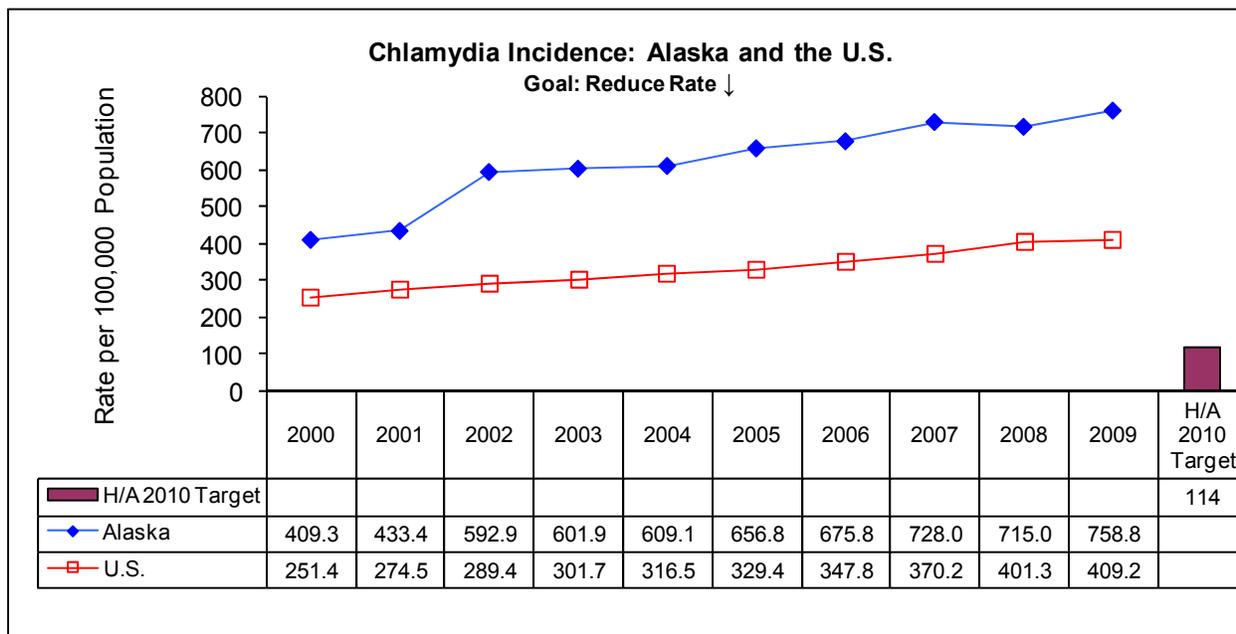
The incidence rate of tuberculosis (TB) in Alaska shows an overall decreasing trend over the past 10 years. In 2004, the rate fell below the Healthy Alaskans 2010 target for the first time; however, the rate rose to 10.4 in 2006 due to an outbreak among homeless people in Anchorage. As the outbreak has come under control, the rate declined in 2007 but plateaued in 2008 at 7.5 cases/100,000. Of particular concern are two groups, Alaska Natives and Asian-Pacific Islanders, who have rates of TB that are up to five times greater than the state average. These groups represent only 17% and 4% of the total population, respectively, but suffer 75-85% of the burden of this disease. Because many people in Alaska are infected with the TB germ (have *latent TB infection* diagnosed by a positive TB skin test), it is very likely that sporadic outbreaks will occur.

People who have been in contact with each case of TB are evaluated for infection and disease due to TB. The investigation of contacts is a critical part of TB control, and is not directly reflected in this graph. There are, on average, 16 contacts identified for each person with TB. In addition, between 600 and 800 people are found to have latent TB infection each year in Alaska and are started on drug treatment to prevent TB disease.

### Data Limitations

TB reporting is part of a passive disease surveillance system. It is possible that cases went unreported, but this is highly unlikely for the following reasons: 1) most providers, public and private, utilize the State Public Health Laboratory for TB cultures; 2) the State provides TB medications free of charge; and 3) a 2001 pilot study of pharmacies dispensing TB meds failed to find additional cases.

## Infectious Disease Indicator: Chlamydia Incidence



Data Source: Alaska – Section of Epidemiology; U.S. – CDC

### Current Issues and Trends

Rates of chlamydia infection have risen steadily in Alaska and the U.S. in recent years, and Alaska's rate has been nearly twice the U.S. rate since 2002. High rates has ranked Alaska first or second in the nation since 2000 for chlamydia rates.

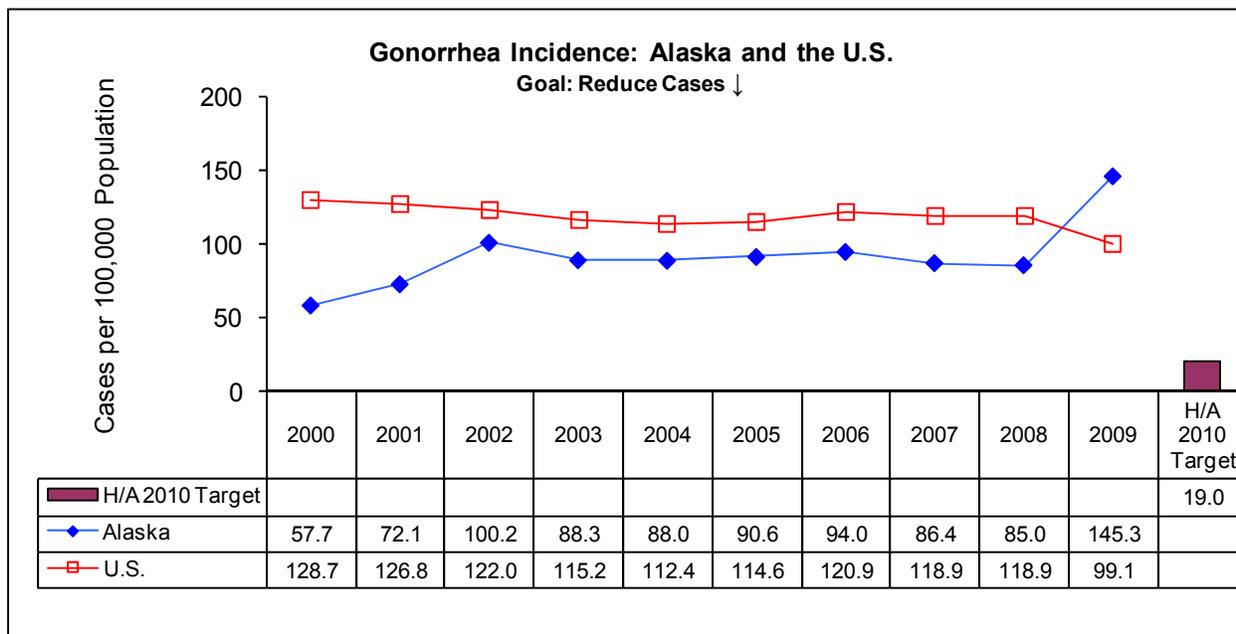
Several factors increased chlamydia detection in Alaska, expansion of chlamydia screening activities, broader partner notification/disease investigation activities, and targeted testing to those individuals most likely to be infected. In addition more sensitive and less invasive testing (using urine specimens) detected more infections, allowed specimens to be tested for both chlamydia and gonorrhea, made screening more acceptable to males and feasible (in non-clinical settings), and allowed shipping of specimens from outlying areas.

Untreated chlamydia in women, which is usually asymptomatic, and can lead to complicated infection, infertility or life-threatening ectopic pregnancy. Reported chlamydia cases may not be accurately reflect the true number of infection, because so many infections are asymptomatic they may go undetected, particularly among young men.

### Data Limitations

Chlamydia infection is often asymptomatic in females and males. The number of reported infections is likely an underestimate. It is difficult to determine if the rise in reported cases represents a true increase in disease incidence, increased screening, improved reporting, increased partner services and testing – or all of these factors.

## Infectious Disease Indicator: Gonorrhea Incidence



Data Source: Alaska – Section of Epidemiology; U.S. – CDC

### Current Issues and Trends

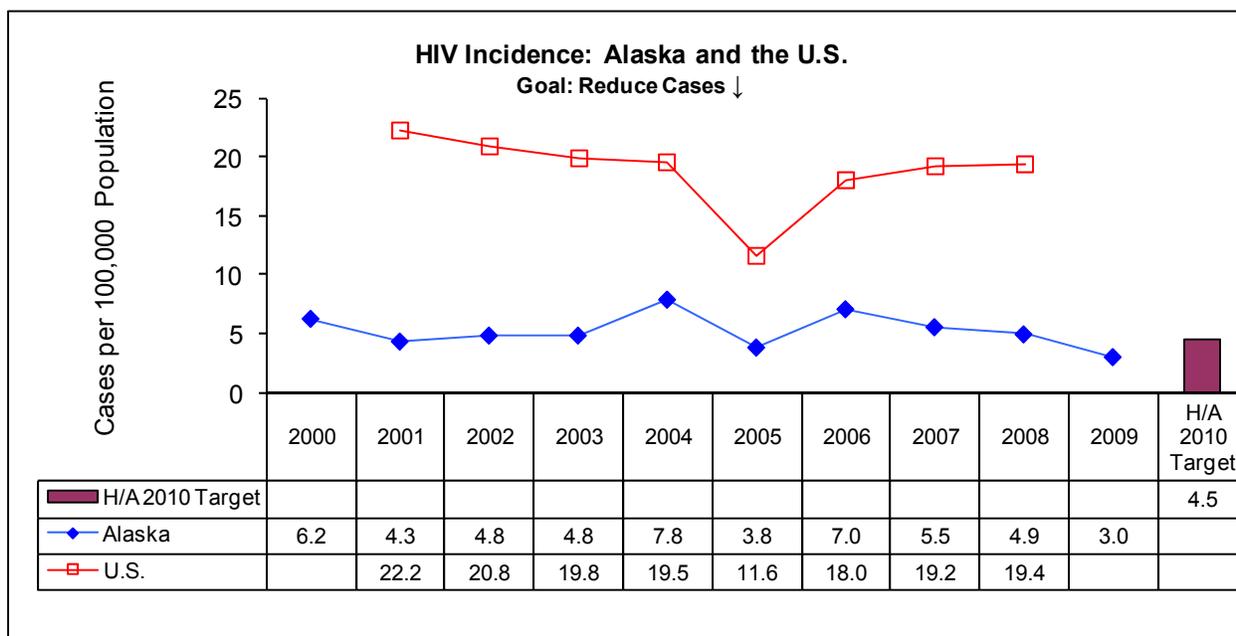
Until 2009, gonorrhea rates in Alaska were below the U.S. national rate. From 2008 to 2009, Alaska's rate (145 per 100,000 persons) rapidly rose above the national rate (99 per 100,000 persons) and more than tripled (118 cases per 100,000 persons vs. 373 cases per 100,000 persons) in Southeast Alaska. In 2009 all areas of the state saw an increase in gonorrhea case numbers. More sensitive and less invasive testing (using urine specimens) have detected more infections, and allowed specimens to be tested for both chlamydia and gonorrhea, made screening more acceptable to males and feasible in non-clinical settings, and allowed shipping of specimens to labs from outlying areas. Although males often have symptoms that cause them to seek treatment, gonorrhea infection is sometimes asymptomatic, especially in females.

Intensified disease investigation activities, increased targeted testing to individuals most likely to be infected, and exploring ways to prevent infection with early prophylactic treatment, remain public health priorities for disease intervention and are necessary to contain infection rates. Infections due to gonorrhea are a major cause of complicated pelvic infections leading to infertility. In addition, studies provide strong evidence that gonococcal infections facilitate the transmission of HIV infection.

### Data Limitations

Gonorrhea infection may be asymptomatic, particularly in females. Reported disease incidence is influenced by the extent of screening and the degree to which infected persons' sex partners are tested.

## Infectious Disease Indicator: HIV Incidence



Data Source: Alaska – Section of Epidemiology; U.S. – CDC

### Current Issues and Trends

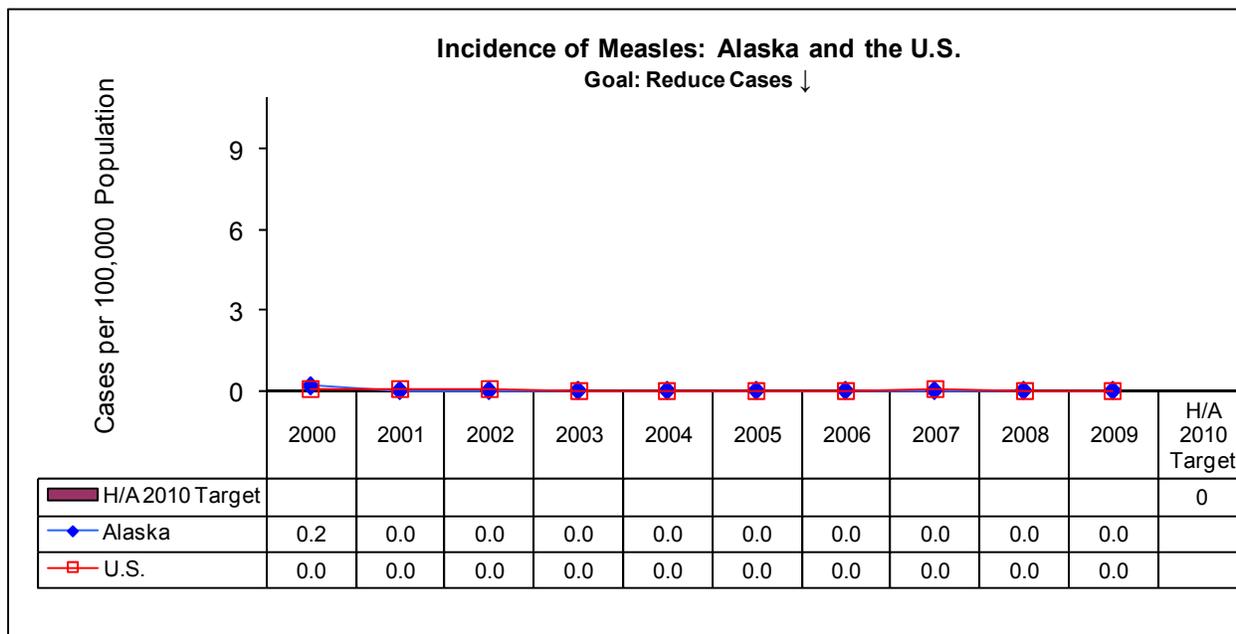
HIV incidence in Alaska (HIV infection with and without AIDS) has been relatively stable when viewed across recent years, and remains well below the U.S. rate. Progression to AIDS declined in both Alaska and the U.S. after 1996, when medical treatments to prolong life and protect health were first introduced for persons with HIV infection. Treatment options have continued to improve, but preventing HIV infection remains the most effective means of reducing illness and death. Individuals with HIV may have no symptoms for many years and may unknowingly transmit HIV to others. Partner notification by public health professionals allows individuals exposed to HIV to learn of their exposure, detecting infections much earlier than would otherwise be the case. Awareness of infection has been shown to significantly reduce individual behaviors likely to transmit infection. Early HIV diagnosis also increases opportunities for individuals to access treatment to maintain their health, and facilitates their access to other services.

Partner notification activities and early diagnosis for those with HIV infection remain among the highest public health priorities.

### Data Limitations

HIV became reportable in Alaska in 1999. Data presented are for individuals known to be Alaska residents at their first known date of HIV diagnosis. Increased activities to detect HIV may artificially increase rates. Alaska cases are few, causing rates to be unstable. National rates were calculated from Centers for Disease Control (CDC) data for 33 states (including Alaska) and 5 areas with confidential HIV reporting.

## Infectious Disease Indicator: Measles Incidence



Data Source: Alaska – Section of Epidemiology *Bulletin*; U.S. – CDC, 2008 Summary of Notifiable Diseases

### Current Issues and Trends

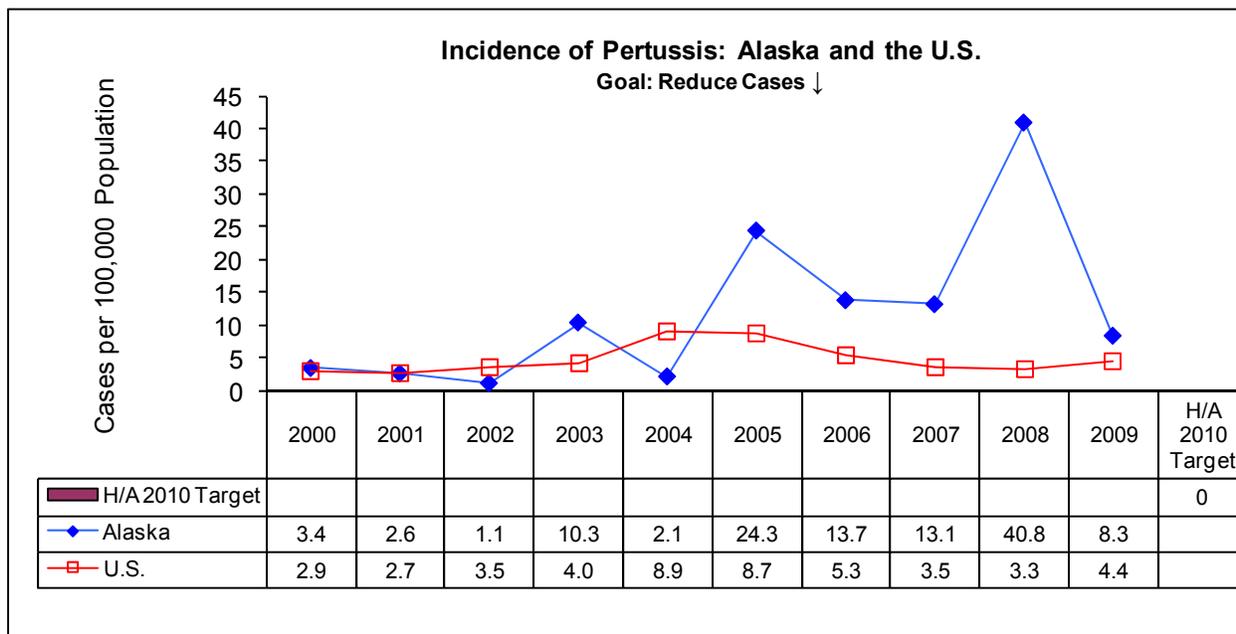
Measles is a highly contagious respiratory disease caused by a virus. The disease is also called rubeola. Measles causes fever, runny nose, cough and a rash all over the body. About one out of 10 children with measles also gets an ear infection, and up to one out of 20 gets pneumonia. For every 1,000 children who get measles, one or two will die.

Measles is nearly eliminated in Alaska and the U.S. In the past 12 years, two outbreaks of measles occurred in Alaska: the first in Juneau in 1996 and the second in Anchorage in 1998. Following the 1998 outbreak, the Department of Education and Early Development, with the support of the Department of Health and Social Services, began to require two doses of MMR (measles, mumps and rubella) vaccine for all students attending school in Alaska. Since the implementation of the two-dose MMR requirement, there has only been a single case of imported measles – and none since 2001.

### Data Limitations

According to state regulation, suspected or confirmed measles cases must be reported to the Division of Public Health. It is possible there have been cases that were not reported; however, reported cases of measles-like rash illness are investigated to determine if measles is the cause.

## Infectious Disease Indicator: Pertussis Incidence



Data Source: Alaska – Section of Epidemiology *Bulletin*; U.S. – CDC, Summary of Notifiable Diseases  
U.S. 2006 data is provisional from CDC

### Current Issues and Trends

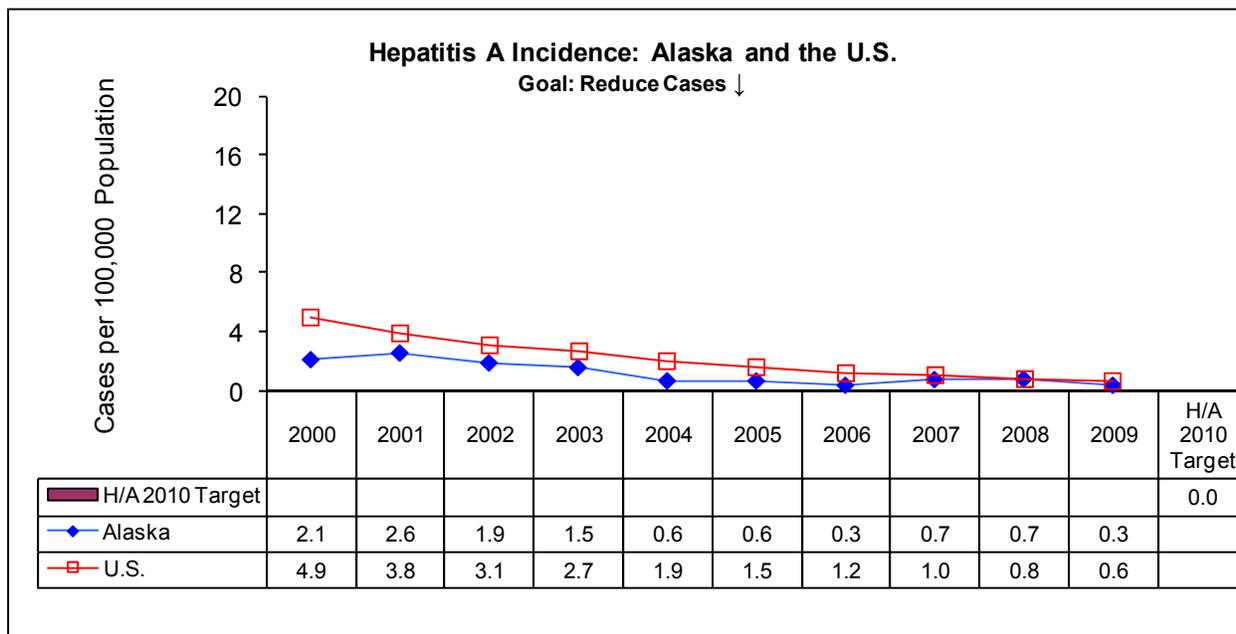
Pertussis is a vaccine-preventable disease, but it still occurs in the U.S. The incidence of pertussis has increased steadily since the 1980s. Major complications are most common among infants and young children and include hypoxia, apnea, pneumonia, seizures, encephalopathy, and malnutrition. Young children can die from pertussis and 10 children died in the United States in 2007. Most deaths occur among unvaccinated children or children too young to be vaccinated.

In July 2005, the State Laboratory began offering a new, more sensitive testing methodology - PCR (polymerase chain reaction). This may have contributed to the peak of cases reported in 2005 in combination with several outbreaks that were identified in Alaska communities during that year. An outbreak of pertussis in Juneau in 2008 resulted in a rate of 40.8 cases/100,000, the highest rate recorded in the state. Since 2005, the incidence of pertussis in Alaska has remained higher than the national average, however a newly licensed adolescent/adult pertussis vaccine is expected to help reduce the burden of pertussis over the next several years.

### Data Limitations

According to state regulation, pertussis cases must be reported to the Division of Public Health. It is possible some cases were not diagnosed and some were not reported.

## Infectious Disease Indicator: Hepatitis A Incidence



Data Source: Alaska – Morbidity Database; U.S. – CDC, Summary of Notifiable Diseases

### Current Issues and Trends

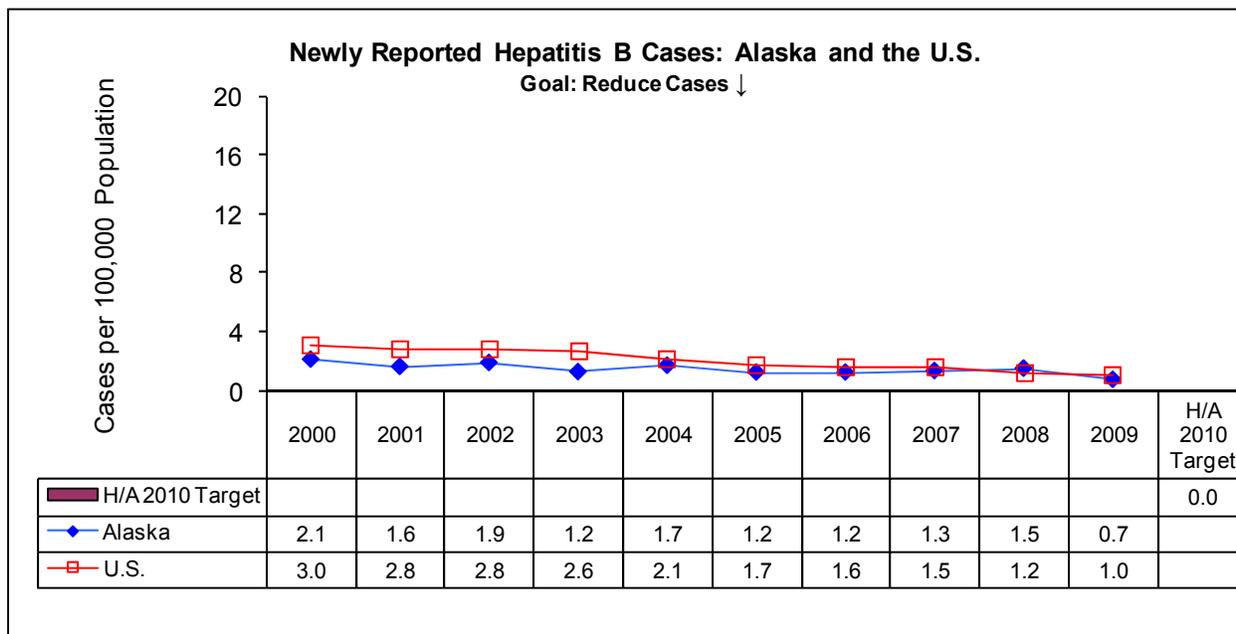
The rate of hepatitis A has declined dramatically over the past 15 years. This is a direct result of hepatitis A vaccine, which was first used in Alaska Native communities to ameliorate and prevent cyclic outbreaks. The vaccine was licensed by the U.S. Food and Drug Administration (FDA) in 1995 and became available through the Alaska Immunization Program in 1996. The vaccine was recommended for all children ages 2-14; in 1997, the recommendation was expanded to children ages 2-18. Then, in the fall of 2001, all children enrolled in public or private schools or childcare in Alaska were required to either be vaccinated against hepatitis A or have proof of immunity.

The Healthy Alaskans 2010 goal of 0 cases of hepatitis A is probably unrealistic because sporadic cases due to travel-related exposure and immigration are expected to continue.

### Data Limitations

Hepatitis A cases are to be reported to the Division of Public Health. National studies have demonstrated that hepatitis A is grossly underreported. The true occurrence of hepatitis A nationally is probably more than 4 times the amount reported, and such similar underreporting may occur in Alaska.

## Infectious Disease Indicator: Newly Reported Hepatitis B Cases



Data Source: Section of Epidemiology; US – CDC, Summary of Notifiable Diseases

### Current Issues and Trends

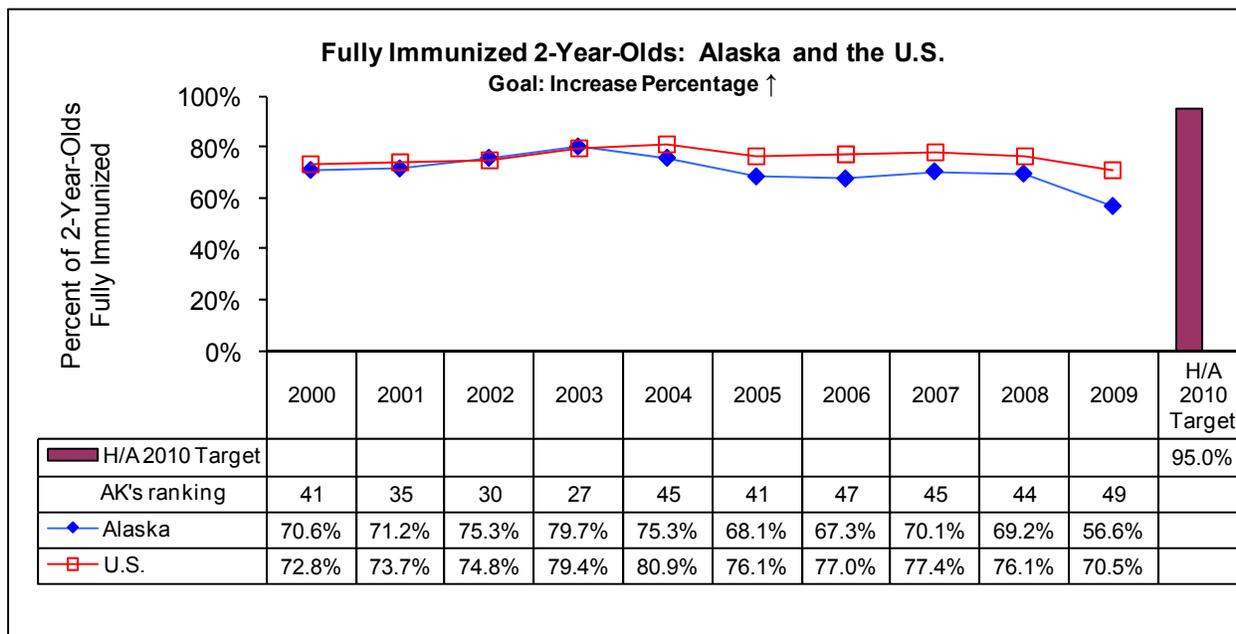
The rate of hepatitis B has declined dramatically over the past 25 years, in part a result of the infant hepatitis B immunization program. This vaccine was licensed by the U.S. Food and Drug Administration (FDA) in 1982 and administered widely in Alaska Native communities throughout Alaska. In 1991, the Centers for Disease Control (CDC) recommended that all infants be vaccinated against hepatitis B, and in 1993 the Alaska Immunization Program began providing the vaccine to all newborns. It became a required vaccine for attendance in school or childcare facilities in Alaska in the fall of 2001.

The Healthy Alaskans 2010 goal of 0 cases of hepatitis B is probably not realistic due to ongoing immigration and sporadic domestic cases.

### Data Limitations

Hepatitis B is reported through the Alaska notifiable disease surveillance system, which is a passive system. National studies have demonstrated that hepatitis B is grossly underreported. The true occurrence of hepatitis B nationally is probably more than 3 times the amount reported, and the same underreporting is likely in Alaska.

## Infectious Disease Indicator: Fully Immunized Two Year Olds



Data Source: CDC National Immunization Survey – See Data Limitations below

### Current Issues and Trends

Over the past decade, since the National Immunization Survey began gathering data about the status of fully immunized 2 year olds, Alaska's ranking has ranged from as low as 49<sup>th</sup> to as high as 22<sup>nd</sup> among the 50 states.

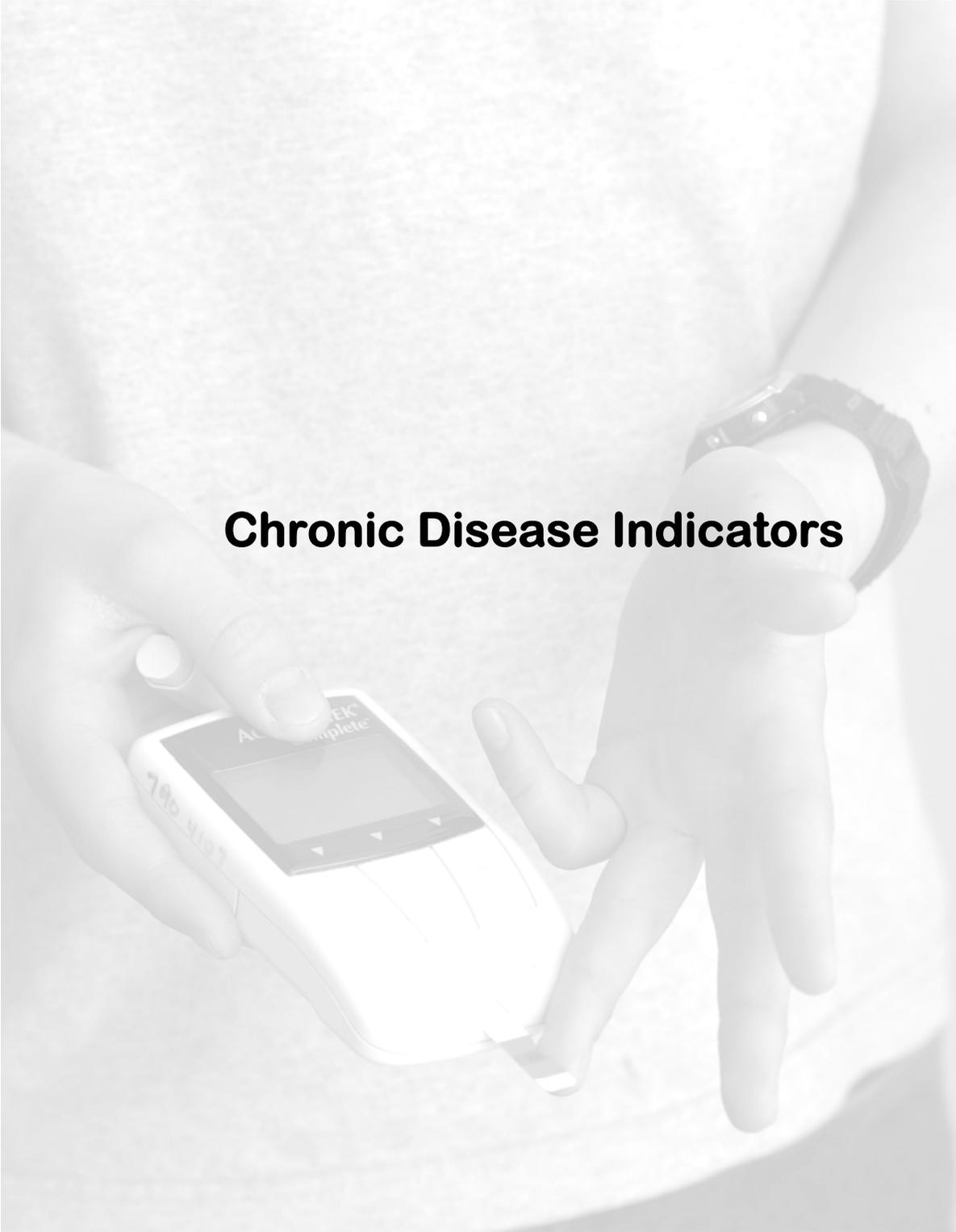
Statistics varied as the CDC added new vaccines to its recommended "basic immunization series." From 1996 to 1998, a four-dose vaccination series was the recommendation. That increased to five doses in 1999 and, in 2005, was updated again to the new six-dose recommended series. The 2009 data actually includes one *less* vaccine than 2008 because of a national shortage of one vaccine during the survey period.

Under the new guidelines, the U.S. rate of fully immunized 2 year olds is reported at 70.5% in 2009; Alaska's rate was 56.6% in 2009, ranking it 49<sup>th</sup> among the states.

### Data Limitations

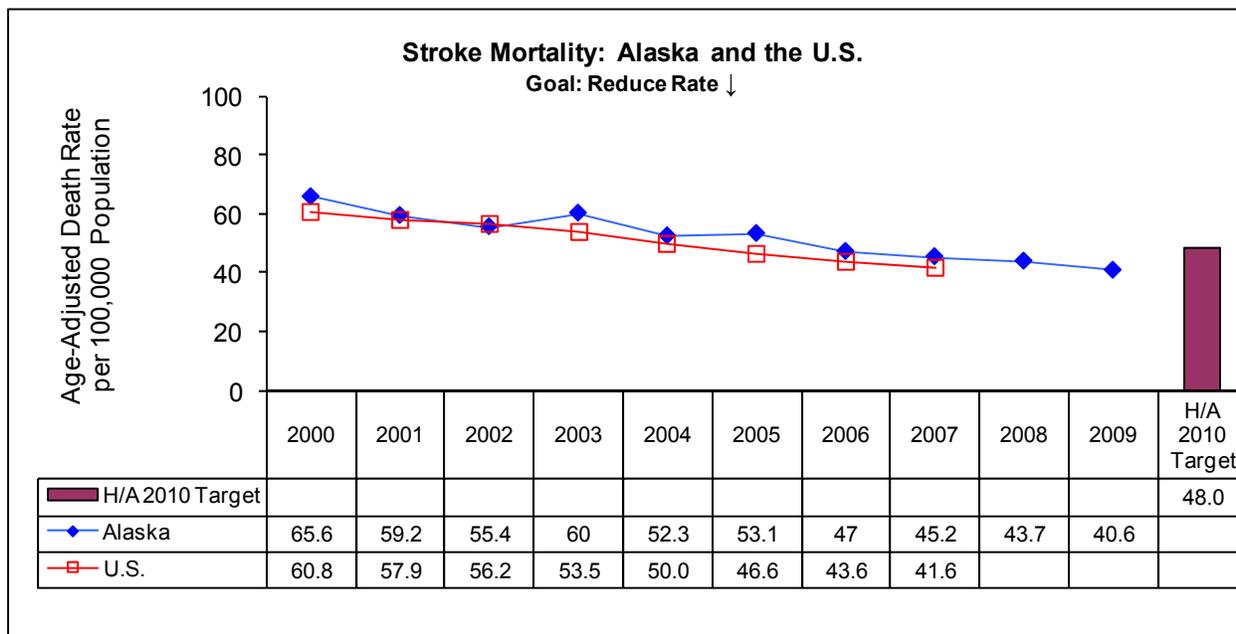
Annual percentages/rankings in the table above are based on CDC recommendations at the time, which change over the years when new vaccines are added to the "basic series":

- 1996 – 1998, four-dose series = 4/3/1/3 (4 DTaP/ 3 polio/ 1 MMR/ 3 Hib)
- 1999 – 2004, five-dose series = 4/3/1/3/3 (4 DTaP/ 3 polio/ 1 MMR/ 3 Hib/ 3 Hep B)
- 2005 to 2009, six-dose series = 4/3/1/3/3/1 (4 DTaP/ 3 polio/ 1 MMR/ 3 Hib/ 3 Hep B/ 1 Varicella)
- 2010, six-dose series = 4/3/1/0/3/1/4 (4 DTaP/ 3 polio/ 1 MMR/ 0 Hib/ 3 Hep B/ 1 Varicella/ 4 Pneumo)

A grayscale photograph of a person's hands holding a handheld medical device, likely a glucose meter. The person is wearing a watch on their left wrist. The device has a screen displaying the text "All done" and "Complete". The person's right hand is holding the device, and their left hand is positioned near the bottom of the device. The background is a plain, light-colored surface.

## Chronic Disease Indicators

## Chronic Disease Indicator: Stroke Mortality



Data Source: Bureau of Vital Statistics

### Current Issues and Trends

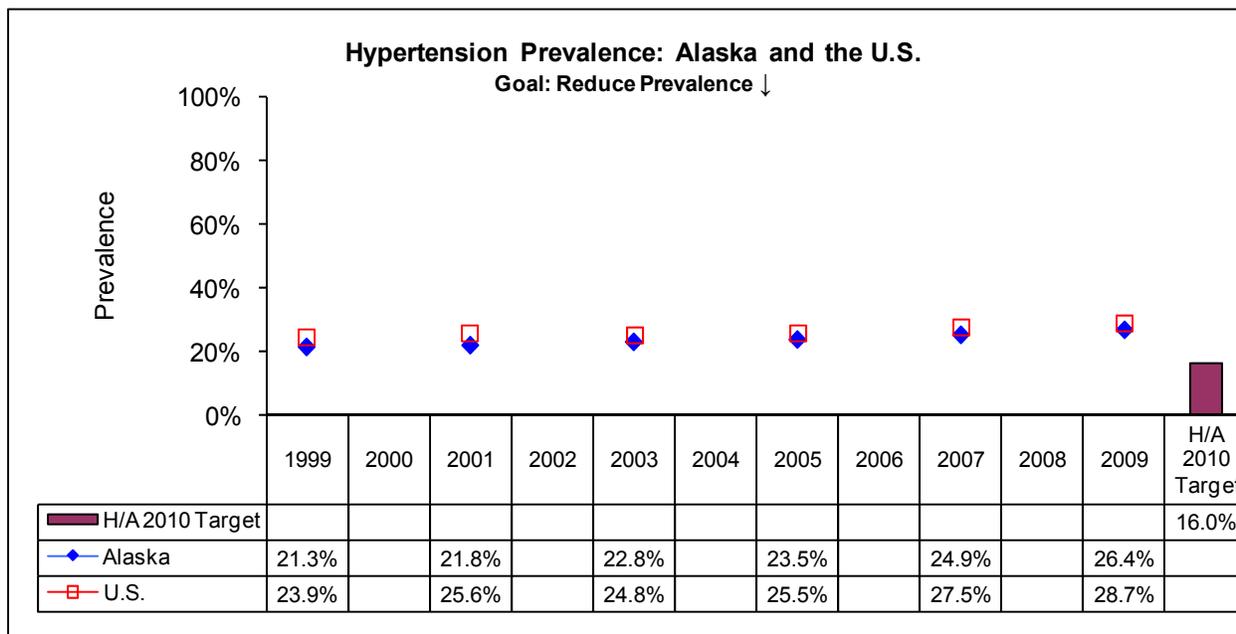
Age-adjusted stroke mortality rates have declined in both the U.S. and in Alaska between 1999 and 2009 (2007 for the U.S.). During that period Alaska's rates have been above the U.S. rates for all but a single year (2002). As of 2006, Alaska's rate meets the Healthy Alaskans 2010 target of at or below 48 deaths per 100,000 (age-adjusted).

The occurrence of stroke is associated with several risk factors, including hypertension and history of smoking. In Alaska (2007 and 2009 data combined), well more than half (62%) of adults reporting having ever been told they had a stroke also were told they had high blood pressure, and 55% were current or former smokers.

### Data Limitations

Alaska 2009 data are preliminary. The following limitations apply to death certificate data generally: incomplete death certificate forms, inaccurate diagnosis information, and variations in interpretation of causation and contribution of specific causes.

## Chronic Disease Indicator: Hypertension Prevalence



Data Sources: Chronic Disease Prevention and Health Promotion, BRFSS (AK); CDC, BRFSS (U.S.; 50 States, DC, and Territories)

### Current Issues and Trends

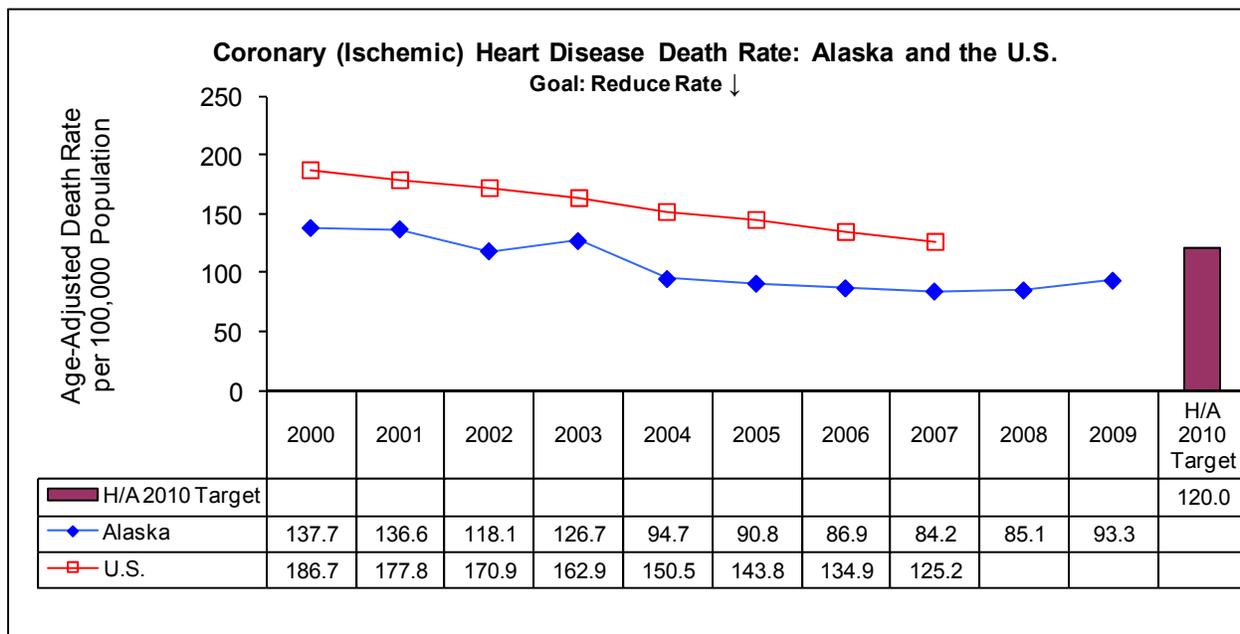
The percentage of Alaskan adults who report having been told they have high blood pressure (i.e., hypertension) has increased since 1999. The comparable U.S. data have been consistently slightly higher compared to Alaska's rates, and also reveal a slight increase over the same time period.

Considering Alaska data from 2009, self-reported high blood pressure increased with age; 57% of Alaskans over the age of 64 reported high blood pressure. There were no differences in the prevalence of high blood pressure by gender, race, or education level. In 2009, of those Alaskans who self-reported having high blood pressure, 67% reported they were currently taking blood pressure medicine.

### Data Limitations

Data from the BRFSS: are not representative of Alaskans without landline phones (3% of the state); only provide statewide and large regional estimates; and are self-reports and subject to a number of potential sources of bias, including the tendency to under-report undesirable behaviors, such as smoking. As BRFSS data are not age-adjusted, caution is advised when making comparisons between Alaska and U.S. median prevalence.

## Chronic Disease Indicator: Coronary (Ischemic) Heart Disease Deaths



Data Source: Bureau of Vital Statistics

### Current Issues and Trends

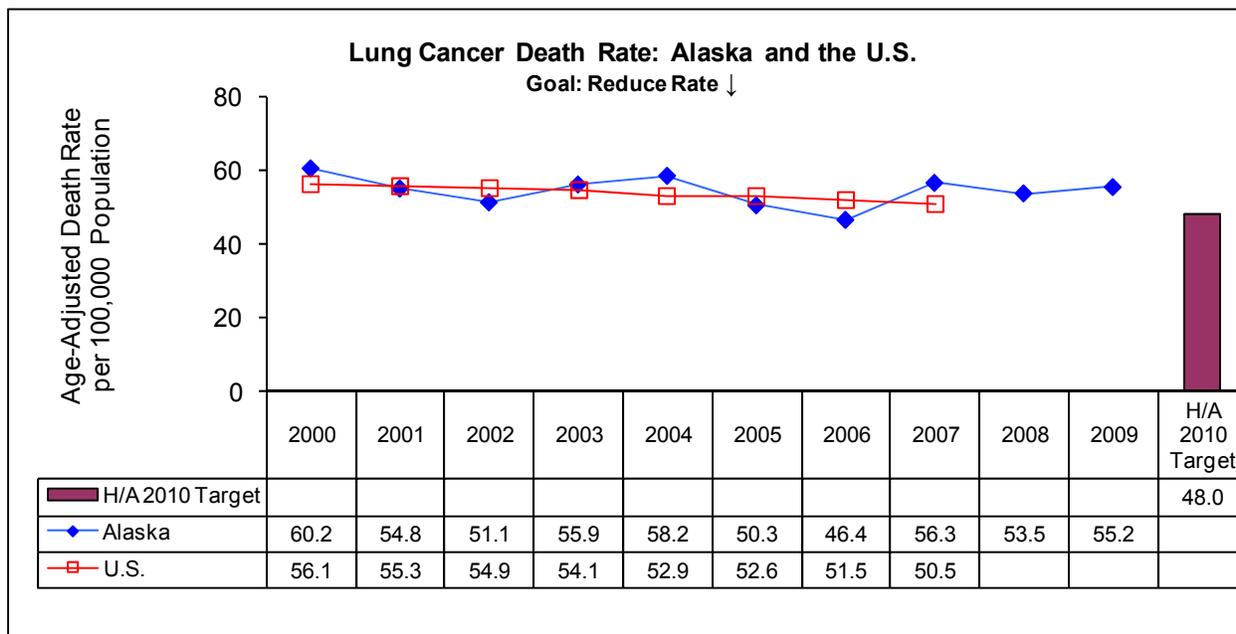
Paralleling the U.S. trend, coronary heart disease (CHD) mortality in Alaska has declined over the past decade. The Alaska CHD mortality rate has consistently been lower than the U.S. mortality rate. Since 2004, the Alaska CHD age-adjusted mortality rate has been below the Healthy Alaskans 2010 target of 120 deaths per 100,000.

The decline in CHD mortality rates is likely due in part to increased survival related to better medical care.

### Data Limitations

Alaska 2009 data are preliminary. The following limitations apply to death certificate data generally: incomplete death certificate forms, inaccurate diagnosis information, and variations in interpretation of causation and contribution of specific causes.

## Chronic Disease Indicator: Lung Cancer Deaths



Data Source: Bureau of Vital Statistics

### Current Issues and Trends

Lung cancer mortality rates in Alaska have not significantly increased or decreased in the past decade. Age-adjusted rates of death due to lung cancer in Alaska have been comparable to U.S. rates during the past 10 years. The Healthy Alaskans 2010 target rate of 48 or fewer lung cancer deaths per 100,000 was reached in 2006 only.

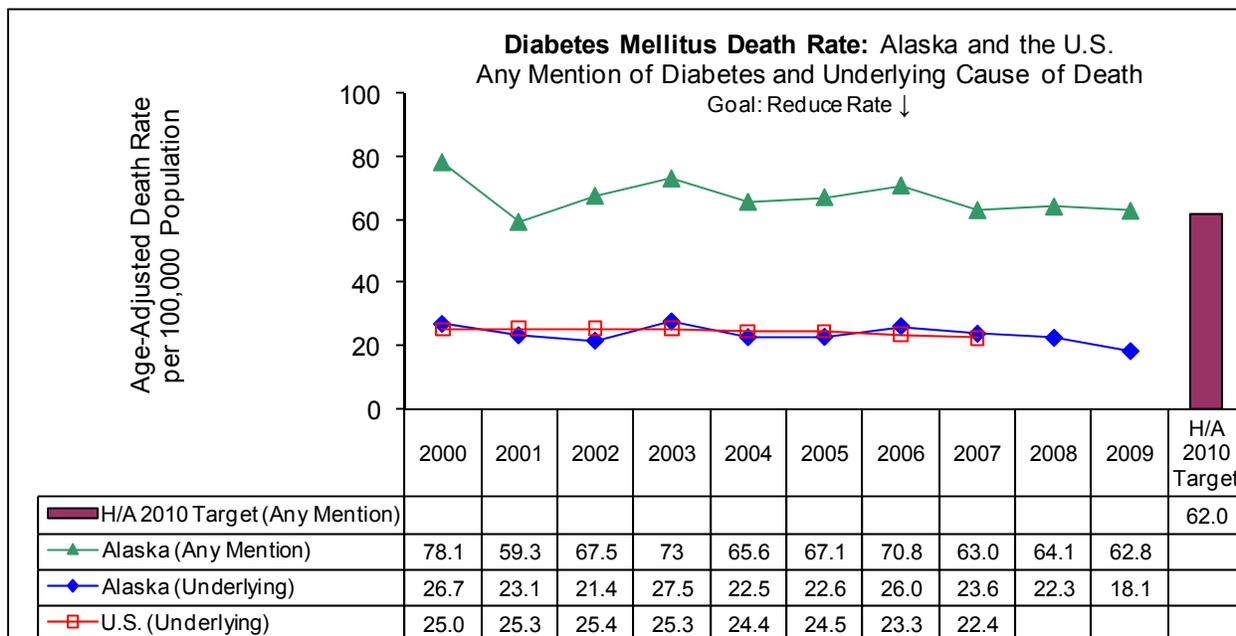
Cancer of the lung is the second most common type of cancer among both men and women in Alaska, behind prostate cancer in men and breast cancer in women. In terms of mortality rates, however, lung cancer is number one among both men and women.

The vast majority of Alaskans with lung cancer have a history of smoking. Of those cases of lung cancer for which smoking status was available for the period 2001-2007, 96% of men and 91% of women had been smokers in their lifetime or were smokers at the time of diagnosis.

### Data Limitations

Alaska 2009 data are preliminary. Death certificate data have the following limitations generally: incomplete death certificate forms, inaccurate diagnosis information, and variations in interpretation of causation and contribution of specific causes.

## Chronic Disease Indicator: Diabetes Mellitus Deaths



Data Source: Bureau of Vital Statistics

### Current Issues and Trends

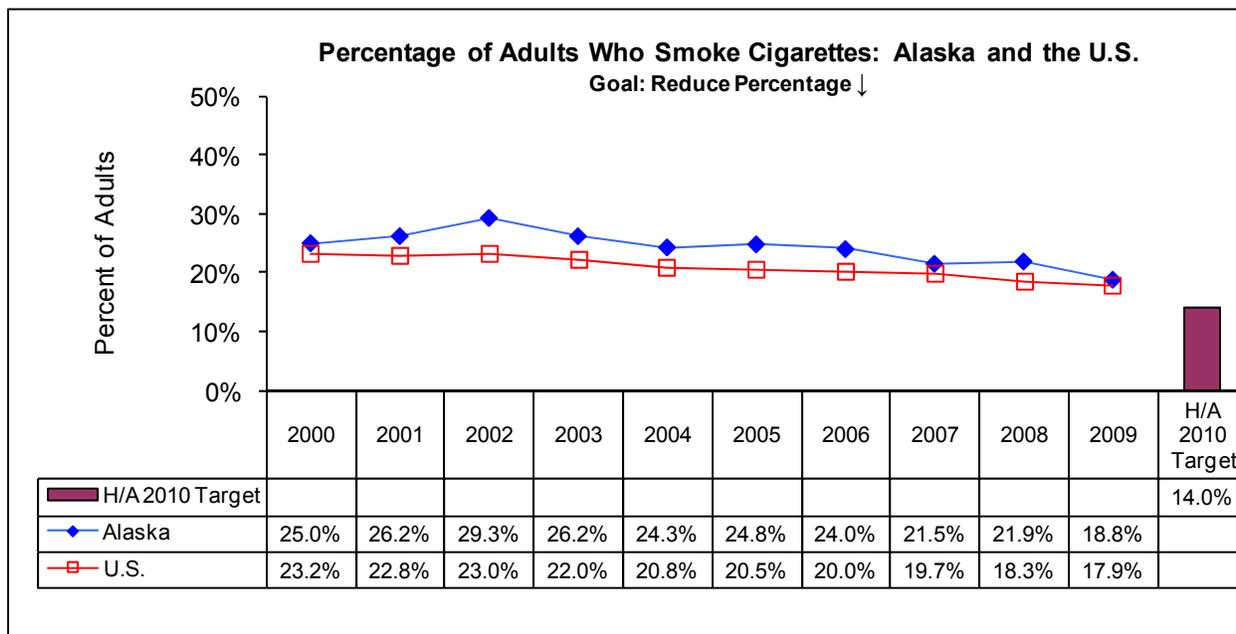
Mortality rates are calculated based on the “underlying cause” of death listed on the death certificate. Due to a number of factors, many individuals whose deaths were related to their diabetes have their “underlying cause” of death reported as something other than diabetes (e.g., heart disease). Although this is understandable given that 80% of persons with diabetes ultimately die from heart disease or stroke, this calculation likely results in significant underreporting of diabetes mortality rates. For this reason, Alaska has chosen a Healthy Alaskans 2010 target based on diabetes listed as a contributing factor anywhere on the death certificate (“any mention”), and monitors trends in diabetes deaths using both the “any mention” and “underlying cause” of death methods. Comparable U.S. data using the “any mention” method are not available.

Both Alaska trends indicate that diabetes mortality rates have declined slightly over the past 10 years. The Healthy Alaskans 2010 target was reached only in 2001.

### Data Limitations

Comparable U.S. “any mention” diabetes mortality rates are not available. Death certificate data underreport diabetes as a contributing or underlying cause and do not distinguish between Type 1 and Type 2 diabetes. Death certificate data also have the following limitations: incomplete death certificate forms, inaccurate diagnosis information, and variations in interpretation of causation and contribution of specific causes.

## Chronic Disease Indicator: Adults Who Smoke Cigarettes



Data Sources: Chronic Disease Prevention and Health Promotion, BRFSS (AK); CDC, BRFSS (U.S.; 50 States, DC, and Territories)

### Current Issues and Trends

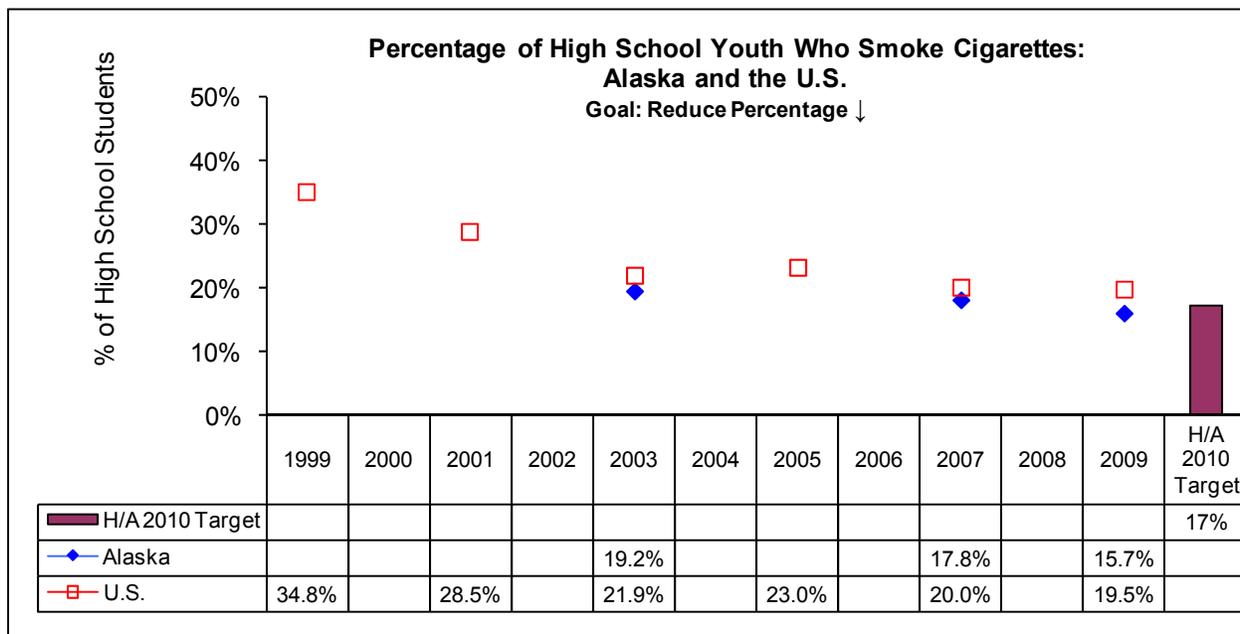
Adult smoking prevalence decreased significantly from 27.7% in 1996 to 21.5% in 2007, and has declined slightly since. The median state prevalence (of all 50 states, DC, and all U.S. territories) has been consistently lower, and has also declined slightly over the decade, according to the Behavioral Risk Factor Surveillance System (BRFSS). The adult smoking prevalence rate in Alaska remains above the Healthy Alaskans 2010 target of 14%.

Alaska Native adults are approximately twice as likely as their non-Native counterparts in Alaska to smoke. Residents of rural regions of the state and Alaskans with relatively little income or education are also significantly more likely to be smokers.

### Data Limitations

Data from the BRFSS: are not representative of Alaskans without landline phones (3% of the state); generally only provide statewide and large regional estimates; and are self-reports and subject to a number of potential sources of bias, including the tendency to under-report undesirable behaviors, such as smoking. As BRFSS data are not age-adjusted, caution is advised when making comparisons between Alaska and U.S. median prevalence.

## Chronic Disease Indicator: High School Youth Who Smoke Cigarettes



Data Sources: Chronic Disease Prevention and Health Promotion, YRBS (AK); CDC YRBS (U.S.)

Note: Alaska YRBS data are presented from 1999 through 2009 due to the limited number of data points available.

### Current Issues and Trends

After a significant drop between 1995 and 2003, rates of smoking among high school students in Alaska have dropped slightly between 2003 and 2009, and are now below the national average. A similar trend occurred nationally during this time period.

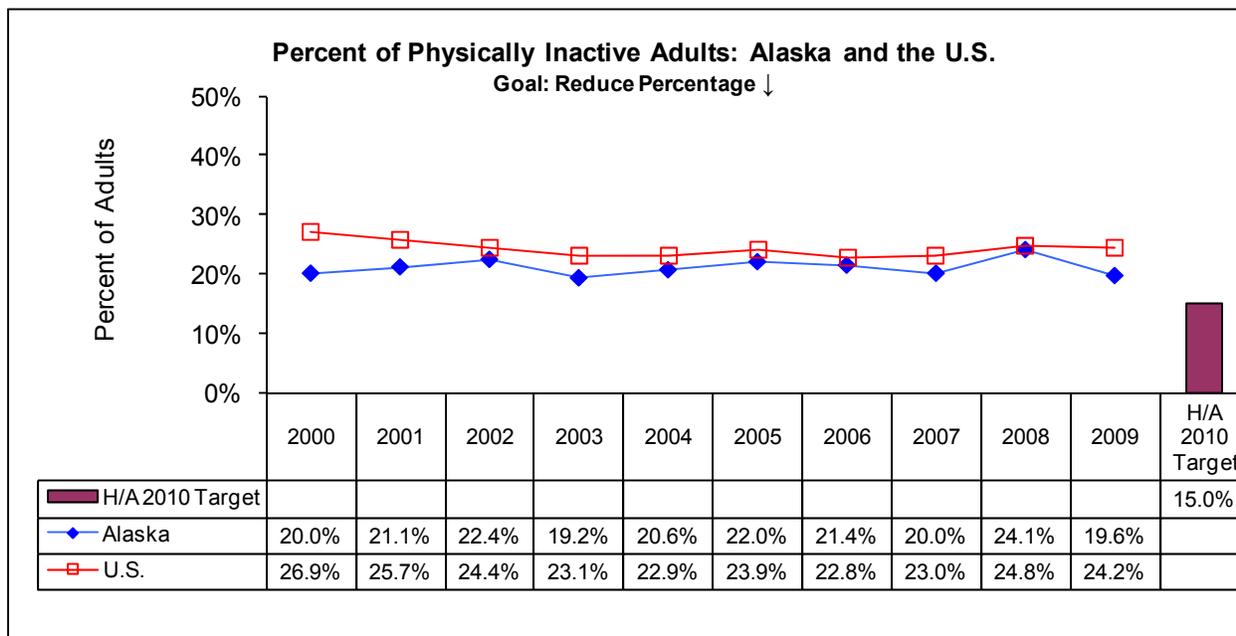
Alaska Native students are more likely to smoke than their non-Native peers; however, this disparity may be diminishing. In 2009, Alaska Native students were twice as likely as non-Native students to smoke; this was a three- to four-fold difference in 2003.

We are hopeful that these encouraging trends will continue—despite the \$31 million spent in Alaska by the tobacco industry each year. Recent Alaska Tobacco Prevention and Control Program accomplishments include reaching the CDC-recommended minimum funding level for the first time, and implementing school-based prevention efforts.

### Data Limitations

Data from the YRBS are representative only of students attending traditional public high school in Alaska. Data are self-reported and are subject to biases such as underreporting of stigmatized behaviors.

## Chronic Disease Indicator: Adults who are Physically Inactive



Data Sources: Chronic Disease Prevention and Health Promotion, BRFSS (AK); CDC, BRFSS (U.S.; 50 States, DC, and Territories)

### Current Issues and Trends

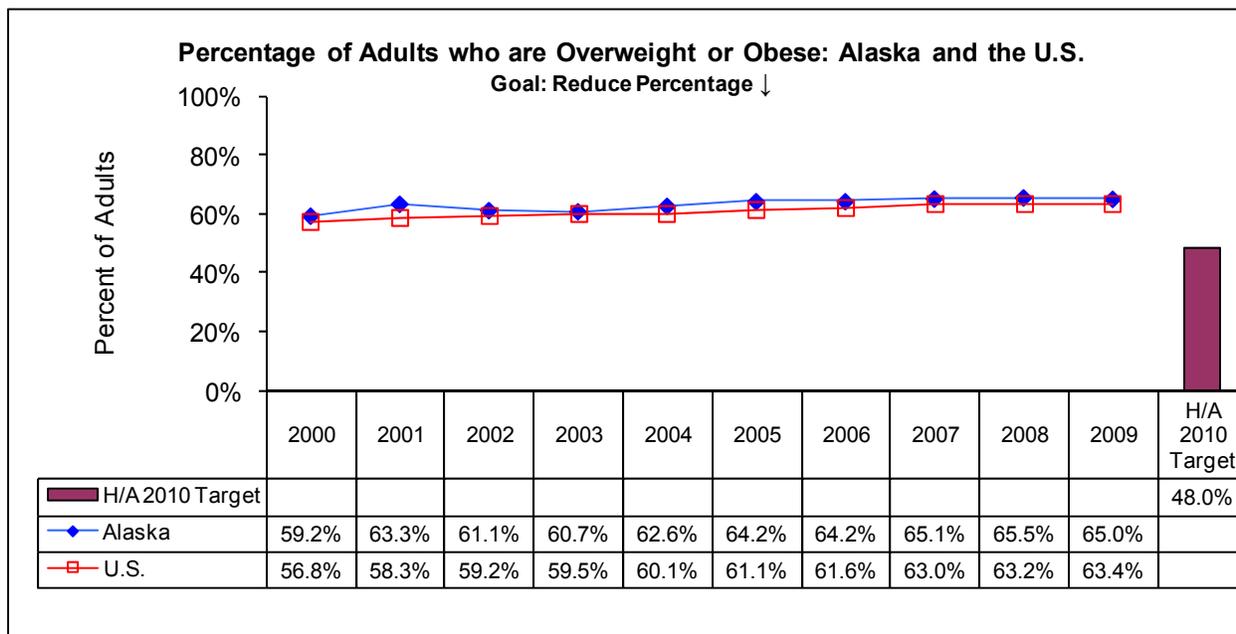
In both Alaska and the U.S., the proportion of adults who are physically inactive has remained relatively stable. In 2009, 19.6% of adult Alaskans indicated they did not participate in any leisure time physical activity. The Healthy Alaskans 2010 target of 15% has not yet been met.

Not all of the 80% of “physically active” adult Alaskans are actually meeting the levels of physical activity recommended to achieve health benefits or to keep from gaining weight. The U.S. Department of Health and Human Services’ 2008 physical activity recommendations are that adults get a minimum of 150 minutes of at least moderately vigorous physical activity each week. In 2009, 26% of adult Alaskans failed to meet this recommendation, including 9% who engaged in virtually no physical activity.

### Data Limitations

Data from the Behavioral Risk Factor Surveillance System (BRFSS): are not representative of Alaskans without landline phones (3% of the state); generally only provide statewide and large regional estimates; and are self-reports and subject to a number of potential sources of bias, including the tendency to under-report undesirable behaviors. As BRFSS data are not age-adjusted, caution is advised when making comparisons between Alaska and the U.S.

## Chronic Disease Indicator: Adults Who Are Overweight or Obese



Data Sources: Chronic Disease Prevention and Health Promotion, BRFSS (AK); CDC, BRFSS (U.S.; 50 States, DC, and Territories)

### Current Issues and Trends

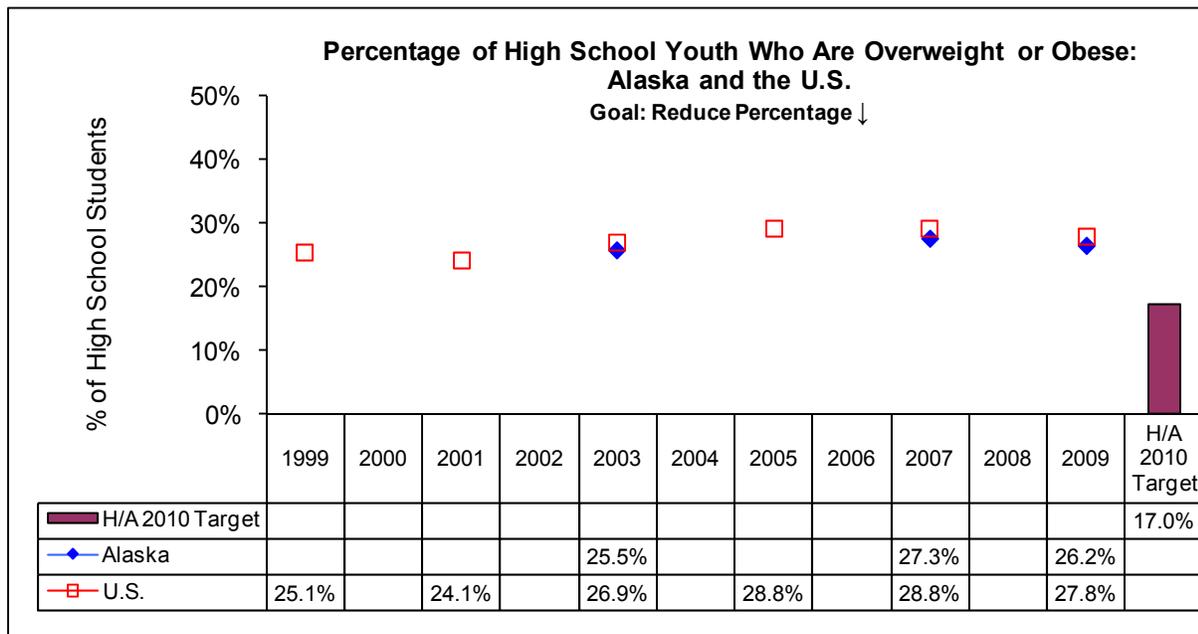
There has been a steady increase over the past decade in the proportion of adult Alaskans who are above a normal weight, defined as a body mass index (BMI) of 25.0 or higher. BMI is a function of weight (in kilograms) divided by height (in meters, squared). Individuals with a BMI of between 25.0 and 29.9 are considered to be overweight; those with a BMI of 30.0 or higher are considered obese. In 2009, 65% of adult Alaskans could be classified as either overweight or obese, up from 59% in 2000. A similar pattern is seen nationally.

There is no single Healthy Alaskans 2010 target for the combination of overweight and obesity. However, the separate targets for adult overweight (30%) and obesity (18%) can be combined to generate a target for overweight/obesity of 48%. Current rates are 17 percentage points higher than this target. It is unlikely that this 2010 target will be met.

### Data Limitations

Data from the Behavioral Risk Factor Surveillance system (BRFSS): are not representative of Alaskans without landline phones (3% of the state); generally only provide statewide and large regional estimates; and are self-reports and subject to a number of potential sources of bias, including the tendency to under-report undesirable behaviors. As BRFSS data are not age-adjusted, caution is advised when making comparisons between Alaska and the U.S.

## Chronic Disease Indicator: Percentage of High School Youth Who Are Overweight or Obese



Data Sources: Chronic Disease Prevention and Health Promotion, YRBS (AK); CDC, YRBS (U.S.)

Note: Alaska YRBS data are presented from 1999 through 2009 due the limited number of data points available.

### **Current Issues and Trends**

In 2009, 26.2% of Alaska high school students met the definition of being overweight or obese, based on data collected from the Youth Risk Behavior Survey (YRBS). Children and youth aged 2 to 20 are considered overweight if they have a gender and age-specific BMI between the 85<sup>th</sup> and 95<sup>th</sup> percentile based on 2000 Centers for Disease Control (CDC) growth charts; youth with a gender and age-specific BMI at or above the 95<sup>th</sup> percentile are considered obese.

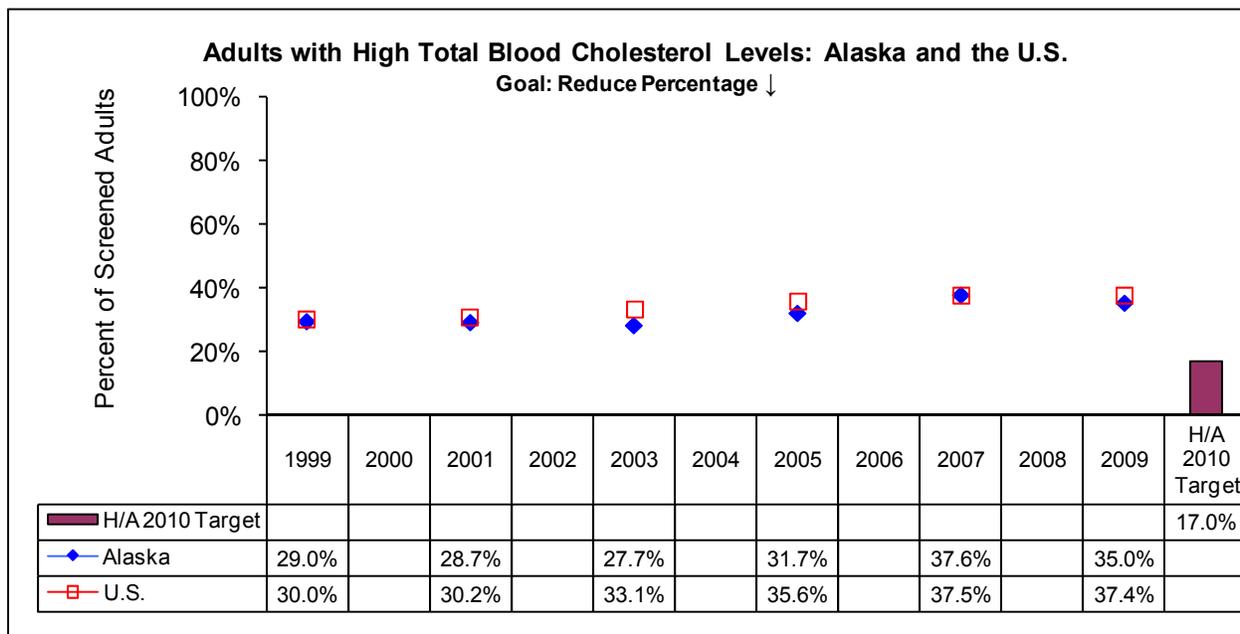
Between 2003 and 2009 there has been little change in the percentage of Alaskan high school students who were overweight or obese. This mirrors a recent leveling off of childhood obesity and overweight in the U.S.

There is no single Healthy Alaskans 2010 target for the combination of at-risk of overweight and overweight. However, the separate targets for overweight (12%) and obese (5%) among adolescents can be combined to generate a target for overweight/obese (or 'above a healthy weight') of 17%. The current Alaska rate is 54% above this target.

### **Data Limitations**

Data from the YRBS are representative only of students attending traditional public high school in Alaska. Data are self-reported and are subject to biases such as underreporting of stigmatized behaviors.

## Chronic Disease Indicator: Adults with High Blood Cholesterol Levels



Data Sources: Chronic Disease Prevention and Health Promotion, BRFSS (AK; CDC BRFSS (U.S.; 50 States, DC, and Territories)

### Current Issues and Trends

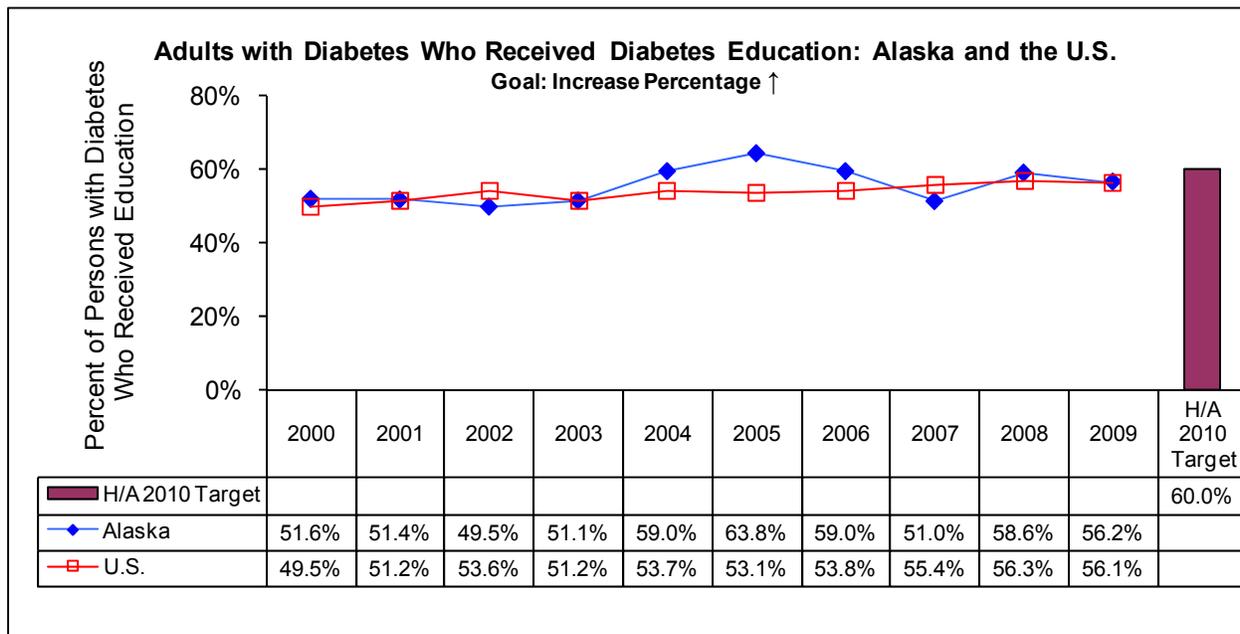
Rates of self-reported high total blood cholesterol have increased over the decade in both the Alaska and U.S. populations. In Alaska, the percentage of adults (who have been screened) reporting having been told by a doctor they had high cholesterol went from 29% in 1999 to 35% in 2009, which is double the Healthy Alaskans 2010 target.

The proportion of adult Alaskans obtaining cholesterol screenings has increased over the decade. In 1999, 37% of adults had not obtained a screening test for cholesterol in the past 5 years; by 2009, this figure was down to 29%. Alaska Natives, Alaskans living in rural areas of the state, those with lower income levels, and those with less education are less likely to report having had their cholesterol levels tested.

### Data Limitations

Data from the Behavioral Risk Factor Surveillance system (BRFSS): are not representative of Alaskans without landline phones (3% of the state); generally only provide statewide and large regional estimates; and are self-reports and subject to a number of potential sources of bias. As BRFSS data are not age-adjusted, caution is advised when making comparisons between Alaska and U.S. median prevalence. This measure underestimates true high cholesterol prevalence to the extent that adults do not access care and do not obtain the screening test.

## Chronic Disease Indicator: People With Diabetes Who Receive Formal Diabetes Education Annually



Data Source: Chronic Disease Prevention and Health Promotion, BRFSS (AK); CDC, National Health Interview Survey (1998, 1999) and BRFSS (2000-2004) (U.S.; 50 States, DC, and Territories)

### Current Issues and Trends

In Alaska, the percentage of adults with diabetes who received some diabetes education was 56.2% in 2009. This estimate has varied considerably over the past decade, likely due in large part to the small denominator. The Healthy Alaskans 2010 target for diabetes education was met only in 2005.

Much work remains to improve the status of diabetes education in Alaska. The Behavioral Risk Factor Surveillance System (BRFSS) question for this indicator assesses whether the person has *ever* received *any form* of diabetes education. Thus “diabetes education” could mean anything from a single session with a dietician to a 6-week diabetes self-management course. Since recommendations for the secondary and tertiary prevention of diabetes are continually updated, it is important that diabetes education be an ongoing process, provided by someone who has received formalized training in diabetes education. Data on who provides diabetes education in Alaska are currently unavailable; however, the small number of Certified Diabetes Educators (CDE) in the state is an indication that only a fraction of those individuals with diabetes who are receiving diabetes education are obtaining that education from a CDE.

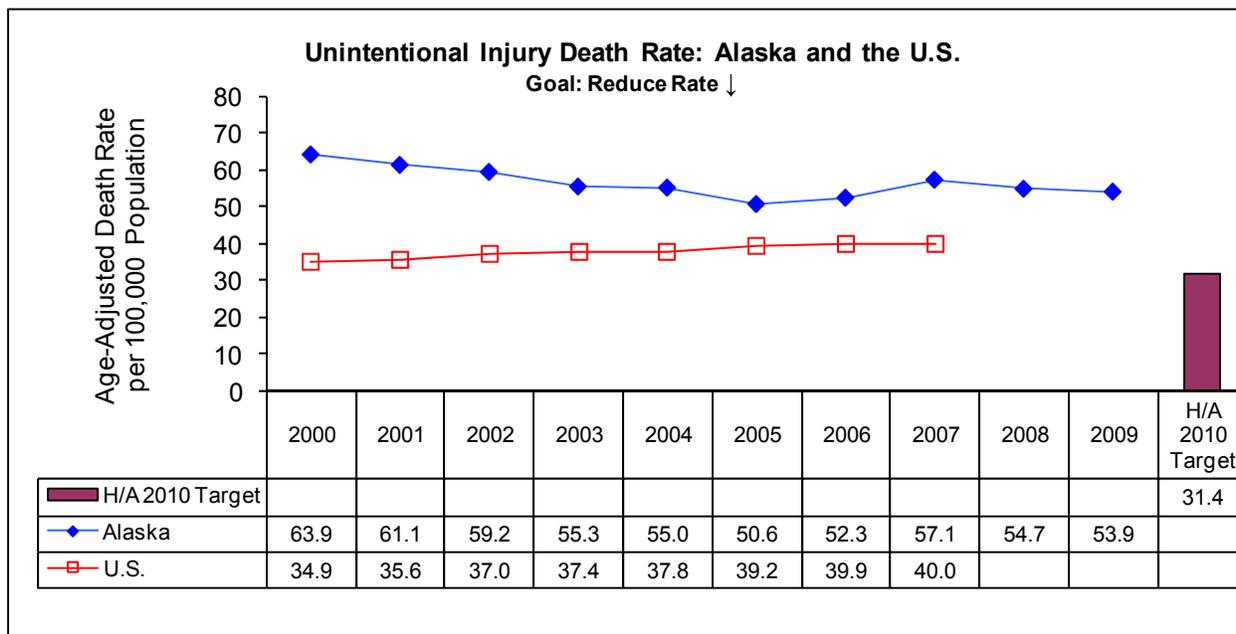
### Data Limitations

Data from the BRFSS: are not representative of Alaskans without landline phones (3% of the state); generally provide statewide and large regional estimates; and are self-reports and subject to a number of potential biases, including the tendency to under-report undesirable behaviors. As BRFSS data are not age-adjusted and U.S. figures come from the National Health Interview Survey, caution is advised when making comparisons.



## **Injury Indicators**

## Injury Indicator: Unintentional Injury Deaths



Data Sources: Bureau of Vital Statistics (Alaska); CDC-Web-based Injury Statistics Query and Reporting System (u.S.)

### Current Issues and Trends

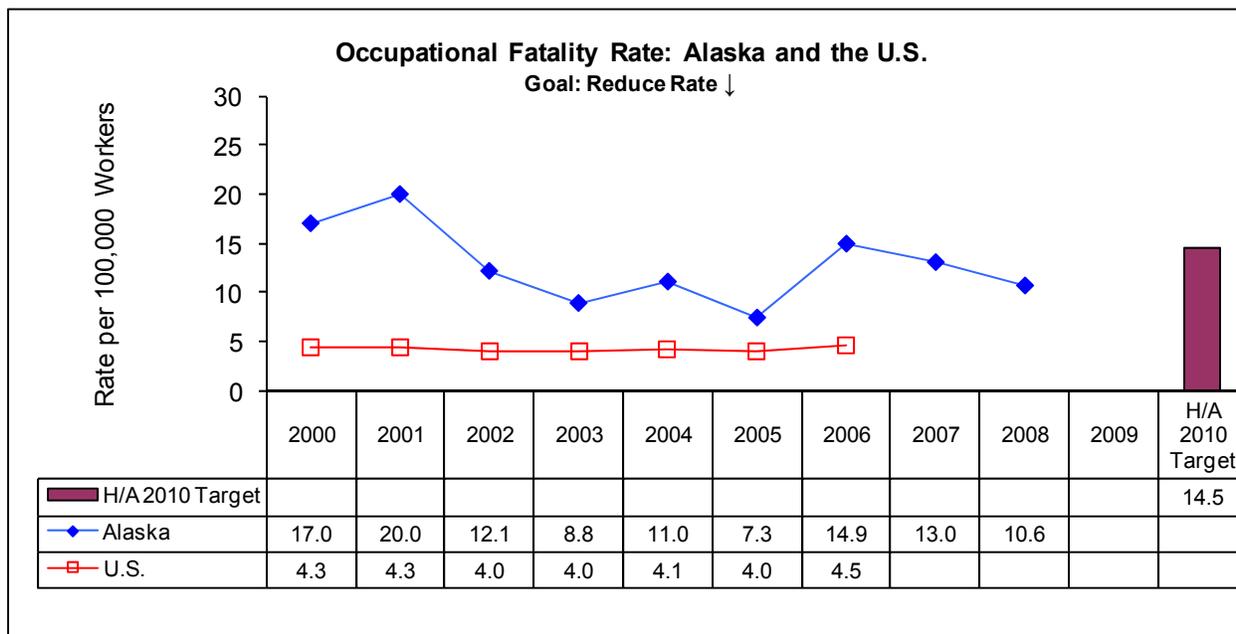
Alaska has one of the highest injury death rates in the U.S., but this rate has been decreasing over the past 10 years. Intrinsic hazards of environment and terrain impact the rate. In addition, positive long-term behavior change toward safety may also be impacting the rate; however, few Alaska-based studies are available. Several factors likely have contributed to this decline, including policy and legislation changes, enforcement of laws, changes in the engineering of cars and roads, and education for all ages.

Collaboration continues with federal, state and local programs as well as tribal health programs and other injury prevention agencies to reduce unintentional injury deaths statewide.

### Data Limitations

Compilation of accidental deaths is based on ICD-9 (E-codes) and ICD-10 coding by the National Center for Health Statistics (NCHS). Rates using the Centers for Disease Control and Prevention-Web-based Injury Statistics Query and Reporting System may be slightly different than rates reported in other publication depending on population data used as the denominator to calculate rates.

## Injury Indicator: Occupational Fatality Rate



Data Source: AK Fatality Assessment and Control Evaluation Program (AK-FACE); CDC-NIOSH Worker Health Chartbook

### Current Issues and Trends

Alaska's work-related deaths declined approximately 35% from 2000 to 2008, with a moderate increase in 2006. Since 2002, the annual occupational fatality rates have been lower than the Healthy Alaskans 2010 Target. However, the annual occupational fatality rates in Alaska through 2008 still remained higher than the U.S. rate.

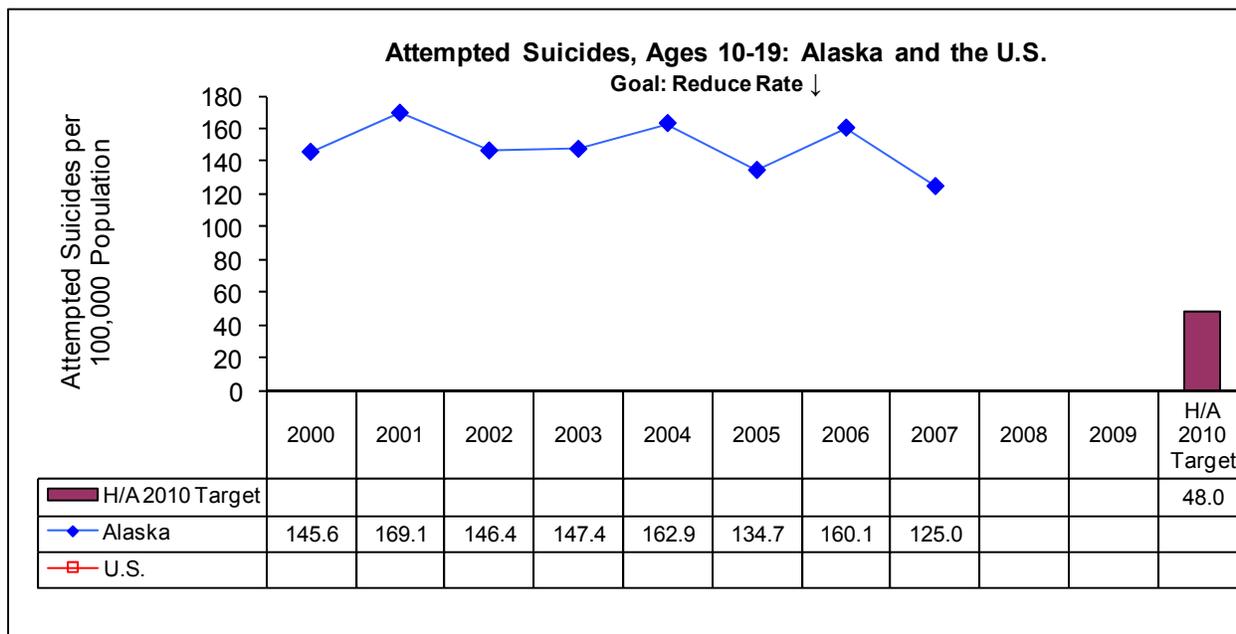
The general narrowing between Alaska and U.S. rates was briefly interrupted in 2001 and 2006 when single events with multiple worker fatalities occurred. Single events with multiple worker fatalities in Alaska's high risk industries (commercial fishing, aviation, and logging) have caused catastrophic losses in years past. In 2006 the rate peaked higher than previous years due to events with multiple worker fatalities.

It is unclear if the declining rate is a reflection of employment trends in high-hazard industries, such as reductions in commercial fishing and timber harvesting in Alaska. Because the economic forecast for 2005 through 2015 focuses on increasing levels of construction, both heavy construction and residential housing, the viability of strategic planning and current prevention interventions will be tested.

### Data Limitations

Denominator: Current Population Survey (CPS), Alaska Dept. of Labor & Workforce Development (AKDOLWD), Research and Analysis Section. Military population is based on assignment, not residence. While 2007-2008 military population data was not available, an average of the previous five years' data was used as a population estimate for rate calculations and excludes worker population estimates of commercial fishing.

## Injury Indicator: Attempted Suicides, Ages 10 – 19



Data Source: Alaska Trauma Registry

### Current Issues and Trends

Non-fatal suicide attempt rates continue to vary from year to year among Alaskan youth but demonstrate no upward or downward trend.

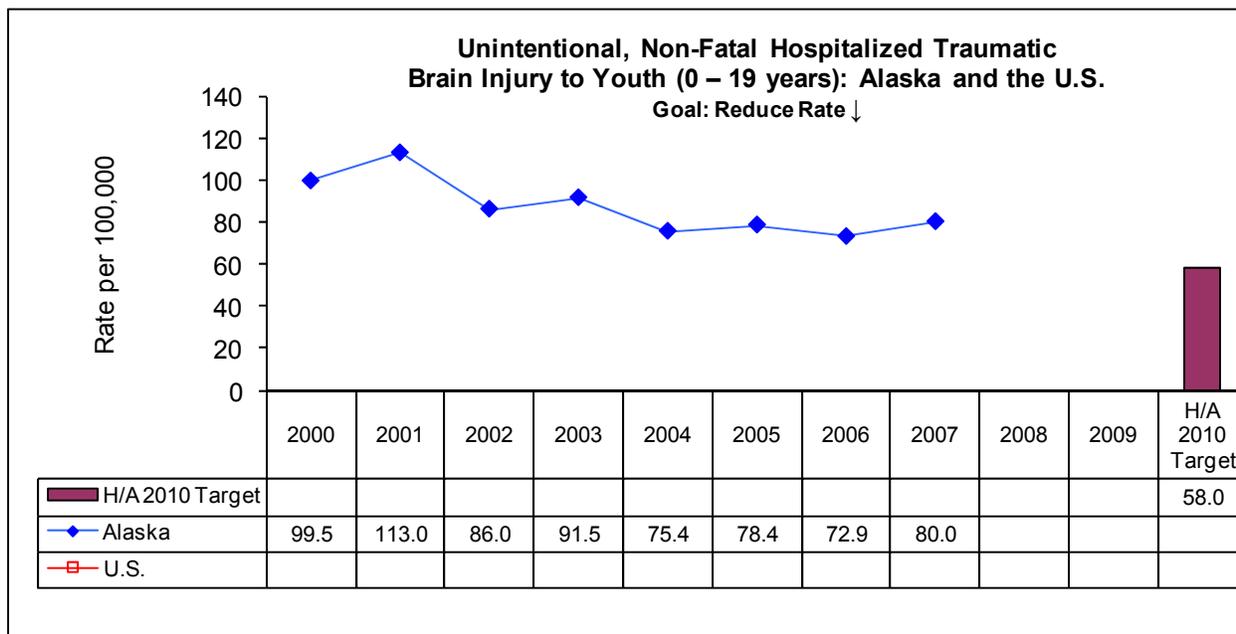
Non-fatal suicide hospitalizations can be used as a measure of the mental health status of Alaskan youth, of the high cost of neglecting this public health problem, and of access to means of self-harm. The characteristics of this group vary significantly from that of suicide completers, in demographics and intent, as well as outcome and access to lethal means.

From 2000 to 2007, 72% of the young suicide attempters were female. Of the young suicide attempters, 58% were Alaska Native, even though Alaska Natives comprise only 17.6% of this population. Eighty-one percent (81%) of the non-fatal suicide attempts recorded in the trauma registry for this age group were by poisoning. The vast majority of these poisonings involved overdose on over-the-counter or prescription medications. Of the poisoning suicide attempters, 78% were females, whereas of those using firearms, 87% were males.

### Data Limitations

Only suicide attempts causing serious enough injury to require admission to the hospital are included for this indicator. Suicide ideation only, high-risk behavior and symbolic attempts may not be counted in these numbers. There are no national data comparable to the Alaska Trauma Registry data for this indicator. Alaska data for 2008 and 2009 are still being collected.

## Injury Indicator: Unintentional, Non-Fatal Traumatic Brain Injury to Youth



Data Source: Alaska Trauma Registry

### Current Issues and Trends

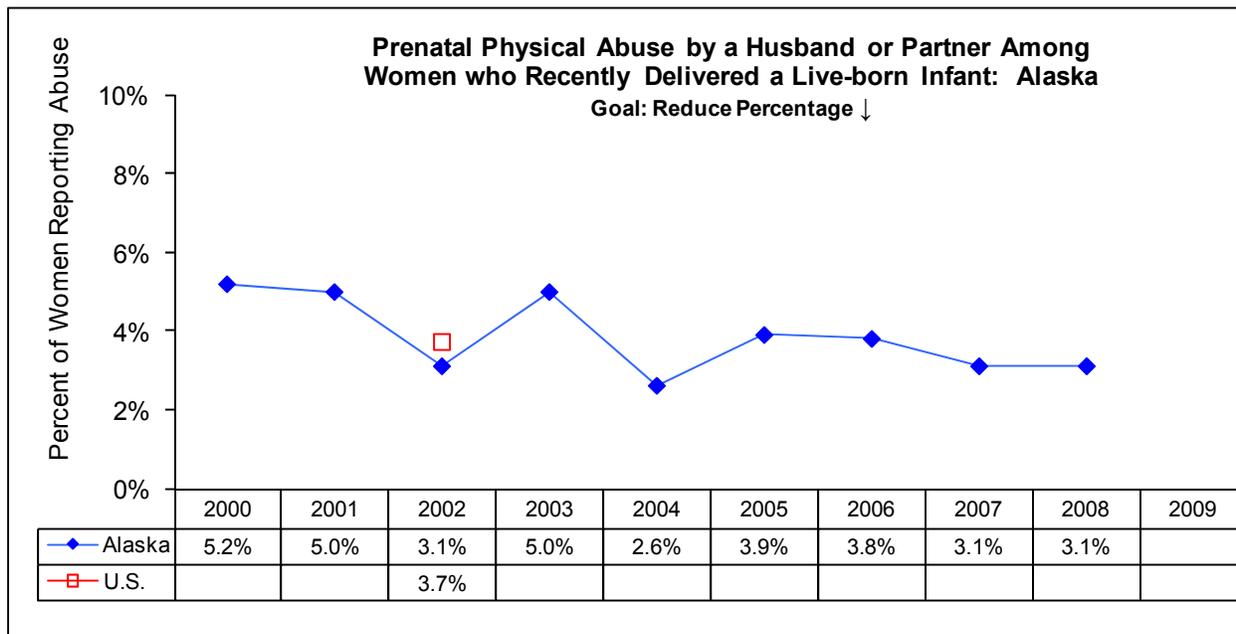
Non-fatal traumatic brain injury (TBI) rates have varied for Alaskan youth 0-19 with an annual average of 87.1 per 100,000 persons between 2000 through 2007. The acquisition of CT scanners by more of the smaller hospitals in recent years have aided with evaluating the severity of a head injury, particularly when physical injury is less evident. Patients with mild brain injury (e.g., concussion) are now discharged home instead of being transferred to another facility for diagnostic examination and evaluation, a criterion for entry into the statewide trauma registry.

With appropriate diagnoses and care, mild TBI patients may fully recover in hours or days with a small percentage having symptoms that may persist for months to years. Alaskan youth are at particularly high risk for accidental brain injuries due to the widespread use of all-terrain vehicles and snow machines. In rural Alaska, off-road vehicles are as common as the family car, but with considerably less regulatory and safety protections in place. The five leading causes of hospitalized unintentional TBI for this population are due to falls, highway motor vehicle, all-terrain vehicle, bicycle and snow machine. Alaska does not have a statewide helmet use laws for bicyclists, motorcyclists or off-road motor vehicle users.

### Data Limitations

Only the TBI patients with injury severity to require admission to the hospital are included for this indicator.

## Injury Indicator: Physical Abuse During Pregnancy By a Husband or Partner Among Women Who Recently Delivered a Live Birth



Data Source: Section of Women's, Children's and Family Health, Alaska PRAMS; U.S. data not available

### Current Issues and Trends

In 2008, 3.1% of Alaskan women who recently delivered a live-born infant experienced prenatal physical abuse by a husband or partner. There has been a very slight overall downward trend over the last ten years.

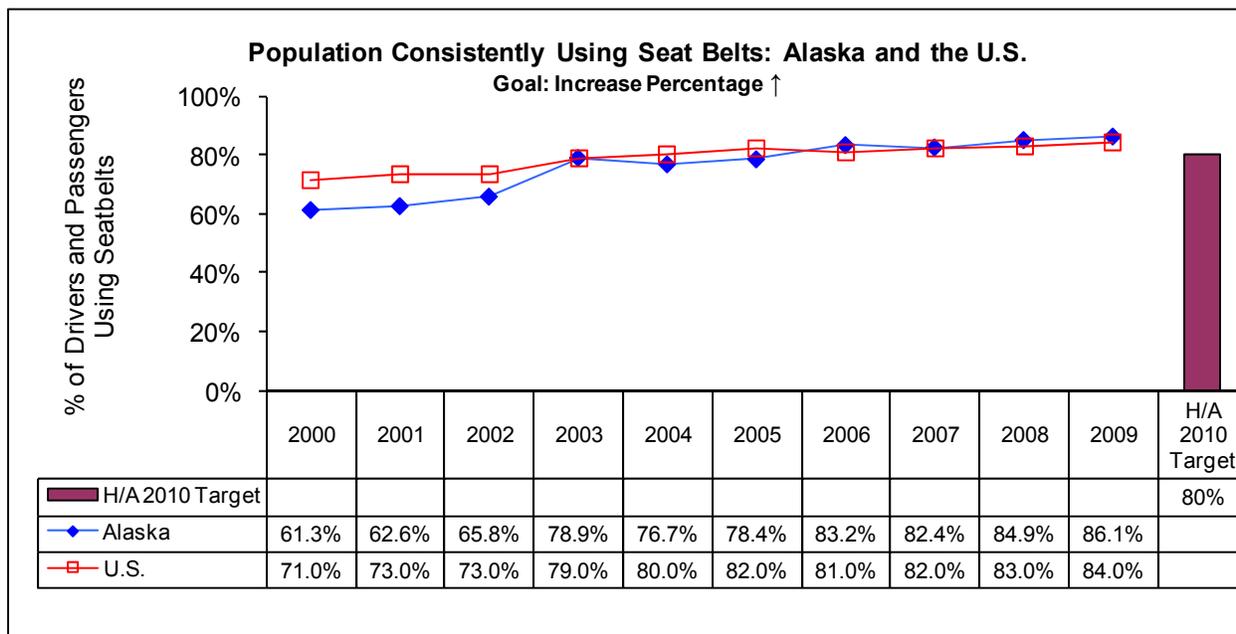
This indicator represents just a small piece of intimate partner violence. A 2010 Victimization Survey by the Justice Center at the University of Alaska Anchorage found that in 2009, 9.4% of Alaskans experienced intimate partner violence and 4.3% experienced sexual violence. Risk factors for hurting a partner include using drugs or alcohol, and seeing or being a victim of violence as a child.

There is no corresponding Healthy Alaskans 2010 indicator or target.

### Data Limitations

PRAMS data are based on sample survey data of women who recently delivered a live birth. Women with other pregnancy outcomes would not be included in these estimates. Survey responses are not verified by medical or criminal records. Alaska PRAMS data for 2009 are not yet available from the Centers for Disease Control (CDC).

## Injury Indicator: Population Consistently Using Seat Belts



Data Sources: Alaska Highway Safety Office and National Highway Transportation Safety Administration

### Current Issues and Trends

Seatbelt use by drivers and passengers in Alaska increased from 61% in 2000 to 85% in 2009, to meet and exceed the Healthy Alaskans 2010 target of 80%. Extensive awareness and education materials in addition to law enforcement campaigns may have facilitated the increase, coupled with a new primary enforcement seatbelt law that took effect in Alaska on May 1, 2006.

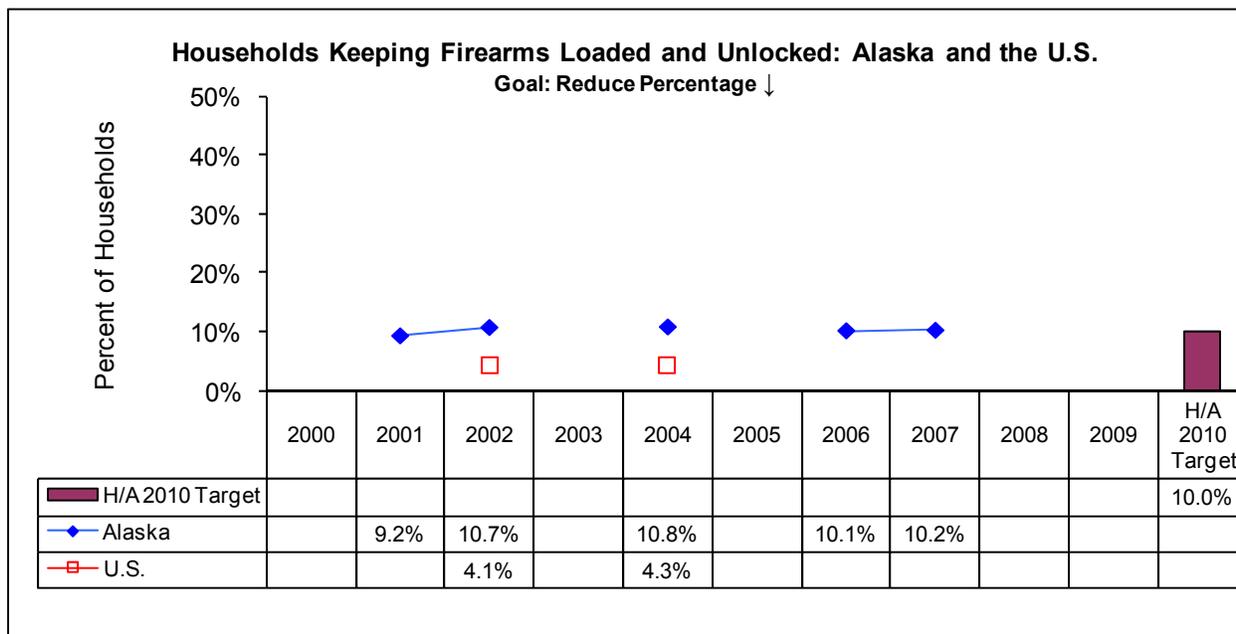
Seatbelt use remains a major instrument for preventing serious and fatal injury, but Alaska's upward trend continues to surpass national percentages.

Data is from an observational study conducted by the Alaska Highway Safety Office using the National Occupant Protection Use Survey from the National Highway Transportation Safety Administration.

### Data Limitations

While the Alaska Highway Safety Office collects this data as the result of random observation criteria, it is further supported when compared to a corresponding 39% decrease from 2004-2008 in the motor vehicle fatality rate.

## Injury Indicator: Households Keeping Firearms Loaded and Unlocked



Data Source: Alaska and U.S BRFSS

### Current Issues and Trends

Report of loaded and unlocked firearms in Alaska has not significantly changed between 2006 and 2007; the report of loaded and unlocked firearms ranged from a low of 9.2% in 2001 to a high of 10.8% in 2004. According to state and national Behavioral Risk Factor Surveillance System (BRFSS) data, reports of loaded and unlocked firearms in Alaska are more than double the U.S. rate of 4.3% (2004).

Extensive awareness and education materials in addition to a piloted gun storage program in rural Alaska and a trigger-lock campaign by law enforcement agencies may have facilitated an unreported reduction. However, firearms remain a major instrument of serious and fatal injury, both intentional and unintentional. From 2003-2008, the Alaska Violent Death Reporting System documented 734 violent deaths (e.g., suicide, homicide, accidental firearm injury, undetermined intent) involving firearms.

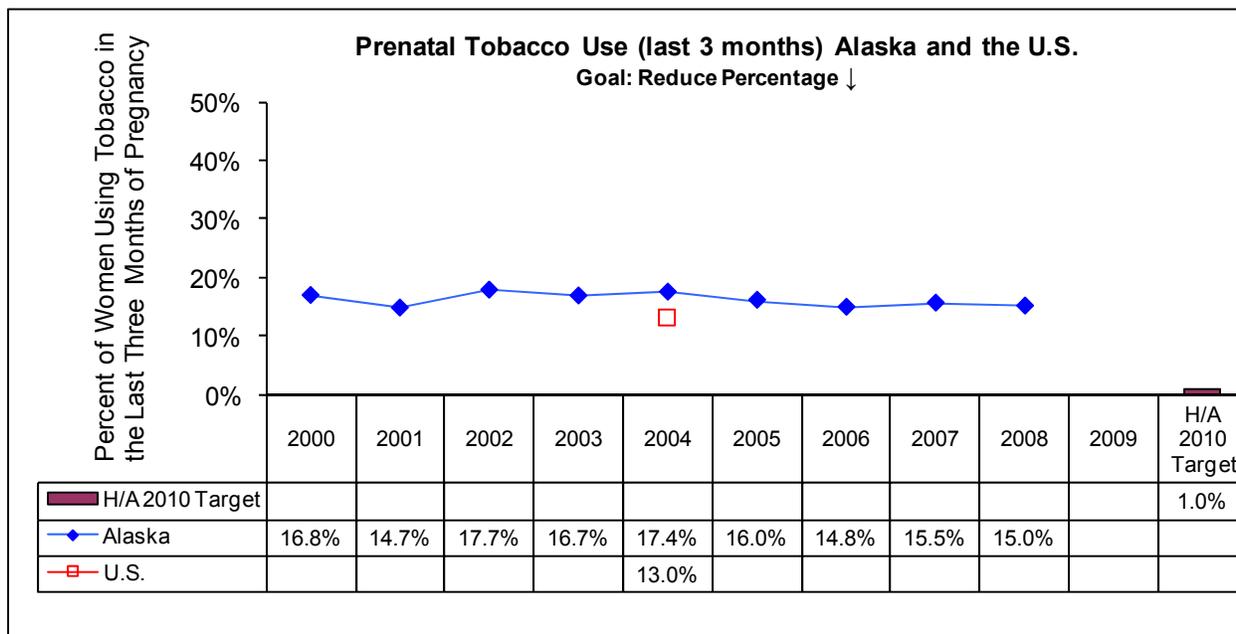
### Data Limitations

Data for this indicator was last collected in 2007 and are based on adults reporting during telephone survey. Data from this period: are not representative of Alaskans without landline phones (3% of the state); generally only provide statewide and large regional estimates; and are self-reports and subject to a number of potential sources of bias, including the tendency to under-report undesirable behaviors. Other surveillance data should be considered to assess firearm safety and safe practices.



## **Maternal, Child Health Indicators**

## Chronic Disease Indicator: Prenatal Tobacco Use



Data Source: Section of Women's, Children's and Family Health, Alaska PRAMS; U.S. data not available

### Current Issues and Trends

Prenatal cigarette smoking is the single most preventable cause of infant low birth weight and prematurity. Smoking during pregnancy is associated with infant mortality, miscarriages, preterm delivery, Sudden Infant Death Syndrome (SIDS), and respiratory problems in newborns. The prevalence of prenatal smoking in Alaska is significantly higher than the HP2010 goal of 1%.

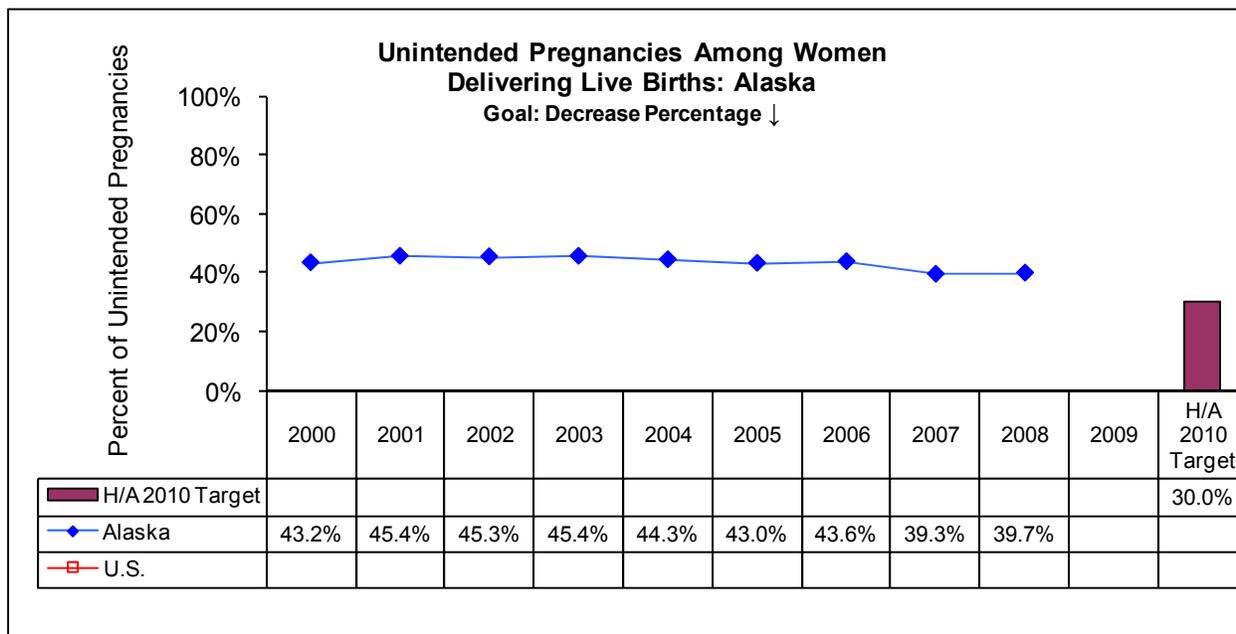
The effects of smokeless tobacco during pregnancy have been largely unstudied. A recent study indicates that prenatal smokeless tobacco use may be associated with increased risk of preterm delivery and pre-eclampsia.

Race, maternal age, education, region, and Medicaid status are significantly associated with prenatal smoking during the last three months of pregnancy.

### Data Limitations

This data is based on the Pregnancy Risk Monitoring System, an ongoing surveillance system based on random sampling. The reliability of a prevalence estimate depends on the actual, unweighted number of respondents in a category. U.S. data is for those states participating in PRAMS.

## Health Care Access Indicator: Unintended Pregnancy Resulting in a Live Birth



Data Source: Section of Women's, Children's and Family Health, Alaska PRAMS; U.S. data not available

### Current Issues and Trends

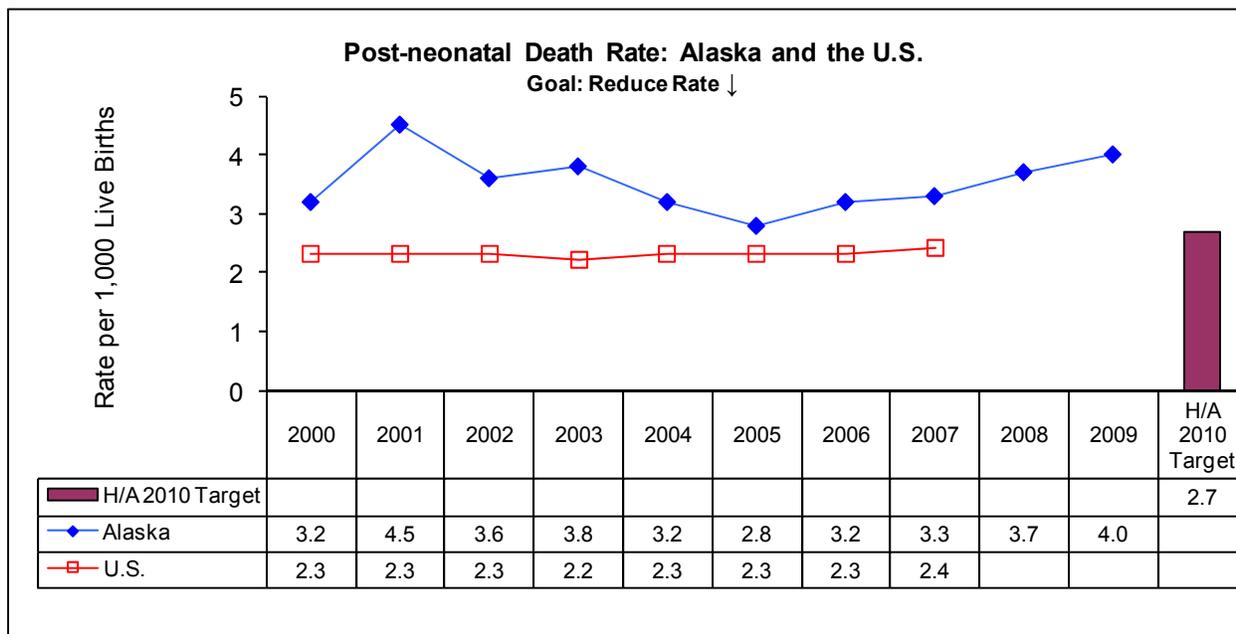
Pregnancy is considered to be unintended when the woman did not want to be pregnant or desired a later pregnancy. Women with unintended pregnancies are more likely to recognize their pregnancy at a later date and may miss the benefits of early prenatal care. Benefits include folic acid supplementation, achieving healthy weight and good oral health. More importantly, if pregnancy goes unrecognized after the third week of conception, the embryo or fetus could be exposed to teratogens - any agent that can disturb its development such as nicotine (including second hand smoke), alcohol, prescription drugs, and household and workplace chemicals.

In Alaska, the overall prevalence of unintended pregnancies resulting in live births (39.7% in 2008) has not changed significantly over the past decade. Alaska teens and Alaska Native women have higher prevalences of unintended pregnancy (65% and 51% respectively) whereas women who were in their thirties when they had their most recent baby have the lowest prevalences of unintended pregnancy (31%).

### Data Limitations

This data is based on the Pregnancy Risk Monitoring System, an ongoing surveillance system based on random sampling. The reliability of a prevalence estimate depends on the actual, unweighted number of respondents in a category. For the information presented here, unintended pregnancies are limited to those that result in a live-born infant.

## Child Health Indicator: Post-neonatal Deaths



Data Source: Bureau of Vital Statistics

### Current Issues and Trends

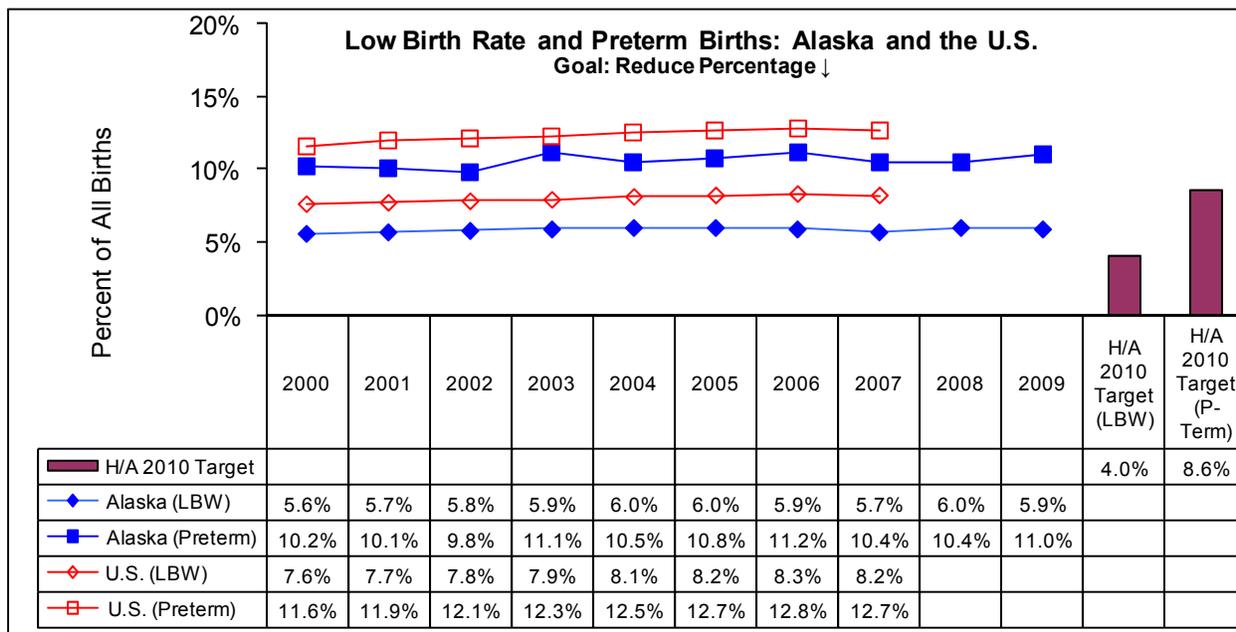
Postneonatal mortality is more often caused by environmental conditions than problems with pregnancy and childbirth. In Alaska, the leading causes of death during the postneonatal period (29 through 364 days) are sudden infant death syndrome (SIDS)/asphyxia, followed by birth defects and infections. In 2008, the postneonatal mortality rate was 33% higher than the Healthy People 2010 target.

Overall postneonatal mortality has declined over the last three decades. However, a large disparity remains between Alaska Native and non-Native infants. In 2004 and 2005, the postneonatal mortality rate for Alaska Native infants was about twice that of non-Native infants, but in 2007 and 2008 the disparity jumped to more than four fold.

The Alaska Maternal Infant Mortality Review Committee continues to review the circumstances of every infant death to determine causes of preventable deaths. The Alaska Infant Safe Sleep Initiative is developing public education messages about reducing the risk of infant death due to unintentional suffocation during sleep.

### Data Limitations

## Child Health Indicator: Low Birth Weight and Preterm Births



Data Source: Bureau of Vital Statistics

### Current Issues and Trends

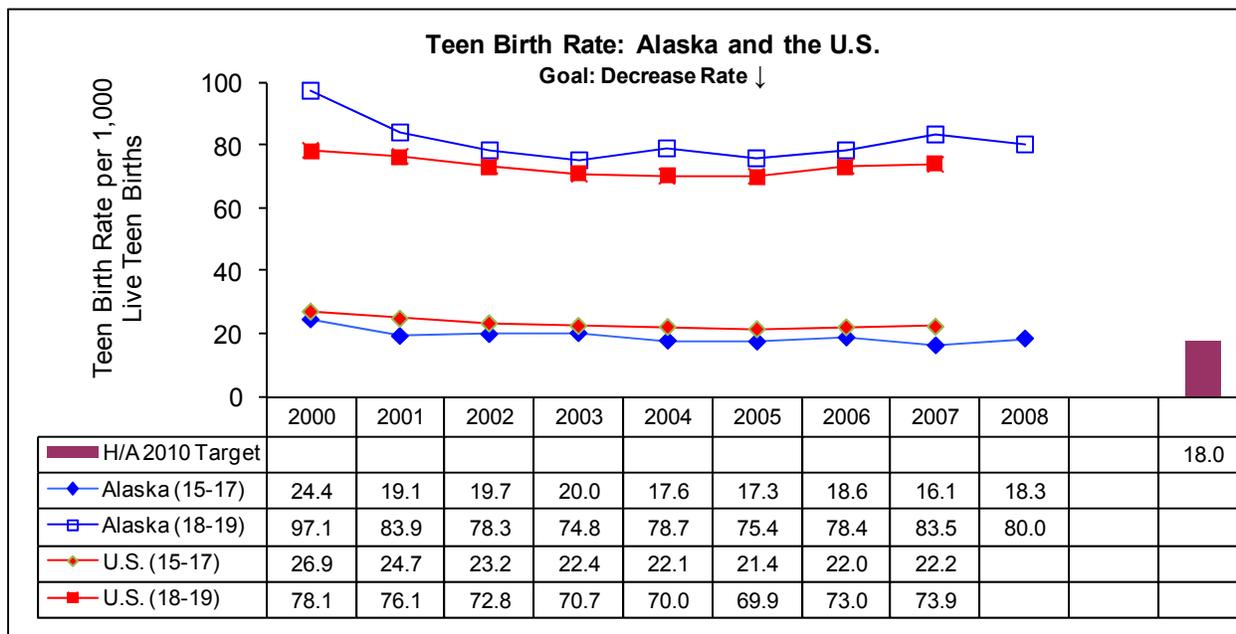
Most pregnancies last around 40 weeks and infants born between 37 and 42 weeks of pregnancy are considered full term. Preterm babies are at risk for serious health problems including cerebral palsy, lung and gastrointestinal problems, and vision and hearing loss. Risk factors associated with preterm birth include: multiple births; previous preterm delivery; stress; infection; vaginal bleeding; smoking; illicit drugs; and low pre-pregnancy weight. In addition, women less than 17 or over 35 years of age are at increased risk of premature birth.

Compared to infants of normal weight, low birth weight infants (less than 2500 grams, or 5.5 pounds) are at increased risk of impaired development such as delayed motor and social development. The majority of low birth weight infants are born preterm (less than 37 weeks gestation).

Preterm birth in Alaska, although slightly lower than the nation as a whole, was 21% higher than the Healthy Alaskans 2010 target in 2008. Preterm birth has been slowly increasing in Alaska and the nation. Most of the increase is in moderately preterm (32 to 37 weeks gestation) infants.

### Data Limitations

## Child Health Indicator: Teen Birth Rate



Data Source: Bureau of Vital Statistics

### Current Issues and Trends

Teenage mothers are less likely to receive adequate prenatal and postnatal care, and more likely to experience labor and delivery complications. Teen pregnancy is also associated with several critical social issues including poverty and income, overall child well-being, education, child welfare and out-of-wedlock births. Infants born to teen mothers are at a higher risk of prematurity, low birth weight, and infant mortality.

Over the last 15 years, Alaska teens 15-17 years old consistently experienced a lower birth rate than their U.S. counterparts while older Alaska teens 18-19 years old have consistently experienced a higher birth rate than the national average.

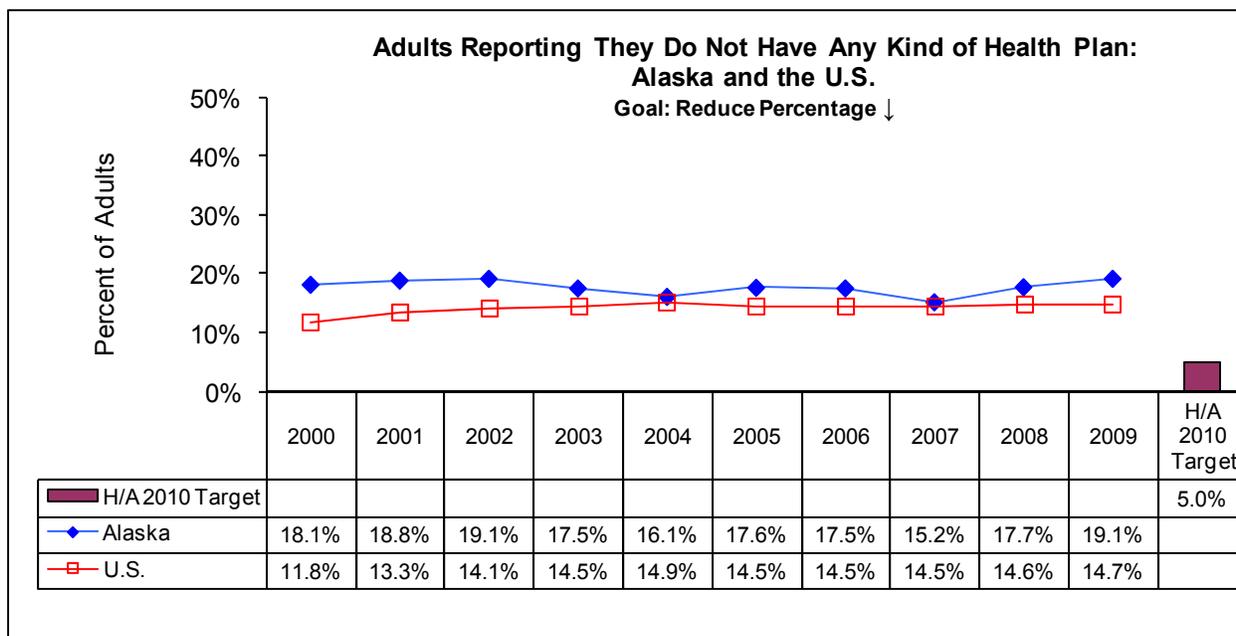
Of the 1,105 births to females aged 15-19 in 2008, 183 (17%) were to teen females who already had given birth at least once.

### Data Limitations



## **Health Care Access and Safety Indicators**

## Health Care Access Indicator: Adults Reporting They Do Not Have Any Type of Health Plan



Data Source: Chronic Disease Prevention and Health Promotion, BRFSS (AK); CDC, BRFSS (U.S.; 50 States, DC, and Territories)

### Current Issues and Trends

Over the past decade, the percentage of adult Alaskans who do not have health care coverage (including prepaid plans, government plans, or Indian Health Service) has varied modestly from year to year, with the most recent estimate being 19% (2009). The variations may be attributable to actual fluctuations in levels of coverage, or to random sampling variation. The rate has remained several percentage points higher than the U.S. rate, and has not approached the Healthy Alaskans 2010 goal of 5%.

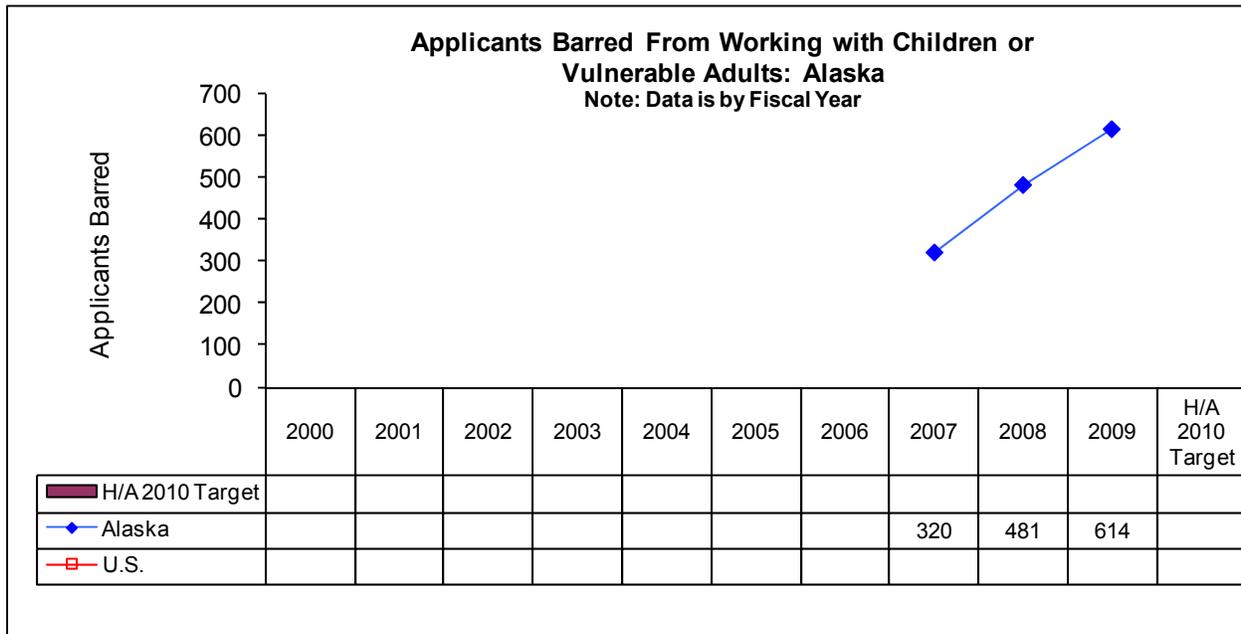
Coverage by a health care plan should be considered a crude indicator of health care access because many variables (geographic access, cost of deductibles, other restrictions of the plan) can affect whether individuals actually receive care even if they do have health coverage.

Data from 2009 show that young adult Alaskans, those with less education or income, rural Alaskans, and Alaska Natives were the least likely to have coverage. While 56% of adult Alaskans said they have one person they think of as their regular health care provider, 33% reported having no regular provider.

### Data Limitations

Data from the BRFSS: are not representative of Alaskans without landline phones (3% of the state); generally only provide statewide and large regional estimates; and are self-reports and subject to a number of potential sources of bias, including the tendency to under-report undesirable behaviors.

## Health Safety Indicator: Background Checks for Health Care Workers



Data Source: Section of Certification and Licensing

### Current Issues and Trends

Since March 2006 the Background Check Program (BCP), has processed and evaluated background check applications for entities certified, licensed and/or eligible to receive funding from DHSS and that provide critical services to vulnerable adults and children. In addition to a fingerprint based criminal history search, the background check review includes examination of a variety of civil registries.

Through FY09 the BCP processed 52,638 applications for background checks. There were approximately 16,000 name and fingerprint hits resulting in 1,421 applications with barriers. Between FY07 and FY09, the barrier determination rate almost doubled and applications having a non-barring criminal history more than doubled.

The most common barrier offenses include 4<sup>th</sup> degree assault, theft, and misconduct involving a controlled substance. The BCP has also issued barriers more serious crimes including 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> degree assault, robbery, sexual assault, sexual abuse of a minor, and murder.

### Data Limitations

The ability to capture accurate data is ongoing with continued enhancement of the Background Check Program database. Current data reflects from spring 2006 through June 2009. Individuals may have multiple applications on file with the BCP so the total number of applications barred does not reflect the number of individuals barred.

## Division of Public Health Sections Contributing to This Report

<u>Infectious Disease</u>	<u>Data</u>	<u>Program Info</u>
TB	Epi	Epi
Chlamydia	Epi	Epi
Gonorrhea	Epi	Epi
HIV prevalence	Epi	Epi
Measles	Epi	Epi
Pertussis	Epi	Epi
Hepatitis A	Epi	Epi
Hepatitis B	Epi	Epi
Fully immunized two year olds	Epi	Epi
<u>Chronic Disease</u>		
Stroke mortality	BVS	CDPHP
Hypertension prevalence	CDPHP	CDPHP
Coronary (Ischemic) Heart Disease	BVS	CDPHP
Lung cancer	BVS	CDPHP
Diabetes	BVS	CDPHP
Adult smokers	CDPHP	CDPHP
High school smokers	CDPHP	CDPHP
Adults who are inactive	CDPHP	CDPHP
Adults overweight / obese	CDPHP	CDPHP
Adolescents overweight / at risk	CDPHP	CDPHP
Adults with high cholesterol	CDPHP	CDPHP
Education for people with diabetes	CDPHP	CDPHP
<u>Injury</u>		
Unintentional injury deaths	BVS	Epi
Occupational fatalities	Epi	Epi
Attempted suicides, ages 10-19	EmerProg	Epi
Traumatic brain injury to youth	EmerProg	Epi
Pregnant women physically abused	WCFH	WCFH
Seat belt use	Epi	Epi
Firearms loaded and unlocked	CDPHP	Epi
<u>Maternal Child Health</u>		
Prenatal tobacco use	WCFH	WCFH
Unintended pregnancy	WCFH	WCFH
Post-neonatal deaths	BVS	WCFH
Low birth weights and pre-term births	BVS	WCFH
Teen birth rate	BVS	WCFH
<u>Health Care Access &amp; Safety</u>		
Pregnant women getting adequate care	BVS	WCFH
Alaskans with no health care plan	CDPHP	CDPHP
Background Checks for Health Care Workers	C&L	C&L

Key to DPH Sections: BVS = Bureau of Vital Statistics; C&L = Section of Certification & Licensing; CDPHP = Section of Chronic Disease Prevention and Health Promotion; Epi = Section of Epidemiology; EmerProg = Section of Emergency Programs; WCFH = Section of Women's, Children's and Family Health