

3. Tobacco Use

Goal:

Reduce illness, disability, and death related to tobacco use and exposure to secondhand smoke.



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Health Goal for the Year 2010: Reduce illness, disability, and death related to tobacco use and exposure to secondhand smoke.					
	Indicator	Alaska Data Source	U.S. Baseline	Alaska Baseline	Alaska Target Year 2010
1	Decrease the proportion of high school students who have used any tobacco products in the past 30 days (percent of students grades 9-12 who have smoked cigarettes or cigars or used chewing tobacco or snuff on one or more of the past 30 days).	YRBS	40% (1999)	39% (1999)	20%
	Alaska Native	YRBS		59% (1999)	20%
2	Decrease the proportion of high school students who have smoked cigarettes on one or more of the past 30 days.	YRBS	35% (1999)	34% (1999)	17%
	Alaska Native	YRBS		52% (1999)	17%
3	Decrease the proportion of high school students who have used smokeless tobacco on one or more of the past 30 days	YRBS	8% (1999)	15% (1999)	8%
	Alaska Native	YRBS		28% (1999)	8%
4	Decrease the proportion of middle school students who currently smoke cigarettes.	YRBS		21% (1999)	11%
	Alaska Native	YRBS		29% (1999)	11%
5	Increase the proportion of middle school students who never smoked a cigarette, not even one or two puffs.	YRBS		43% (1999)	64%
	Alaska Native	YRBS		27% (1999)	64%
6	Increase the proportion of 7–12 graders who disapprove of cigarettes.	YRBS (potential-2003)	8 th grade-80% 10 th grade-75% 12 th grade-69% (1998)	Developmental	
7	Increase the number of adolescents who report having positive wellness profiles, based on a composite index of protective factors for adolescent health and well being.	YRBS (potential)		Developmental	
8	Reduce the percentage of adults who smoke cigarettes (percent of persons aged 18 years and older who currently smoke cigarettes).	BRFSS	23% (1999)	27% (1999)	14%
	Alaska Native	BRFSS		42% (1999)	14%
9	Reduce the percentage of adults who use smokeless tobacco (percent of persons aged 18 years and older who currently use chewing tobacco, snuff or both).	BRFSS		5% (1999)	3%
	Alaska Native	BRFSS		12% (1999)	3%

Health Goal for the Year 2010: Reduce illness, disability, and death related to tobacco use and exposure to secondhand smoke.					
	Indicator	Alaska Data Source	U.S. Baseline	Alaska Baseline	Alaska Target Year 2010
10	Increase smoking cessation attempts among adults (percent of adults aged 18 years and older who smoke every day who quit for at least one day in the past 12 months).	BRFSS	51% (1999) NHIS ¹	60% (1999)	90%
	Alaska Native	BRFSS		64% (1999)	90%
	Low Income adults (household income <\$25,000/ year)	BRFSS	53% (1999)	72% (1999)	90%
11	Increase smoking cessation attempts among adolescents (percent of high school students grades 9–12 who smoked on 20 or more of the past 30 days who have ever tried to quit).	YRBS		40% (1999)	60%
	Alaska Native	YRBS		42% (1999)	60%
12	Increase the percentage of pregnant smokers who quit smoking during the first trimester of pregnancy and remain smoke-free throughout the pregnancy.	PRAMS	31% (1991)	30% (1998)	45%
13	Reduce the proportion of children exposed to tobacco smoke at home (percent of households in which someone has smoked in the past 30 days and at least one child aged 0 to 4 years lives in the home).	BRFSS	27% (1994) 0-6 year olds NHIS ²	23% (1998)	12%
14	Increase the proportion of people who work in smoke-free environments.	BRFSS (potential)		Developmental	

¹ US data here are BRFSS national median for 1999. Healthy People uses NHIS, and a different definition.

² BRFSS and NHIS from Healthy People 2010 have different definitions. NHIS is percent of children, and BRFSS is percent of households. There is also a difference in age categories.

YRBS - Alaska Youth Risk Behavior Survey. Alaska sample for 1999 did not include Anchorage. High school data for 1999 are weighted and representative of the state student population excluding Anchorage.

BRFSS - Alaska Behavioral Risk Factor Surveillance System. All US BRFSS data are age-adjusted to the 2000 population; the Alaska BRFSS data have not been age adjusted, so direct comparisons are not advised.

PRAMS - Alaska Pregnancy Risk Assessment Monitoring System

NHIS - National Health Interview Survey

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Overview

Since the first United States Surgeon General’s report on smoking and health was published in 1964, more than 10 million Americans have died from smoking-related causes. Tobacco is the greatest risk factor for all cancers combined and is the single leading preventable cause of cancer.¹ Smoking causes more premature deaths than do all of the following combined: cocaine, heroin, alcohol, fire, motor vehicle crashes, homicide, and suicide.² Researchers have identified more than 4,000 chemicals in tobacco smoke; of these, at least 43 cause cancer in humans and animals. Cigarette smoking causes heart disease, several kinds of cancer (lung, larynx, esophagus, pharynx, mouth, and bladder), and chronic lung disease. Cigarette smoking also contributes to cancer of the pancreas, kidney, and cervix. Smoking during pregnancy can cause spontaneous abortions, low birth weight, and sudden infant death syndrome.³

Other forms of tobacco are not safe alternatives to smoking cigarettes. Use of spit tobacco causes a number of serious oral health problems, including cancer of the mouth and gum, periodontitis, and tooth loss. Cigar and pipe use cause cancer of the larynx, mouth, esophagus, and lung.³

Secondhand smoke, also called environmental tobacco smoke (ETS), leads to disease, including lung cancer and heart disease in non-smokers and respiratory illness in young children. Respiratory health effects of ETS exposure in children include middle ear infections, asthma, bronchitis, and pneumonia. In Alaska, it is estimated that 60 people die every year from illness and disease caused by secondhand smoke.⁴

Youth are at increased risk of starting tobacco use. Socio-demographic risk factors include coming from a family with low socio-economic status. Environmental risk factors range from accessibility and availability of tobacco products, to cigarette advertising and promotion, price of tobacco products, perceptions of tobacco use as normal, peers’ and siblings’ use and approval, and lack of parental involvement. Personal risk factors include lower self-esteem than peers, the belief that tobacco use provides a benefit, and the inability to refuse offers to use tobacco.³ Research indicates that children and adolescents whose developmental needs are met and who are doing well in the world are more likely to choose not to smoke or chew tobacco.⁵

Issues and Trends in Alaska

More than one out of four Alaskans are addicted to tobacco. Nearly one-half of these people will die prematurely as a result of their addiction. Non-smokers, including many children, are routinely exposed to tobacco smoke, jeopardizing their health.⁶

Alaska has one of the highest smoking rates in the United States, similar to those of the tobacco growing states. Alaska Natives have even higher smoking rates (Table 3-1).

Table 3-1

Current Smoking among Alaskan Adults by Race/Ethnicity: 1991-1999		
Race/Ethnicity	Adults who are current smokers	
	Percent	95% Confidence Intervals
White	25	24–26
African-American	22	15–28
Alaska Native	42	40–45
Asian or Pacific Islander	20	14–25
Hispanic*	23	18–28

Source: Alaska Behavioral Risk Factor Surveillance System 1991–1999
**Hispanic can be of any race*

Tobacco use is responsible for approximately one in five deaths of all Alaskans and is the single most preventable cause of death and disease. Alaska Natives suffer 23.2 percent of smoking related deaths, although they comprise only 16.5 percent of the state’s population. This disproportionate rate of smoking-related deaths is due to extremely high rates of tobacco use in the Alaska Native population.

The highest smoking rate is consistently found in the rural regions of the state (Table 3-2).

The federal Centers for Disease Control and Prevention estimate that 32 percent of youths who become regular smokers will die prematurely of a smoking-related illness.⁷ Nearly 18,000 Alaskans under the age of 18 alive today will eventually die from tobacco caused illness unless current trends are reversed.⁸

Overwhelming evidence indicates that nicotine found in tobacco is addictive and that addiction occurs in most smokers during adolescence.³ Over 57 percent of mid-

Table 3-2

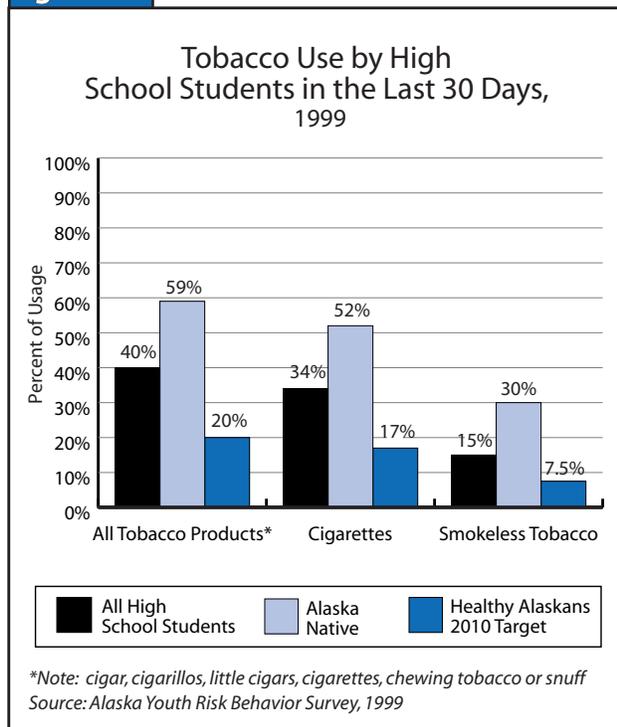
Current smoking among Alaskan Adults by Region: 1999		
Region	Adults who are current smokers	
	Percent	95% Confidence Intervals
Anchorage and vicinity	25	[19-31]
Fairbanks and vicinity	28	[23-33]
Gulf Coast	29	[23-34]
Southeast	27	[21-32]
Rural	38	[32-45]

Source: Alaska Behavioral Risk Factor Surveillance System 1991-1999

dle school students (grades 7 and 8) responded that they have tried smoking at least once. Thirty-three percent of high school students responded that they were 12 years old or younger and 50 percent said they were 14 years or younger when they smoked a whole cigarette for the first time.⁹ The cigarette smoking rate among Alaska’s high school students during 1999 was 33.9 percent, similar to the United States’ rate of 34.8 percent.

Rates for high school tobacco use are much higher among Alaska Natives than among other ethnic groups (Figure 3-1).

Figure 3-1



Since passage of a \$0.71 per pack cigarette tax increase in 1997, taxable cigarette consumption has decreased by 16 percent, which has persisted for two years. Sales of other tobacco products have also declined, and tax revenue to the state from the sale of cigarettes and other tobacco products tripled.

Tobacco kills half of all long-term users and costs the state over \$150 million a year in medical expenses.⁶ Alaska, like all states and territories in the United States, is faced with the daunting challenge of reducing and eliminating this overwhelming health hazard. Other states, including California, Massachusetts, Florida, and Oregon, which have made a serious commitment to fighting tobacco use, show significant reductions in the number of adults who smoke and number of children who start smoking.¹⁰

Preliminary data is showing that Alaskans are increasingly aware of the dangers of tobacco exposure and are more readily seeking tobacco free environments. Two Alaska communities, Bethel and Anchorage, passed clean air ordinances through the efforts of the Alaska Tobacco Control Alliance (ATCA) and local coalitions.

The Centers for Disease Control and Prevention (CDC) studied these successful state programs and found that effective anti-smoking programs can be expected to pay for themselves by reducing the number of low birth weight babies and by cutting the incidence of heart disease.¹⁰ As a result of their studies, CDC recommends that states establish comprehensive and sustainable tobacco control programs which utilize community partnerships.¹⁰

Current Strategies and Resources

Alaska Tobacco Prevention and Control Program

The Alaska Tobacco Control Alliance (ATCA) was formed in 1992 and is a statewide coalition of over 170 organizations and individuals. Its purpose is to encourage, coordinate, and support effective methods for preventing tobacco use by children and discouraging use by adults. A priority of ATCA is to influence public policy decisions related to tobacco use.

The long-term vision embraced by the ATCA is to significantly reduce the illness, disability, and death related to tobacco use and exposure to secondhand smoke among all population groups in Alaska. To ac-

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compish this, the state must establish and fund a comprehensive prevention and control plan that will:

- Prevent the initiation of tobacco use among young people.
- Promote cessation of tobacco use among young people and adults.
- Reduce nonsmoker’s exposure to secondhand smoke (environmental tobacco smoke or ETS).
- Reduce disparities experienced by population groups (Alaska Natives, rural, low income, and youth) relative to tobacco and its use.

The following nine components are the Centers for Disease Control and Prevention’s best practices for comprehensive tobacco control programs. These strategies have been adopted by ATCA as part of their Alaska Tobacco Prevention and Control Program. More detail about each of the components can be found in Alaska Tobacco Prevention and Control Plan 2000-2010.

Table 3-3

Nine Components of the Centers for Disease Control and Prevention’s Best Practices for Comprehensive Tobacco Control Programs		
1	Community Programs to Reduce Tobacco Use	Local programs are developed to change attitudes and behaviors about tobacco use. In Alaska, community programs are supported by four regional grants and individual grants to seven communities.
2	Chronic Disease Programs to Reduce the Burden of Tobacco-Related Diseases	As part of a comprehensive program, public attention is focused on tobacco related diseases (e.g., cardiovascular disease and asthma prevention) to prevent and detect disease.
3	School Programs	School based programs promote tobacco free school policies, school curriculum, staff training, parent and family involvement, and cessation support. In Alaska, local grantees are responsible for coordinating school-based programs and state programs provide materials and resources through a lending library.
4	Enforcement	Tobacco control policies and laws are enforced in Alaska, especially those related to youth access. Alaska has been using limited state general funds to conduct federally mandated retailer compliance checks to monitor the rate of illegal tobacco sales to minors. Alaska is currently out of compliance with the federal mandate and is developing a combined compliance and enforcement plan to reduce youth access to tobacco products.
5	Statewide Programs	State programs are coordinated with external partners to expand program outreach including: networking, communication, technical assistance, and research services. The statewide effort includes funding statewide training, technical assistance, and supporting the development and implementation of culturally appropriate interventions.
6	Cessation Programming	Counseling and pharmaceutical support for smokers when they are ready to quit and for community-based projects and media campaigns to motivate smokers to quit. Alaska’s TPC program administers a grant to the American Lung Association of Alaska (ALAA) for four community-based cessation pilot projects. ALAA is also implementing training for health care providers on how to assist tobacco users to break their addiction.
7	Counter-marketing	These efforts use paid media to counter the \$6 billion tobacco industry marketing and promotion campaigns. The ALAA uses a state grant to coordinate Alaska’s counter-marketing campaign. State staff assist this effort through coordination with community partners and evaluation criteria to determine effectiveness of campaigns.
8	Surveillance and Evaluation Program	Surveillance and evaluation are the sole means to establish program accountability. Evaluation means defining, collecting analyzing, and reporting of data. Surveillance is the monitoring of behaviors, attitudes, and health outcomes at regular intervals.
9	Administration and Management	A strong public health initiative requires a strong management structure to coordinate program components and collaborate with multiple agencies, organizations, and community groups. In addition, a strong public health initiative must have well defined goals, objectives, and performance indicators to determine the effectiveness and value of programming.

Funding and Program Support

The Centers for Disease Control and Prevention developed program and funding recommendations for all States and territories. These recommendations are based on statistical assessments derived from the on-going funding investments and successes in those states with effective programs. The CDC recommended funding levels for the State of Alaska is \$8.1-\$16.5 million or approximately \$4.31 per capita. As of State Fiscal Year 2001, total spending for tobacco prevention and control efforts in Alaska is around \$3 million. This amounts to just over a third of the recommended support to make a substantial impact on tobacco use and related death in Alaska. With the assistance of ATCA strategic planning efforts, the fund has been stretched to cover parts of the nine components of a comprehensive program.

The degree of change in tobacco use that Alaska can expect is directly proportional to the amount of resources (i.e., funding, staffing, and aggressive tobacco control program efforts) put into place. It will be extremely difficult to detect change in tobacco use/prevalence in Alaska, as large sample sizes are required to document this occurrence and without adequate funding such data cannot be collected. At a higher funding level, more change in these indicators can be expected and measurable.

Alaska Native Health Initiatives

Tribal health organizations are active participants in ATCA but are also involved in a variety of prevention and cessation programs specifically for Alaskan Natives. The Alaska Native Health Board's programs include "Trampling Tobacco" and "Challenge to Quit". The Board presented "The Smokefree Air Series" at the 2001 Alaska Tribal Conference on Environmental Management.

Regional Native health organizations have created many culturally appropriate programs and materials. The Yukon-Kuskokwim Health Corporation, for example, has developed printed materials about the risks of the smokeless tobacco products widely used in western Alaska. Former users are trained as counselors and offer cessation programs.

Tribal health programs for cardiovascular health and adolescent health also stress abstinence from tobacco. "Strong Heart" from the Alaska Native Tribal Health Consortium includes education on smoking

cessation. The South East Regional Health Corporation includes tobacco prevention in the "Seven Circles" program for adolescents.

Data Issues and Needs

In October 2000 the Gallup Organization published a report, *A Strategic Evaluation Plan for the Alaska Prevention and Control Program*, which reviews Alaska's data needs and issues. The following information is based on their recommendations.

Gallup concluded that reliable data on tobacco use and prevalence and related knowledge and attitudes among the Alaskan population is limited. The data sets which are available are very limited in their documentation of a tobacco use problem in Alaska. The limited scope of the existing youth data prompts concern for relying on sparse data to measure impacts of future tobacco control programs. There are even greater limitations on data availability for Alaskan Natives.

Consistent with the CDC best practices guidelines, ATCA has recognized the importance of incorporating data collection and evaluation as an integral part of ongoing tobacco control program design and implementation activities. Of special concern is a general lack of high quality data regarding Alaska tobacco use, knowledge and attitudes. This is especially the case regarding Alaskan youth.

The main data source on youth tobacco use is the Youth Risk Behavior Survey (YRBS). It was conducted in 1995 and 1999, and Anchorage did not participate in the 1999 survey. The relatively small sample size, given our small population, makes establishing meaningful confidence intervals and trend data problematic. The ability to detect meaningful changes in such attitude objectives as "want to quit" is especially difficult, yet these objectives are very important for evaluating and refining prevention and cessation activities.

The Behavioral Risk Factor Surveillance System (BRFSS) has been conducted annually since 1991 and surveys adults aged 18 and older. The survey has only eleven questions on tobacco use, knowledge and attitudes and these vary by survey year. Therefore, year to year comparison on these eleven questions is not always possible.

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There are a number of ways that Alaska can address the gap of limited youth data. In order to effectively set and monitor our tobacco prevention and control goals and activities, the most immediate need is to establish statewide support and adequate resources for conducting the YRBS on schedule every two years.

Additional tobacco related questions could be added to the Alaska YRBS when it is next administered. Furthermore, adding questions to the YRBS that form a “protective factor index,” would be extremely helpful in determining the number of adolescents who report having positive wellness profiles. These adolescents are considered more protected from engagement in health risk behaviors, such as tobacco use. Some studies have demonstrated that resilience factors, also referred to as protective factors or developmental assets, can predict change in adolescents’ health related behaviors over time.¹¹

The Pregnancy Risk Assessment Management System (PRAMS) was initiated in 1990. Four tobacco use questions were included in 1990, one question on ETS exposure was added in 1996, and three questions related to smoking cessation were added in 2000. As with the BRFSS, its administration limits comparability of questions over time and it also utilizes small sample sizes.

Although sampling has been used within BRFSS to track smoking prevalence in Alaska Native populations, there are very limited data on tobacco use and related behaviors among adult Alaskan Natives residing in rural areas of Alaska. Culturally sensitive data collection methods, such as door-to-door canvassing and using appropriate language translations for non-English speaking Alaskans, are necessary in future surveys.

Surveys should include questions to capture use of traditional smokeless tobacco preparations. Iq’mik, a mixture of tobacco leaves and “punk ash” made from a fungus that grows on trees, is used as a “chew” by Alaska Natives in some regions, especially western Alaska. The alkaline ash is believed to increase nicotine absorption from the tobacco. It is estimated that 50 percent of the population of the Yukon-Kuskokwim Delta uses iq’mik, including most women of childbearing age.¹² Most iq’mik users do not smoke cigarettes, and questions about smoking behavior may underestimate tobacco use in this population.

Culturally sensitive data collection methods could be implemented in rural and bush areas. An adult longitudinal “panel study” could be conducted to track individuals over time, as was recommended with the youth longitudinal study. Such a study could be conducted annually and be a subset of a larger adult study.

To address these gaps in adult data, Gallup recommends that the tobacco specific questions module (i.e., questions from the CDC’s Adult Tobacco Survey) could be added to the BRFSS. This would provide additional information on tobacco related knowledge and attitudes beyond the 11-question module that currently exists. Following the CDC protocol, the sample would provide an adequate sample size for Alaska to report statewide data with confidence.

Related Focus Areas

Objectives in other *Healthy Alaskans* chapters are linked to objectives in *Tobacco Use*:

- *Oral Health*
- *Maternal Child Health*
- *Heart Disease and Stroke*
- *Cancer*
- *Respiratory Diseases*

In *Maternal, Child and Infant Health*, pre-term births and infant deaths are associated with tobacco use. Decreasing tobacco use will reduce the prevalence of many cancers mentioned in *Cancer* (overall cancer deaths, lung, cervical, bladder, pancreatic, and oropharyngeal cancers). *Oral Health* also has indicators for early detection of oral and pharyngeal cancers associated with tobacco use. Coronary heart disease deaths and stroke deaths are two indicators in *Heart Disease and Stroke* that are associated with tobacco use. Tobacco causes Chronic Obstructive Pulmonary Disease and may cause or trigger asthma, illnesses addressed in *Respiratory Diseases*.

Endnotes

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- ¹¹ Jessor, R. et al., (1995). Protective factors in adolescent problem behavior: Moderator effects and developmental changes. *Developmental Psychology* 31(6): 923-933.
- ¹² Nevak, Caroline. The Great American Smokeout radio event. YKHC Messenger, December 2001.

References and Sources

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Municipality of Anchorage Smoking and Public Places	www.muni.org/smoke
American Lung Association - Alaska	www.aklung.org/index2.htm

National

National Tobacco Information On-Line System (NATIONS)	www.cdc.gov/tobacco/stat-nat-data.htm
American Cancer Society	www.cancer.org/
American Heart Association	www.americanheart.org
Surgeon General's Report Tobacco Cessation	www.surgeongeneral.gov/tobacco/

Chapter Notes

