Health Risks in Alaska Among Adults

Alaska Behavioral Risk Factor Survey

1999 Annual Report

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Introduction

In recent years, both health professionals and the general public have shown increased interest in how behavioral changes can reduce a person's risk for developing health problems. This interest results from growing evidence that lifestyle strongly influences health. Behaviors linked to health problems are referred to as behavioral risk factors, and they include such things as cigarette smoking, being overweight, alcohol use, having a sedentary lifestyle, poor diet and more.

Behavioral risk factors are associated with the ten leading causes of death in the United States and Alaska. Many chronic diseases (such as heart disease, cancer and diabetes) and premature deaths could be prevented through better control of these behavioral risk factors.

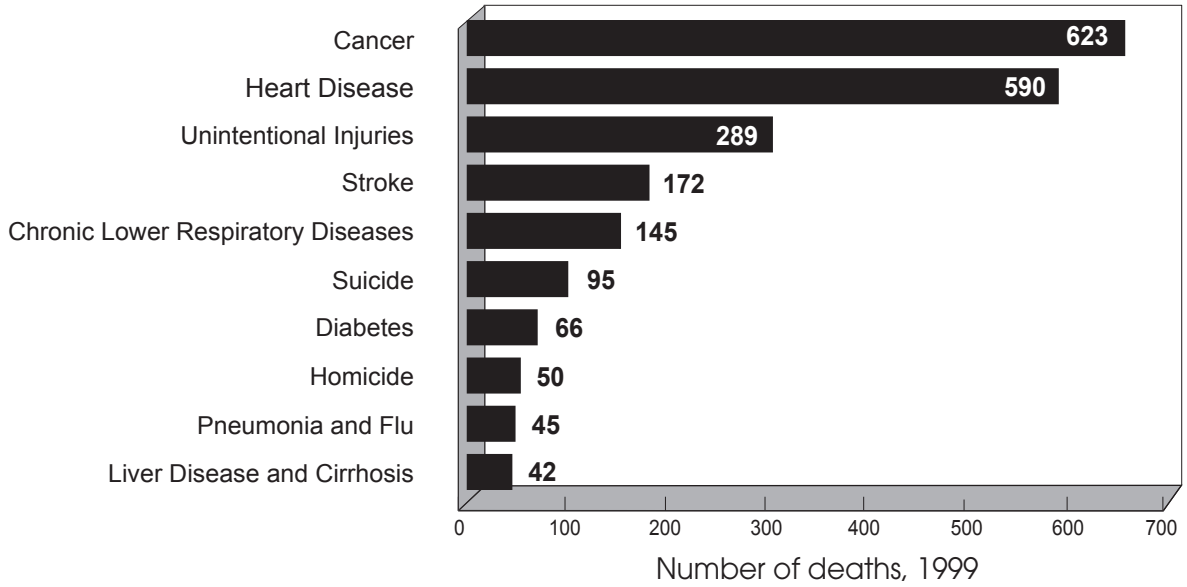
Data on behavioral risk factors are necessary for formulating intervention strategies, justifying resources to support these strategies, and proposing new policies or legislation. Surveillance of behavioral risk factors allows us to monitor trends in health behavior, and particularly enables us to measure progress toward reaching the "Healthy People 2000, Health Promotion and Disease Prevention Objectives" for the nation. It can also provide the basis for launching and evaluating programs designed to reduce the prevalence of unhealthy behaviors and attain Year 2000 health goals.

Since 1981, the Centers for Disease Control and Prevention (CDC) has helped states survey adults about their health behaviors, by conducting one-time telephone surveys. In 1984, the CDC initiated the Behavioral Risk Factor Surveillance System (BRFSS) by which 17 states began collecting behavioral risk data through monthly telephone surveys.

The Behavioral Risk Factor Surveillance System was implemented in Alaska in the fall of 1990 when a Point-in-Time Survey of 400 residents was conducted. In 1991, the Alaska Behavioral Risk Factor Surveillance System became part of an ongoing surveillance system conducting telephone surveys monthly. Each month, 165 adults aged 18 and older are interviewed regarding their health and day-to-day living habits.

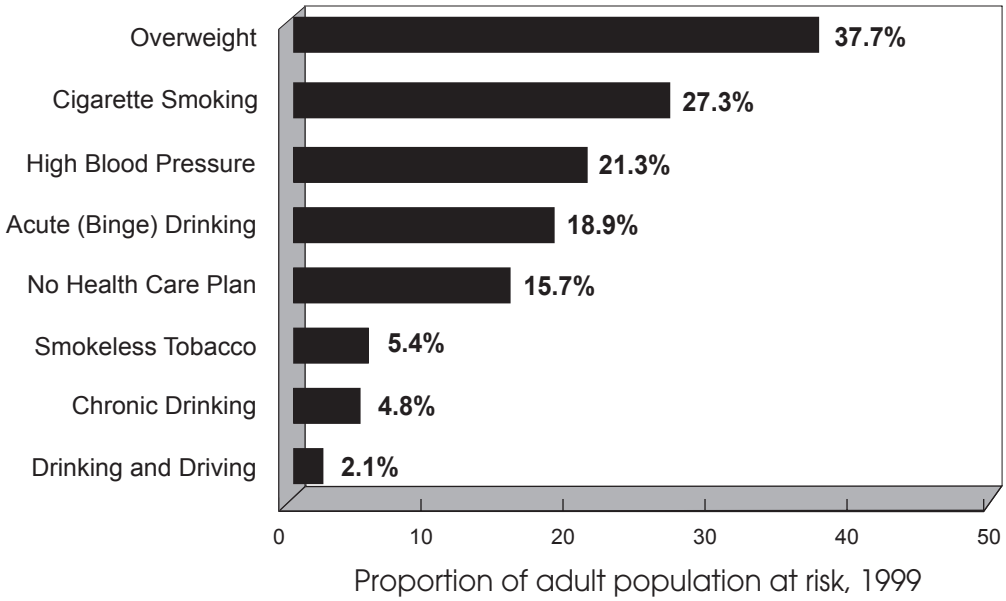
This report contains the 1999 survey results. These surveys were conducted from January through December 1999 for a total sample size of 2,051 interviews. The Division of Public Health, BRFSS continues to conduct monthly telephone surveys each year.

Leading Causes of Death in Alaska



Source: Alaska Vital Statistics executive summary cause of death codes using ICD-10.

Behavioral Risk Factor Prevalence in Alaska



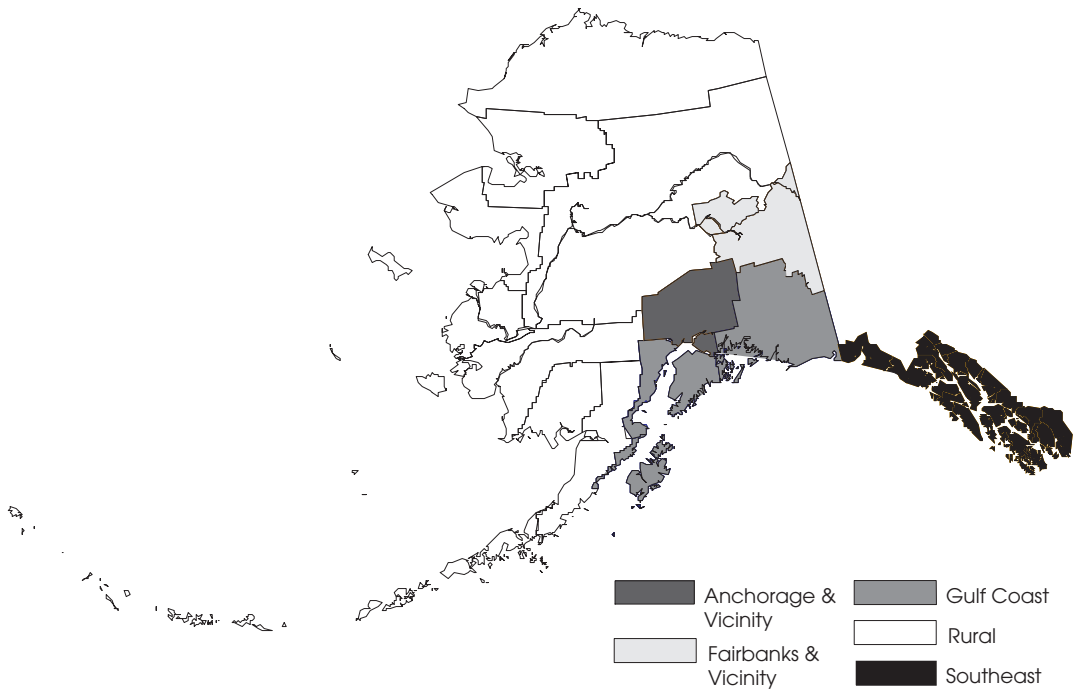
At Risk for Specific Risk Factors, 1999

Behavioral Risk Factor ◆	Proportion of Population at Risk (Prevalence)	Estimated Adults at Risk ◆◆
Overweight	37.7%	161,491
Cigarette Smoking	27.3%	116,941
High Blood Pressure	21.3%	91,240
Acute (Binge) Drinking	18.9%	80,959
No Health Care Plan	15.7%	67,252
Smokeless Tobacco	5.4%	23,131
Chronic Drinking	4.8%	20,561
Drinking and Driving	2.1%	8,995

◆ See Appendix A for Behavioral Risk Factor definitions

◆◆ Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit, 1999 population estimates.

1999 BRFSS Sampling Regions



The Alaska sample was stratified into five regions based on common demographics:

	Population 18 years and older ◆	Number of interviews expected
Anchorage and Vicinity (Region 1) Anchorage & vicinity	220,019	396
Gulf Coast (Region 2) Kenai, Kodiak, Valdez, Cordova & vicinity	51,119	396
Southeast (Region 3) All of Southeast Alaska	51,981	396
Rural (Region 4) All other non-urban areas of Alaska	43,063	396
Fairbanks and Vicnity (Region 5) Fairbanks and vicinity	62,175	396
STATEWIDE TOTAL	**428,357**	**1,980**

◆ "Alaska Population Overview: 1999 Estimates.", Alaska Department of Labor and Work Force Development.

Methodology

The Behavioral Risk Factor Surveillance System is conducted by the Alaska Division of Public Health in cooperation with the National Centers for Disease Control and Prevention (CDC). It is a monthly telephone survey that utilizes a standard protocol and interviewing methods developed by the CDC.

Sample Design

Although the main purpose of the BRFSS is to estimate the prevalence of behavioral risk factors in the general population, interviewing each person is not economically feasible. Thus, a probability (or random) sample is selected in which all persons have a known chance of selection. The BRFSS in Alaska uses a stratified random sampling design, stratified into five regions based on common demographics. An equal number of interviews are conducted from each region, which purposely oversamples the non-urban areas of Alaska (see Appendix B).

Sample Size

Each month approximately 170 Alaska residents age 18 and older were interviewed over the telephone regarding their health practices and day-to-day living habits to reach an annual sample goal of 1,980 (396 per region). The data in this report was collected from January through December, 1999, and is based on a sample size of 2,051 completed interviews.

Sample Process

The BRFSS uses a scientifically-selected telephone sampling from the CDC based on the disproportionate stratified random sampling (DSRS). The information obtained from the random sampling can be used to generalize results for the total population. In disproportionate stratified random sampling, the random telephone numbers are classified in strata that are either likely or unlikely to result in residential numbers. Telephone numbers in the likely stratum are sampled at a higher rate than the unlikely strata. See Appendix H.

Survey Instrument

The BRFSS instrument is a standardized questionnaire which consists of three sections:

- the core (which includes demographics),
- a set of optional modules and
- state specific questions.

The 1999 questionnaire covered the topics of hypertension, overweight, tobacco use, alcohol use, cholesterol screening, diabetes, HIV, health immunizations, colorectal screening, oral health, health care coverage, skin cancer, and women's health and injury. State added questions on domestic violence and child health insurance were also added.

Participation is random, anonymous and confidential. Respondents are randomly selected from among the adult members of the household. Only those living in households are surveyed. Those living in institutions (i.e., nursing homes and dormitories) are not surveyed.

Data Collection

In 1999, interviews were conducted by trained college interns. Data was collected through monthly telephone interviews.

Computer Ci3 CATI (Computer Assisted Telephone Interviewing) software was utilized with monthly data files sent to the Centers for Disease Control and Prevention.

Data Analysis

The Behavioral Risk Factor Surveillance System (BRFSS) data contains information on Alaskan adults only (aged 18 and above).

Data collected by BRFSS were edited using PCEdits software produced by the CDC. Edit reports were produced monthly and corrections made. Corrected data files and edit reports were sent to the CDC monthly. At the end of each survey year, data is compiled and weighted by CDC, and cross tabulations and prevalence reports are prepared.

Weighting: Unweighted data is the actual responses of each survey respondent. The data is weighted or adjusted to compensate for the overrepresentation or under-representation of persons in various subgroups. The data is further weighted to adjust the distribution of the sample data so that it reflects the total population of the sampled area. In 1999, survey results were weighted using 1999 intercensal population estimates for Alaska obtained from Claritas. See Appendix J.

Reporting

This report provides standard tables describing survey results based on sex, race (Native and Non-native), state total, age, education, income, marital status and employment.

Prevalence estimates for the sex, race and state total table reflect the total number of respondents, excluding those who did not respond to the question. Tables for other subgroups (age, education, income, marital status, and employment) reflect the total number of respondents including those responses that are unknown or refused for a total sample size of 2,051. All prevalence estimates in this report are based on analysis produced by the CDC with the exception of health care coverage.

Reporting on Health Care Coverage: Health care coverage results for this report were based on a special analysis produced by the Alaska Division of Public Health, Bureau of Vital Statistics. This analysis adjusted for survey respondents who first reported that they had no health care coverage and then in a follow up question reported to be covered by a health care plan. This explains the reason that these prevalence estimates may not match the estimates published by the CDC.

Reporting on Overweight: Overweight results for this report were based on the BRFSS standard definition based on a body mass index ([weight in kg] ÷ [height in meters]^2) for females >= 27.3 and males >= 27.8. This is consistent with reporting for prior years. The new standards from the National Heart, Lung, and Blood Institute defines overweight as a body mass index of 25.0 -29.9 and obesity as a body mass index of >=30.0 for both males and females.

Comparisons: All prevalence comparisons made to the National BRFSS Ranges and the National BRFSS Median are comparisons made to the 52 participating programs (50 states, Puerto Rico and the District of Columbia) in the Behavioral Risk Factor Surveillance System in 1999. These comparisons were taken from the 1999 BRFSS Summary Prevalence Report produced by the CDC. State prevalence estimates used to calculate national range and median in the 1999 BRFSS Summary Prevalence Report are based on denominators which exclude missing and unknown responses.

Limitations

The BRFSS uses telephone interviewing for several reasons. Telephone interviews are faster and less expensive than face-to-face interviews. Calls are made from one central location (Juneau) and are monitored for quality control.

The one main limitation of any telephone survey is that those people without phones cannot be reached and are not represented. In Alaska, about 92% of households have phones (about 93% of all U.S. households have phones). The percentage of households with a telephone varies by region in Alaska (see Appendix G). In general, persons of low socioeconomic status are less likely than persons of higher socioeconomic status to have phones and are undersampled. However, national BRFSS results correspond well with findings from other surveys conducted in person.

Some inaccuracy is expected from any survey based on self-reported information and the potential for bias must be kept in mind when interpreting results.

Survey response rates may also affect the potential for bias in the data. Survey response rates are shown in Appendix J.

The reliability of a prevalence estimate depends on the actual, unweighted number of respondents in a category or demographic subgroup (not a weighted number). Interpreting and reporting weighted numbers that are based on a small, unweighted number of respondents can be misleading. The degree of precision increases if the sample size is larger and decreases if the sample size is smaller. In this report, prevalence estimates are not reported for those categories in which there were less than 50 respondents and are rounded to the nearest whole percent when the denominator is less than 500. Confidence intervals are reported for the prevalence estimates for state totals, gender and race.

Table 1 on the following page describes the sample population and should be used as a basis for understanding the tables in this report. Due to rounding, the weighted numbers in this table do not add exactly to the 1999 population estimates cited in this report.

Table 1

Survey Population by Selected Demographics

Alaska BRFSS 1999

	n	%	Weighted N
Gender			
Male	1,001	52.1	224,894
Female	1,050	47.9	206,504
Race			
Native	421	15.1	357,648
Non-Native	1,592	82.9	65,301
Unknown/Refused	38	2.0	8,449
Age			
18-24	167	12.6	54,300
25-34	429	22.8	98,223
35-44	612	26.6	114,701
45-54	450	18.7	80,698
55-64	221	12.0	51,696
65+	102	4.5	19,329
Unknown/Refused	11	0.2	789
Education			
Less than High School Graduate	181	8.0	34,403
High School Graduate or GED	726	36.1	155,567
Some College or Technical School	588	30.3	130,578
College Graduate	552	25.6	110,400
Unknown/Refused	4	0.1	449

	n	%	Weighted N
Income			
< $15,000	188	7.8	33,821
$15,000-24,999	328	15.2	65,405
$25,000-49,999	637	30.7	132,613
$50,000-74,999	375	19.8	85,574
> $75,000	355	17.6	75,746
Unknown/Refused	168	8.9	38,239
Marital Status			
Married	1,076	58.1	250,473
Unmarried	970	41.7	179,790
Employment			
Employed	1,477	69.9	301,642
Not Employed	166	9.3	40,149
Homamker or Student	153	8.6	37,293
Retired or unable to work	253	12.1	52,067
Unknown/Refused	2	0.1	248

n = Number of survey repondents in this demographic subgroup. Total sample size = 2,051

% = This is a weighted (adjusted) percentage of the state population (adult) in this demographic subgroup, based on the survey data.

Weighted N = Weighted sample number, based on 1999 intercensal population estimates for Alaska (Claritas).

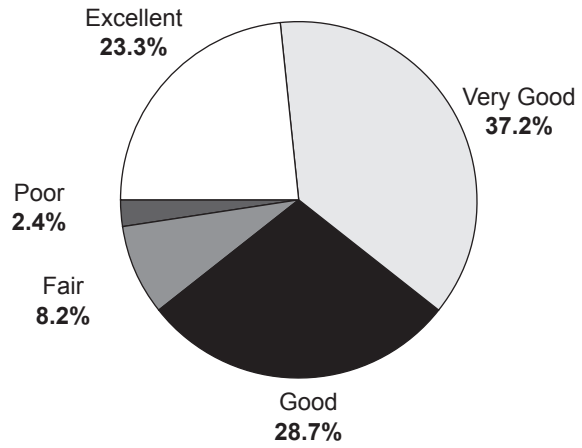
Quality of Life

A fundamental goal of the Year 2000 national health objectives is to increase the span of healthy life for all persons in the United States. Although the average life expectancy of Americans has increased to 75 years, for some persons, increased life expectancy includes periods of diminished health and functions (lowered health-related quality of life). In general, population-based information on good health has been limited. In recent years, questions to assess the health-related quality of life have been added to the BRFSS.

Self Reported Health Status of Alaskans

General Health Status: In 1999, 89.2% of Alaskan adults rated their own health as excellent, very good, or good. Only 10.6% of Alaskans rated their health as fair or poor. (National BRFSS Range 8.4 to 33%, National BRFSS Median 13%). Of those surveyed, 23.3% rated their health excellent, 37.2% as very good, 28.7% as good, 8.2% as fair and 2.4% as poor.

How Alaskans Rate Their Own Health



Recent Physical Health: Alaskan adults reported an average of 2.8 days out of the past 30 days when their physical health was not good (National BRFSS Range 0.9 to 4.1 days, National BRFSS Median 3.2 days). Alaskan males reported an average of 2.3 days during the past month when their physical health was not good. Alaskan females reported an average of 3.3 days during the past month when their physical health was not good.

Recent Mental Health: Alaskan adults reported an average of 3.2 days out of the past 30 days when their mental health was not good (National BRFSS Range 0.7 to 4.7 days, National BRFSS Median 2.9 days). Alaskan males reported an average of 2.5 days during the past month when their mental health was not good. Alaskan females reported an average of 4.0 days during the past month when their mental health was not good.

Recent Activity Limitations: Alaskan adults reported an average of 3.8 days during the past 30 days when their usual activities were limited due to their physical or mental health (National BRFSS Range 2.7 to 7.2 days, National BRFSS Median 3.8 days).

Year 2000 National Health Objectives

Increase years of healthy life to at least 65 years. (Objective 8.1)

Risk Factors

Alcohol Use

Health Risk

Alcohol is implicated in nearly half of all deaths caused by motor vehicle crashes and a substantial portion of deaths from fires, drownings, homicides, and suicides. From 1992 to 1994, alcohol accounted for 11.2% of the deaths in Alaska.

Medical problems due to alcohol dependence include alcohol withdrawal syndrome, psychosis, hepatitis, cirrhosis, pancreatitis, thiamine deficiency, neuropathy, dementia, and cardiomyopathy.

Alcohol use during pregnancy is a leading preventable cause of birth defects and mental retardation.

Alcohol Use in Alaska

Definitions used in this survey:

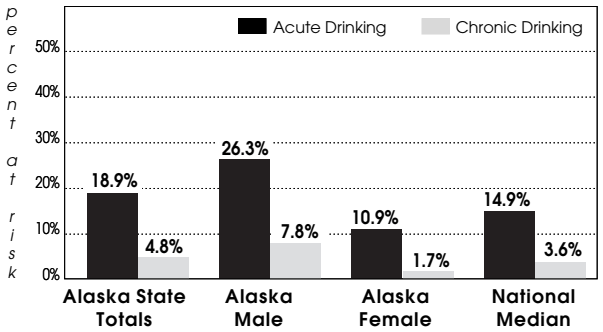
Acute (Binge) Drinking: *Respondents who report having five or more drinks on an occasion, one or more times in the past month.*

Chronic Drinking: *Respondents who report an average of 60 or more alcoholic drinks a month.*

Drinking and Driving: *Respondents who report having driven after having too much to drink, one or more times in the past month.*

In 1999, 56.8% of those surveyed reported drinking alcohol in the past month. Among males, 62.7% reported drinking alcohol in the past month; and among females, 50.3% reported drinking alcohol in the past month.

Comparison of Risk Prevalence for Alcohol Use



Acute - National BRFSS Range 7.7 - 27%, Median 14.9%
Chronic - National BRFSS Range 1.7 - 7.4%, Median 3.6%

An estimated 18.9% of Alaskan adults engaged in acute (binge) drinking (National BRFSS Range 7.7 to 27%, National BRFSS Median 14.9%). Of the males, 26.3% engaged in binge drinking and of the females 10.9% engaged in binge drinking. Men are more likely than women to engage in binge drinking in every age group over 18.

An estimated 4.8% of Alaskan adults were at risk for chronic drinking (National BRFSS Range 1.7 to 7.4%, National BRFSS Median 3.6%). Of males, 7.8% had more than 60 drinks during the past month and of females, 1.7% had more than 60 drinks during the past month.

An estimated 2.1% of Alaskan adults engaged in drinking and driving during the past month. Of men, 3.0% reported drinking and driving during the past month and of women, 1.2% reported the same thing.

Year 2000 National Health Objectives

The Year 2000 Health Objectives relate to health status, risk reduction, and service and protection to reduce alcohol and other drug problems. The health objectives do not relate to alcohol consumption as defined by the 1999 BRFSS.

At Risk for Acute (Binge) Drinking in Alaska

By age and gender

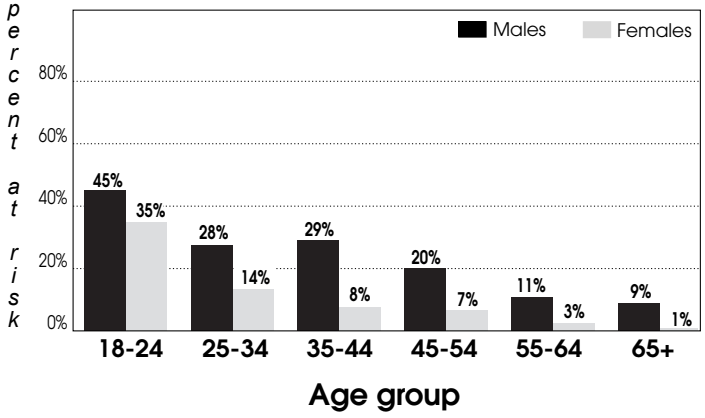


Table 2

Prevalence of Acute (Binge) Drinking by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	272	26.3	981	22.6-30.1%
Female	99	10.9	1,037	7.5-14.4%
Race				
Native	99	27.3	405	20.3-34.4%
Non-Native	267	17.5	1,576	14.9-20.2%
TOTAL	**371**	**18.9**	**2,018**	**16.4-21.5%**

	n	%	N
Age			
18-24	61	41	167
25-34	95	21	429
35-44	114	19	612
45-54	65	14	450
55-64	30	7	221
65+	6	5	161
Unknown/Refused	—	—	11
Education			
Less than High School	30	15	181
High School Graduate or GED	148	21	726
Some College or Technical School	113	19	588
College Graduate	79	15	552
Unknown/Refused	1	◆◆	4

	n	%	N
Income			
< $15,000	34	21	188
$15,000-24,999	66	22	328
$25,000-49,999	134	21	637
$50,000-74,999	65	16	375
> $75,000	53	15	355
Unknown/Refused	19	15	168
Marital Status			
Married	135	13	1,076
Unmarried	236	27	970
Unknown/Refused	—	—	5
Employment			
Employed	296	21	1,477
Not Employed	39	28	166
Student/Homemaker	11	8	153
Retired or Unable to work	25	6	253
Unkown	—	—	2

◆◆= Not Reported

n = Number of respondents who have had five or more drinks on an occasion, one or more times in the past month.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Table 3

Prevalence of Chronic Drinking by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	81	7.8	976	5.5-10%
Female	13	1.7	1,035	0.5-2.8%
Race				
Native	17	3.8	402	1.5-6.1%
Non-Native	77	5.1	1,572	3.6-6.6%
TOTAL	**94**	**4.8**	**2,011**	**3.5-6.1%**

	n	%	N
Age			
18-24	14	9	167
25-34	14	3	429
35-44	30	5	612
45-54	23	5	450
55-64	7	4	221
65+	6	4	161
Unknown/Refused	—	—	11
Education			
Less than High School	10	4	181
High School Graduate or GED	41	6	726
Some College or Technical School	25	5	588
College Graduate	18	3	552
Unknown/Refused	—	—	4

	n	%	N
Income			
< $15,000	9	5	188
$15,000-24,999	17	4	328
$25,000-49,999	36	7	637
$50,000-74,999	13	4	375
> $75,000	11	2	355
Unknown/Refused	8	6	168
Marital Status			
Married	25	3	1,076
Unmarried	69	8	970
Unknown/Refused	—	—	5
Employment			
Employed	66	5	1,477
Not Employed	16	10	166
Student/Homemaker	2	2	153
Retired or Unable to work	10	4	253
Unkown	—	—	2

n = Number of respondents who have had an average of 60 or more alcoholic drinks during the past month.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Table 4

Prevalence of Drinking and Driving by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	34	3.0	996	1.6-4.3%
Female	9	1.2	1,046	0.2-2.1%
Race				
Native	11	2.1	418	0.4-3.9%
Non-Native	32	2.1	1,587	1.2-3.1%
TOTAL	**43**	**2.1**	**2,042**	**1.3-3.0%**

	n	%	N
Age			
18-24	10	5	167
25-34	6	1	429
35-44	19	3	612
45-54	5	2	450
55-64	2	1	221
65+	1	<1	161
Unknown/Refused	—	—	11
Education			
Less than High School	6	3	181
High School Graduate or GED	19	3	726
Some College or Technical School	9	1	588
College Graduate	9	2	552
Unknown/Refused	—	—	4

	n	%	N
Income			
< $15,000	6	3	188
$15,000-24,999	8	1	328
$25,000-49,999	14	3	637
$50,000-74,999	10	3	375
> $75,000	3	1	355
Unknown/Refused	2	2	168
Marital Status			
Married	10	1	1,076
Unmarried	33	4	970
Unknown/Refused	—	—	5
Employment			
Employed	35	2	1,477
Not Employed	6	3	166
Student/Homemaker	1	2	153
Retired or Unable to work	1	<1	253
Unkown	—	—	2

n = Number of respondents who report having driven after having too much to drink, one or more times in the past month.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Diabetes Awareness

Health Risk

Diabetes is a chronic and potentially disabling condition characterized by elevated blood glucose levels. Diabetes is classified into two main types: Type 1 and Type 2. The most common type is Type 2, which affects 90% of those with diabetes and usually appears after the age of 40. Type 1 diabetes affects less than 10% of those with diabetes. Although this type of diabetes can occur at any age, it most often appears in childhood or the teen years.

An estimated 14,000 adult Alaskans had been diagnosed with diabetes. In 1999, diabetes was the seventh-leading cause of death in Alaska. Individuals with diabetes are at increased risk for

- heart disease
- blindness
- kidney failure, and
- lower extremity amputations

Diabetes and its complications occur among Americans of all ages and racial ethnic groups. The burden of this disease is heavier among elderly Americans and certain racial and ethnic populations, including African Americans, Hispanics/Latinos, and American Indians.

Diabetes imposes a heavy economic burden upon the nation each year. In 1997, an estimated $98 billion in direct and indirect costs were spent on diabetes. In Alaska, the medical care costs related to diabetes treatment were estimated to be $141 million.

Much of the burden of diabetes can be prevented with early detection, improved delivery of care, and diabetes self-management education.

Diabetes in Alaska

Among Alaskan adults, 3.5% reported being told by a doctor that they had diabetes (National BRFSS Range 3.5 to 9.6%, National BRFSS Median 5.6%). Among men, 3.9% reported being told that they had diabetes and among women 3.1% reported being told that they had diabetes. Among women, 2.8% reported being told they had diabetes during pregnancy.

Table 5

Prevalence of Diabetes Awareness by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	43	3.9	1000	2.3-5.5%
Female	35	3.1	1048	1.7-4.6%
Race				
Native	17	3.9	420	1.7-6.2%
Non-Native	58	3.4	1,591	2.1-4.6%
TOTAL	**78**	**3.5**	**2,048**	**2.1-4.6%**

	n	%	N
Age			
18-24	1	<1	167
25-34	4	1	429
35-44	11	2	612
45-54	19	4	450
55-64	21	7	221
65+	21	13	161
Unknown/Refused	1	◆◆	11
Education			
Less than High School	16	7	181
High School Graduate or GED	22	3	726
Some College or Technical School	24	3	588
College Graduate	16	3	552
Unknown/Refused	—	—	4

	n	%	N
Income			
< $15,000	10	6	188
$15,000-24,999	13	7	328
$25,000-49,999	17	1	637
$50,000-74,999	12	3	375
> $75,000	16	4	355
Unknown/Refused	10	4	168
Marital Status			
Married	39	3	1,076
Unmarried	39	4	970
Unknown/Refused	—	—	5
Employment			
Employed	47	3	1,477
Not Employed	5	4	166
Student/Homemaker	2	1	153
Retired or Unable to work	24	9	253
Unkown	—	—	2

◆◆= Not Reported

n = Number of respondents who report ever told by doctor that they have diabetes.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

High Blood Pressure

Health Risk

High blood pressure (hypertension) contributes substantially to the risks for coronary heart disease, stroke and other complications of atherosclerosis. It also causes brain, heart, and kidney damage. High blood pressure not only increases risk of death from these conditions, it also increase risk of disability.

Clinical trials show that blood pressure reduction produces major reductions in morbidity and mortality, especially when introduced before target organ damage has occurred.

Approximately one in four adults in the United States have high blood pressure (blood pressure equal to or greater than 140mm/Hg systolic and/90mm/Hg diastolic and/or taking antihypertensive medication). The prevalence of high blood pressure increases markedly with age in the United States, from approximately 8% at ages 18-24 to 46% at ages 65 and older.

High Blood Pressure in Alaska

Definition for hypertension used in this survey: Respondents who report that they have been told they are hypertensive (have high blood pressure).

An estimated 21.3% had ever been told by a doctor or other health professional that their blood pressure was high (National BRFSS Range 14.2 to 33.5%, National BRFSS Median 24%). Of Alaskan males, 19.4% report having been told their blood pressure was high and of females, 23.4%.

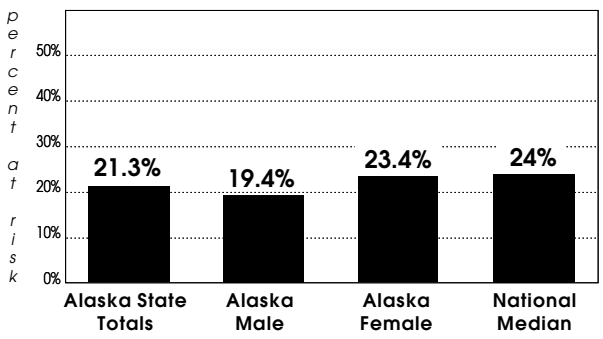
Of the persons who have been told that their blood pressure was high, 27.2% were told only once and 72.5% had been told more than once. Most (87.4%) adults had their blood pressure taken by a health professional within the past year.

Year 2000 National Health Objectives

Increase to at least 90% the proportion of people with high blood pressure who are taking action to help control their blood pressure. (Objective 15.5)

(*Please note:* The BRFSS does not directly measure this objective. Actions to control high blood pressure include taking medication, dieting to lose weight, exercise, and cutting down on salt.)

Comparison of Risk Prevalence for High Blood Pressure



National BRFSS Range 14.2 - 33.5%, Median 24%

Table 6

Prevalence of High Blood Pressure by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	221	19.4	997	15.8-22.9%
Female	248	23.4	1,049	19.4-27.4%
Race				
Native	116	23.8	420	18.4-29.1%
Non-Native	340	20.8	1,588	17.7-23.8%
TOTAL	**469**	**21.3**	**2,046**	**18.6-24.0%**

	n	%	N
Age			
18-24	7	8	166
25-34	62	15	427
35-44	105	14	612
45-54	127	28	450
55-64	84	40	220
65+	81	46	161
Unknown/Refused	3	◆◆	11
Education			
Less than High School	59	26	181
High School Graduate or GED	160	19	725
Some College or Technical School	143	25	587
College Graduate	107	19	550
Unknown/Refused	—	—	4

	n	%	N
Income			
< $15,000	46	21	188
$15,000-24,999	77	21	327
$25,000-49,999	145	25	637
$50,000-74,999	82	19	372
> $75,000	75	21	355
Unknown/Refused	41	18	168
Marital Status			
Married	237	22	1,075
Unmarried	231	21	967
Unknown/Refused	1	◆◆	5
Employment			
Employed	290	19	1,474
Not Employed	32	10	165
Student/Homemaker	33	20	153
Retired or Unable to work	114	43	253
Unkown	—	—	2

◆◆= Not Reported

n = Number of respondents who report having been told they have high blood pressure.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Overweight

Health Risk

Overweight is associated with high blood cholesterol, high blood pressure, and diabetes and is an independent risk factor for heart disease. Overweight also increases the risk for gall bladder disease and certain types of cancer.

Studies reveal that reduction in body weight can lower blood pressure and improve blood cholesterol levels.

Year 2000 National Health Objectives

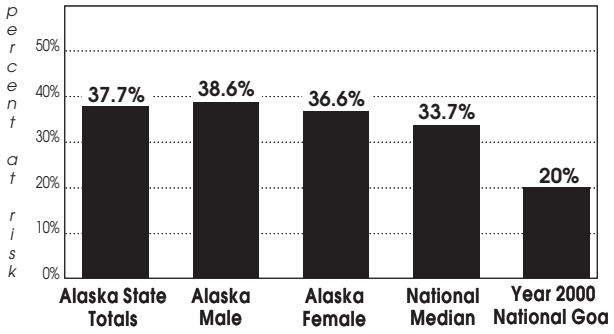
Reduce overweight to a prevalence of no more than 20% among people aged 20 and older, and no more than 15% among adolescents aged 12 to 19 (based on body mass index). (Objective 2.3)

Overweight in Alaska

Previous definition for overweight used in this survey: Females with body mass index [weight in kilograms divided by height in meters squared ([weight in kg]÷[weight in meters]^2)>=27.3 and males with body mass index >=27.8.

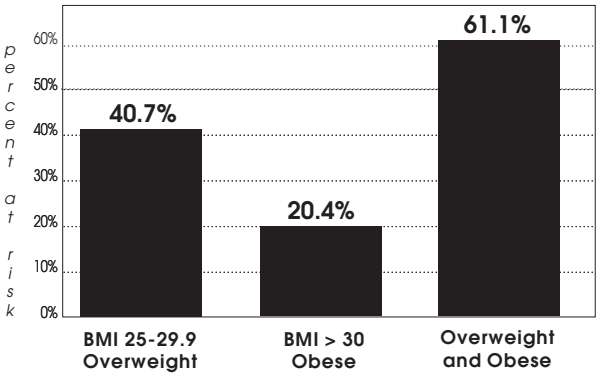
According to this definition, based on body mass index, 37.7% of Alaskans were overweight (National BRFSS Range 22.9 to 41.8%, National BRFSS Median 33.7%). Among men, 38.6% were overweight and among women, 36.6% were overweight. This is higher than the Year 2000 goal of 20%.

Comparison of Risk Prevalence for Overweight



National BRFSS Range 22.9 - 41.8%, Median 33.7%

New BMI classification



The revised current BMI defines overweight as 25.0-29.9, and obese with a BMI greater than 29.9.

Table 7

Prevalence of Overweight (Previous BMI) by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	376	38.6	996	34.1-43.0%
Female	400	36.6	1,010	32.4-40.9%
Race				
Native	194	44.9	408	37.9-51.9%
Non-Native	561	35.9	1,561	32.4-39.4%
TOTAL	**776**	**37.7**	**2,006**	**34.6-40.8%**

	n	%	N
Age			
18-24	47	32	167
25-34	153	34	429
35-44	214	34	612
45-54	191	42	450
55-64	98	45	221
65+	67	36	161
Unknown/Refused	6	◆◆	11
Education			
Less than High School	75	43	181
High School Graduate or GED	288	39	726
Some College or Technical School	239	40	588
College Graduate	173	28	552
Unknown/Refused	1	◆◆	4

	n	%	N
Income			
< $15,000	84	36	188
$15,000-24,999	118	37	328
$25,000-49,999	243	35	637
$50,000-74,999	141	40	375
> $75,000	147	41	355
Unknown/Refused	43	24	168
Marital Status			
Married	431	40	1,076
Unmarried	343	32	970
Unknown/Refused	2	◆◆	5
Employment			
Employed	571	38	1,477
Not Employed	50	26	166
Student/Homemaker	48	31	153
Retired or Unable to work	107	42	253
Unkown	—	—	2

◆◆= Not Reported

n = Number of respondents who are overweight based on Body Mass Index (BMI). Previous >= 27.3 female, 27.8 male.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

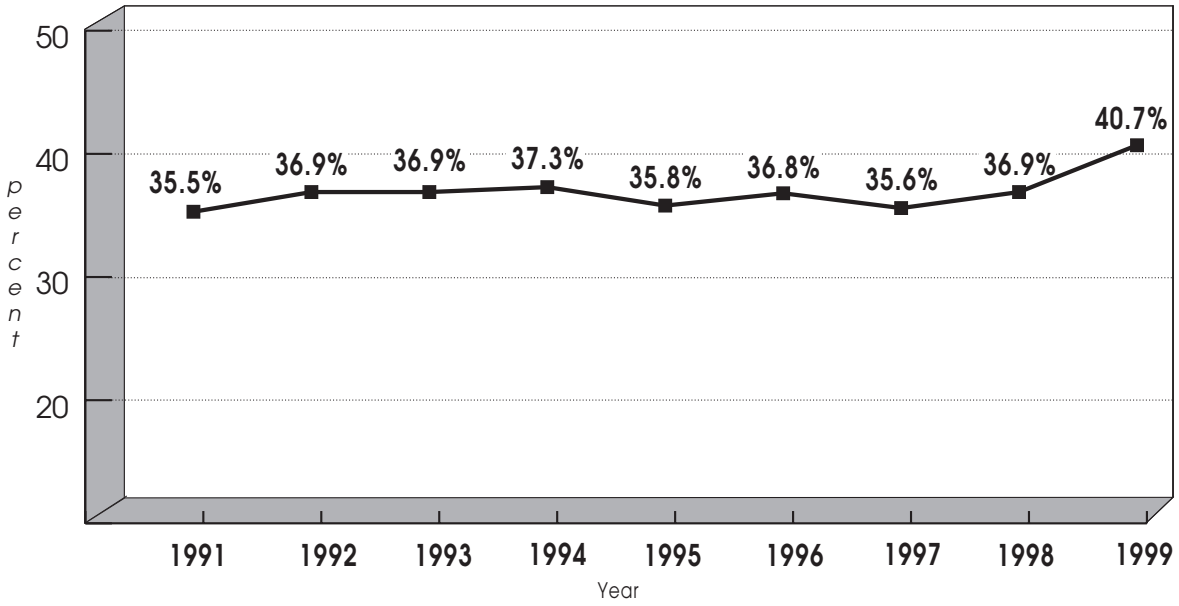
N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

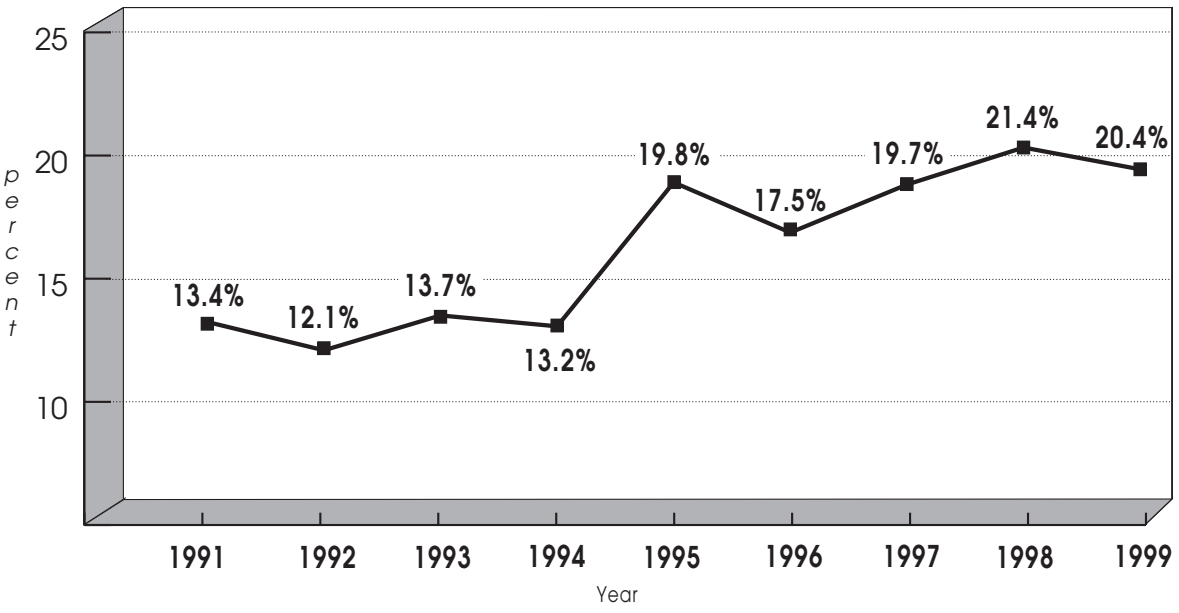
Revised Current BMI Classification

New BMI guidelines were created in 1999 and are to be used in future BRFSS results. The new Body Mass Index (BMI) classification system defines overweight at 25 to 29.9 and obesity at 30 or greater for both males and females. The BMI is still computed by weight in kilograms divided by height in meters ([weight in kg]÷[weight in meters]^2).

Overweight: BMI 25-29.9



Obesity: BMI 30 or greater



Smoking

Health Risk

Tobacco use is the most important single preventable cause of death and disease in our society. Tobacco use is a major risk factor for diseases of the heart and blood vessels, chronic bronchitis and emphysema, cancers of the lung, larynx, pharynx, oral cavity, esophagus, pancreas, and bladder; and other problems such as respiratory infections and stomach ulcers. Cigarette smoking accounts for about 430,000 deaths in the United States each year. Smoking accounts for 21% of all coronary heart disease deaths, 87% of lung cancer deaths, and 82% of deaths from chronic pulmonary disease. Cigarette smoking during pregnancy accounts for 17-26% of low birth weight babies, up to 14% of preterm deliveries, and about 10% of all infant deaths.

From 1992 to 1999, smoking accounted for 19.8% of the deaths in Alaska.

Smoking in Alaska

Definition of current smoking for this survey: Respondents who have smoked at least 100 cigarettes in their entire life and now smoke (regularly and irregularly).

Among Alaskan adults, 27.3% currently smoked cigarettes (National BRFSS Range 13.7 to 31.5%, National BRFSS Median 22.7%). The prevalence was higher among females (29.4%) than males (25.3%).

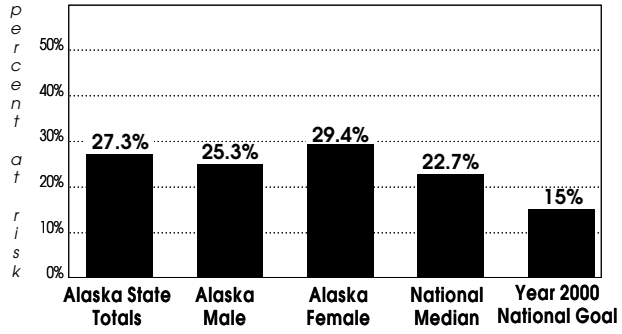
Over half of all the people surveyed (52.9%) had smoked at least 100 cigarettes in their lifetime. Of all the people who had smoked during their lifetime, nearly half (48.5%) had quit. Of former smokers, 32.9% quit within the past five years and 62.7% quit over five years ago. Sixty percent of the current smokers who smoke everyday had quit smoking for one day or longer within the last year.

Year 2000 National Health Objectives

Reduce cigarette smoking to a prevalence of no more than 15% among people aged 20 and older. (Objective 3.4)

Increase to at least 50% the proportion of cigarette smokers aged 18 and older who stopped smoking cigarettes for at least one day during the preceding year. (Objective 3.6)

Comparison of Risk Prevalence for Smoking



National BRFSS Range 13.7 - 31.5%, Median 22.7%

Table 8

Prevalence of Cigarette Smoking by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	299	25.3	999	21.8-28.8%
Female	293	29.4	1,046	24.8-34.0%
Race				
Native	182	42.1	417	35.0-49.2%
Non-Native	393	24.3	1,591	20.9-27.6%
TOTAL	**592**	**27.3**	**2,045**	**24.3-30.2%**

	n	%	N
Age			
18-24	71	38	167
25-34	124	25	429
35-44	185	28	612
45-54	132	30	450
55-64	54	20	221
65-74	15	21	102
75+	6	8	59
Unknown/Refused	5	◆◆	11
Education			
Less than High School	72	37	181
High School Graduate or GED	275	37	726
Some College or Technical School	167	25	588
College Graduate	77	13	552
Unknown/Refused	1	◆◆	4

	n	%	N
Income			
< $15,000	82	39	188
$15,000-24,999	137	41	328
$25,000-49,999	182	27	637
$50,000-74,999	87	23	375
> $75,000	48	12	355
Unknown/Refused	56	35	168
Marital Status			
Married	229	20	1,076
Unmarried	362	37	970
Unknown/Refused	1	◆◆	5
Employment			
Employed	425	26	1,477
Not Employed	75	52	166
Student/Homemaker	27	13	153
Retired or Unable to work	65	23	253
Unkown	—	—	2

◆◆= Not Reported

n = Number of respondents who are current regular and irregular smokers.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Smokeless Tobacco Use

Health Risk

Oral cancer has been shown to occur several times more frequently among smokeless tobacco users than among nonusers and may be 50 times as frequent among long-term snuff users.

Smokeless tobacco, especially moist snuff, contains high levels of potent carcinogens. About one third of users develop leukoplakia, a white wrinkled patch on the gums and inside the mouth, which is a premalignant condition.

All smokeless tobacco products contain substantial amounts of nicotine; their use can support nicotine dependence and may lead to cigarette use.

The consumption of smokeless tobacco in the United States increased 40% between 1970 and 1986. Most new users of smokeless tobacco products are adolescent males.

In rural Alaskan communities, smokeless tobacco use is not uncommon among five year olds. Nationally, the average age to start smokeless tobacco use is twelve years.

Smokeless Tobacco Use in Alaska

Of all Alaskan adults, 27.7% reported to have ever used or tried chewing tobacco, snuff or both. Of men, 44.1% had used or tried such products, and 9.9% of women.

Among Alaskan adults, 5.4% were current smokeless tobacco users. The prevalence of smokeless tobacco use was higher among males (8.7%) than females (1.7%).

The prevalence of smokeless tobacco use was higher among Alaska natives (12.4%) compared to non-native (4.2%).

Year 2000 National Health Objectives

Reduce smokeless tobacco use by males aged 12 to 24 to a prevalence of no more than 4%. (Objective 3.9)

Smokeless Tobacco Use

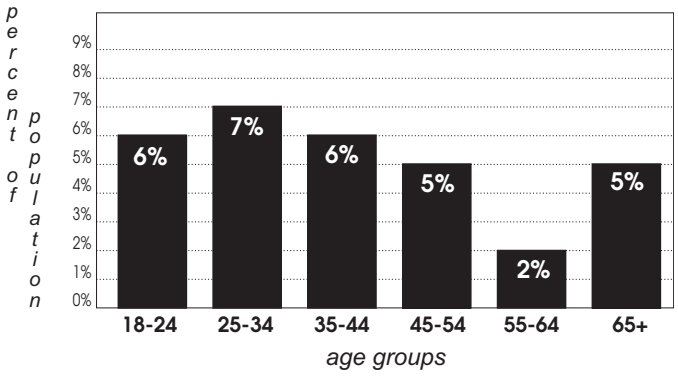


Table 9

Prevalence of Smokeless Tobacco Use by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	89	8.7	1,001	6.4-11.0%
Female	26	1.7	1,050	0.9-2.6%
Race				
Native	60	12.4	421	8.3-16.4%
Non-Native	55	4.2	1,587	2.9-5.6%
TOTAL	**115**	**5.4**	**2,051**	**4.1-6.6%**

	n	%	N
Age			
18-24	9	6	167
25-34	41	7	429
35-44	32	6	612
45-54	19	5	450
55-64	7	2	221
65+	7	5	161
Unknown/Refused	—	—	11
Education			
Never Attended School	2	—	5
Elementary	4	7	58
Some High School	9	6	118
High School Graduate or GED	56	6	726
Some College or Technical School	30	5	588
College Graduate	14	3.4	552
Unknown/Refused	0	—	4

	n	%	N
Income			
< $10,000	10	7	96
$10,000-14,999	8	6	92
$15,000-19,999	7	5	138
$20,000-24,999	7	3	190
$25,000-34,999	9	2	270
$35,000-49,999	17	4	367
$50,000-74,000	19	7	375
> $75,000	24	7	355
Unknown/Refused	15	8	168
Marital Status			
Married	60	5	1,076
Divorced	15	4	343
Widowed	3	4	105
Separated	2	3	51
Never Married	28	7	388
Unmarried Couple	7	9	83
Unknown/Refused	—	—	4
Marital Status			
Employed	81	6	1,272
Self-Employed	9	3	205
Out of Work for More Than One Year	4	10	53
Out of Work for Less Than One Year	7	6	113
Student	4	2	119
Homemaker	2	5	34
Retired or Unable to Work	8	3	253
Unknown	—	—	2

n = Number of respondents who are current smokeless tobacco users.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Preventive Health Care Practices

Overview

The effectiveness of preventive services in reducing disease and premature death is now well documented. There have been dramatic declines for stroke mortality, cervical cancer mortality, and childhood infectious diseases because of the widespread application of such preventive services as high blood pressure detection and control, pap tests, and childhood immunizations. Other preventive services such as mammography have also been shown to be effective.

Many Americans lack access to an ongoing source of primary care, and therefore, to essential clinical preventive services. Millions of Americans are without any form of health insurance and many more are underinsured.

For a variety of reasons, in many areas, access to primary care is limited by an inadequate supply of primary care providers.

Even when access to primary care is not an issue, many preventive services are not offered by health care providers at regular intervals and few preventive services are covered under existing insurance plans despite their proven effectiveness in improving health.

Health Care Coverage and Health Checkups in Alaska

It was estimated that 84% of Alaskan adults had some kind of health care plan. According to this survey, 15.7% of Alaskan adults did not.

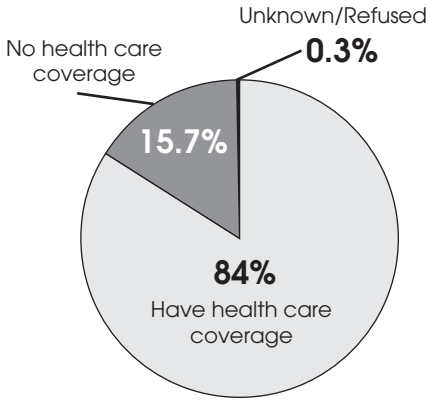
In total, 13.5% of Alaskan adults reported needing to see a doctor in the last year, but could not due to the cost. Of Alaskan females, 15.1% reported not being able to see a doctor due to the cost compared to 12.1% of Alaskan males.

In total, 68.4% of Alaskan adults had visited a doctor within the last year for a routine checkup. Of Alaskan males, 59.6% had visited a doctor for a routine checkup in the last year compared to 78% of females.

Year 2000 National Health Objective

Increase to at least 95 percent the proportion of people who have a specific source of ongoing primary care for coordination of their preventive and episodic health care. (Objective 21.3)

Health Care Coverage



(*Results adjusted for Alaska)

Table 10

Prevalence of No Health Care Plan by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	156	15.5	993	12.3-18.7%
Female	153	15.9	1,050	12.6-19.1%
Race				
Native	56	14.0	414	9.3-18.8%
Non-Native	246	15.9	1,586	13.3-18.5%
TOTAL	**309**	**15.7**	**2,043**	**13.4-18.0%**

	n	%	N
Age			
18-24	46	22	164
25-34	72	32	427
35-44	98	15	611
45-54	55	19	450
55-64	33	8	220
65+	2	14	161
Unknown/Refused	3	2	10
Education			
Never Attended School	1	48	5
Elementary	6	7	58
Some High School	32	25	118
High School Graduate or GED	142	21	720
Some College or Technical School	79	13	586
College Graduate	48	10	552
Unknown/Refused	1	27	4

	n	%	N
Income			
< $10,000	35	43	95
$10,000-14,999	26	37	92
$15,000-19,999	39	32	137
$20,000-24,999	43	21	190
$25,000-34,999	45	15	269
$35,000-49,999	42	12	367
$50,000-74,000	23	6	374
> $75,000	19	6	355
Unknown/Refused	37	28	164
Marital Status			
Married	109	10	1,074
Divorced	64	17	343
Widowed	10	18	105
Separated	8	17	51
Never Married	97	28	382
Unmarried Couple	20	27	83
Unknown/Refused	1	7	5
Employment			
Employed	154	13	1,267
Self-Employed	63	30	204
Out of Work for More Than One Year	15	29	52
Out of Work for Less Than One Year	38	30	112
Student	21	19	119
Homemaker	7	21	34
Retired or Unable to Work	10	6	253
Unknown	1	68	2

n = Number of respondents who reported no healthcare coverage.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Blood Pressure Screening

Health Risk

High blood pressure contributes substantially to the risk for coronary heart disease, stroke and other complications of arteriosclerosis. It also causes brain, heart, and kidney damage. High blood pressure not only increases risk of death from these conditions, it also increases risk of disability.

According to the National Heart, Lung and Blood Institute, all adults should have their blood pressure checked at least every 2 years, and more frequently if measurements have been abnormal. Criteria for high blood pressure among adults are an average systolic pressure of 140 or more, or an average diastolic pressure of 90 or more. Elevated readings should be confirmed by doing one or more readings on at least three separate visits.

Blood Pressure Screeening in Alaska

Definition for blood pressure screening used in this survey: Respondents who report they have not had their blood pressure checked within the past two years.

It is estimated that 6.1% of Alaskan adults have not had their blood pressure checked by a health professional within the past two years (National BRFSS Range 3.3 to 9.7%, National BRFSS Median 5.4%). Of Alaskan females, 3.3% have not had their blood pressure checked within the past two years and 8.7% of Alaskan males have not had their blood pressure checked within the past two years.

Among Alaskan adults, 87.4% report having had their blood pressure checked within the past year. More Alaskan females (92.0%) have had their blood pressure checked within the last year than males (83.3%).

Year 2000 National Health Objective

Increase to at least 90% the proportion of adults who have had their blood pressure measured within the preceding two years and can state whether their blood pressure was normal or high. (Objective 15.13)

Table 11

Prevalence of No Blood Pressure Screening by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	86	8.7	981	6.2-11.3%
Female	36	3.3	1,037	1.8-4.8%
Race				
Native	17	5.3	401	1.7-8.9%
Non-Native	103	6.1	1,579	4.5-7.7%
TOTAL	**122**	**6.1**	**2,018**	**4.6-7.7%**

	n	%	N
Age			
18-24	11	6	167
25-34	25	5	429
35-44	41	9	612
45-54	23	3	450
55-64	13	6	221
65+	8	6	161
Unknown/Refused	1	◆◆	11
Education			
Less than High School	12	7	181
High School Graduate or GED	53	9	726
Some College or Technical School	31	4	588
College Graduate	25	4	552
Unknown/Refused	1	◆◆	4

	n	%	N
Income			
< $15,000	14	10	188
$15,000-24,999	22	5	328
$25,000-49,999	35	7	637
$50,000-74,999	22	6	375
> $75,000	17	5	355
Unknown/Refused	12	6	168
Marital Status			
Married	57	6	1,076
Unmarried	65	7	970
Unknown/Refused	—	—	5
Employment			
Employed	81	6	1,477
Not Employed	17	8	166
Student/Homemaker	11	7	153
Retired or Unable to work	13	4	253
Unkown	—	—	2

◆◆= Not Reported

n = Number of respondents who report not having had their blood pressure checked within the past two years.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Breast Cancer Screening

Health Risk

Breast cancer is the second-leading cause of cancer death among Alaskan women and the most commonly diagnosed cancer among Alaskan women. The risk of breast cancer increases with age.

There is general consensus among experts that routine screening every year with mammography and clinical breast examination can reduce breast cancer mortality by about one third for women ages 50 and older.

The Alaska Breast and Cervical Cancer Early Detection Program recommends that women ages 50 and older receive an annual mammogram; women aged 40 to 49 years should receive a mammogram every 1 to 2 years based on provider/ patient counseling. A clinical breast exam is recommended every 1-3 years for women aged 20-29 and annually for women aged 30 and older.

Breast Cancer Screeening in Alaska

Definitions used in this survey:

Clinical Breast Exams: *A clinical breast exam is when the breast is felt for lumps by a doctor or other medical professional.*
Of women aged 18 and older, 89.6% had ever had a clinical breast exam. Of those women who had ever had a breast exam, 78.8% had one within the past year and an additional 11.4% had one in the previous year.

Mammography: *A mammogram is an x-ray of the breast to look for cancer.* Of all the women 18 and older, 55.5% had ever had a mammogram. Of those women 18 and older who ever had a mammogram, 87.9% reported their last one was done as part of a routine checkup, 7.2% reported it was done because of a breast problem and 3.0% because they had breast cancer.

Of women aged 40 and older, 17.4% had never had a mammogram (National BRFSS Range 8.1 to 19.4%, National BRFSS Median 13.8%).

In 1999, 19.9% of women 40 and older, never had both a mammogram and a breast exam (National BRFSS Range 11.3 to 26.7%, National BRFSS Median 18.8%). Of the women 50 and older, 26.9% never had a mammogram and a breast exam in the past two years (National BRFSS Range 19.6 to 40.7%, National BRFSS Median 31.7%).

Year 2000 National Health Objective

Increase to at least 80% the proportion of women aged 40 and older who have ever received a clinical breast exam and a mammogram, and to at least 60% those aged 50 and older who have received them within the preceding one to two years. (Objective 16.11)

Cervical Cancer Screening

Health Risk

Cervical cancer now kills an estimated 4,800 women annually in the United States, and about 12,800 new cases of cervical cancer are expected in 1999. Cervical cancer is the fifth-commonly diagnosed cancer among Alaska women.

The incidence of invasive cervical cancer has steadily decreased over the years. Cervical carcinoma in situ, (a precancerous condition) is now more frequent than invasive cancer, especially in women under 50 years of age.

The pap test is highly effective in detecting early cancer of the uterine cervix and greatly reduces the risk of mortality from invasive cervical cancer.

The Alaska Breast and Cervical Cancer Early Detection Program recommend a pelvic examination with a pap test for all women every 1-3 years beginning at age 18 or at the onset of sexual activity.

Cervical Cancer Screeening in Alaska

Definition used in this survey: Females with intact cervix-uteri who report they have had a pap smear within the past three years.

Of Alaskan females aged 18 and older (with intact cervix-uteri), 2.5% never had a pap test (National BRFSS Range 2.1 to 17.4%, National BRFSS Median 5.4%). According to this definition, 9.1% of women aged 18 and older (with intact cervix-uteri) did not have a pap test within the past three years (National BRFSS Range 9.1 to 26.9%, National BRFSS Median 14.6%).

Of the women aged 18 and older who had ever had a pap test, 74.8% were in the last year, 12.7% in the last one to two years, 5.7% within the past two to five years and 6.6% were more than five years ago.

Year 2000 National Health Objective

Increase to at least 95% the proportion of women aged 18 and older with uterine cervix who have ever received a pap test, and to at least 85% those who received a pap test within the preceding one to three years. (Objective 16.12)

Cholesterol Screening

Health Risk

High blood cholesterol is a major risk factor for coronary heart disease, the leading cause of death in the United States. It is recommended by the National Cholesterol Education Program that blood cholesterol should be measured in all adults 20 years of age and above at least once every five years and more often for patients diagnosed with high cholesterol.

Classification of Total Cholesteral Levels:

< 200 mg/dl	Desireable Blood Cholesterol
200 to 239 mg/dl	Borderline High Cholesterol
240 mg/dl	High Blood Cholesterol

Cholesterol Screeening in Alaska

Definition used in this survey: Respondents who report not having their blood cholesterol checked within the past five years.

Only 62.5% of Alaskan adults reported having had their blood cholesterol checked within the past five years, with 35% indicating no cholesterol screening within this period. It was estimated that 30% of these adults have never had their blood cholesterol checked. Of those Alaskan adults, 27.2% were females and 32.6% were males (National BRFSS range 19.7 to 40.2% with a median of 30.9%).

Of those persons that had ever had their blood cholesterol checked, 29% reported having been told their blood cholesterol was high (National BRFSS range was 21.2 to 37.1% with a median of 30%).

Year 2000 National Health Objective

Increase to at least 75% the proportion of adults who have ever had their blood cholesterol checked within the preceding five years. (Objective 15.14)

Increase to at least 60% the proportion of adults with high blood cholesterol who are aware of their condition and are taking action to reduce their blood cholesterol to recommended levels. (Objective 15.8)

Table 11

Prevalence of No Cholesterol Screening by Selected Demographics

Alaska BRFSS 1999

	n	%	N	95% CI
Gender				
Male	365	37.1	972	32.7-41.4%
Female	323	32.7	1,009	28.1-37.3%
Race				
Native	202	51.7	403	44.6-58.8%
Non-Native	471	31.4	1,543	27.9-34.8%
TOTAL	**688**	**35.0**	**1,981**	**31.9-38.2%**

	n	%	N
Age			
18-24	90	56	167
25-34	216	50	429
35-44	199	33	612
45-54	100	17	450
55-64	49	15	221
65+	29	19	161
Unknown/Refused	5	◆◆	12
Education			
Less than High School	79	39	181
High School Graduate or GED	315	44	726
Some College or Technical School	177	32	588
College Graduate	115	20	552
Unknown/Refused	2	◆◆	4

	n	%	N
Income			
< $15,000	92	50	188
$15,000-24,999	147	48	328
$25,000-49,999	203	32	637
$50,000-74,999	91	22	375
> $75,000	75	24	355
Unknown/Refused	80	46	168
Marital Status			
Married	307	28	1,076
Unmarried	380	42	970
Unknown/Refused	—	—	5
Employment			
Employed	477	32	1,477
Not Employed	93	55	166
Student/Homemaker	73	53	153
Retired or Unable to work	45	16	253
Unkown	—	—	2

◆◆= Not Reported

n = Respondents who report they have not had their blood cholesterol checked within the past five years.

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

Colorectal Cancer Screening

Health Risk

An estimated 56,600 Americans will die from cancers of the colon or rectum and 129,400 new cases will be diagnosed in 1999.

In Alaska for 1998, colorectal cancer was the third-leading cause of cancer deaths and the fourth-most commonly diagnosed cancer among men and women.

With early detection and treatment, stage specific survival rates for cancer of the colon and rectum have been improving.

The American Cancer Society recommends a stool blood test every year and a sigmoidoscopy every five years beginning at age 50.

Colorectal Cancer Screeening in Alaska

Among Alaskan adults 50 years and older, 69% have never had a home stool blood test. Of the adults over 50 years who have had a test, 42% had it within the past year and 17% within the past two years.

A sigmoidoscopy or proctoscope is when a tube is inserted in the rectum to view the bowel for signs of cancer and other health problems.

Of those 50 years and older, 49.6% have not had a sigmoidoscopy or protoscope; 45.6% of males and 53.8% of females over 50 years of age have never had the exam.

Year 2000 National Health Objective

Increase to at least 50% the proportion of people aged 50 and older who have received fecal occult blood testing within the preceding 1 to 2 years, and to at least 40 percent those who have ever received proctosigmoidoscopy. (Objective 16.13)

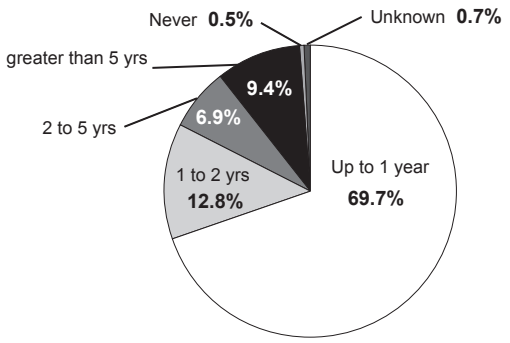
Oral Health

Health Risk

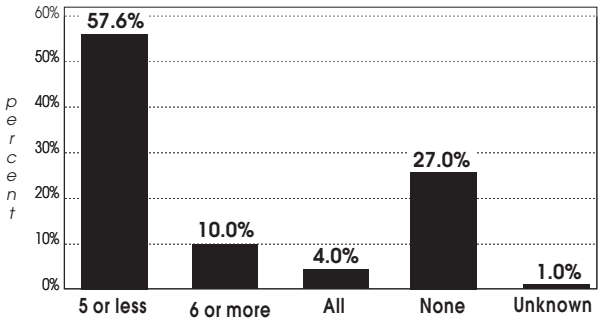
Regular care is a factor in maintaining oral health. However, nearly half the population in the United States does not obtain regular oral health care, and among low-income people, the proportion is even higher. Although the prevalence of dental cavities among children has declined since the 1940's, oral diseases remain a prevalent health problem in the United States. On average among adults (aged 40 through 44), about 1 out of 4 teeth have been affected by decay. Tooth loss is a major problem among people aged 65 and older, as well as American Indian and Alaska Native adult populations.

Water flouridation, regular self care, and avoiding harmful foods, tobacco and excessive alcohol use are also important preventive measures.

Time since last dental checkup



Number of Permanent Teeth Removed Due to Tooth Decay or Gum Disease



Oral Health in Alaska

In 1999, most Alaskan adults (69.7%) had visited a dentist or dental clinic within the past year. Of adults aged 35 and over, 70.8% had visited a dentist in the past year.

Among Alaskan adults, 4.0 % had all of their permanent teeth removed because of tooth decay or gum disease. Among adults aged 65 and older, 26% had all of their permanent teeth removed for the same reason because of tooth decay or gum disease.

Among Alaskan adults aged 35 through 44, 59.4% had never lost any permanent teeth due to dental caries or periodontal diseases.

Year 2000 National Health Objective

Increase to at least 45 percent the proportion of people aged 35 through 44 who have never lost a permanent tooth due to dental caries or periodontal deseases. (Objective 13.3)

Reduce to no more than 20 percent the proportion of people aged 65 and older who have lost all of their natural teeth. (Objective 13.3)

Increase to at least 70 percent the proportion of people aged 35 and older using the oral health care system during each year.

Pneumonia and Influenza Immunizations

Health Risk

Pneumococcal pneumonia can lead to serious infections of the lungs, causing difficulty in breathing and can be fatal. This disease kills more people in the United States each year than all other vaccine preventable diseases (CDC), resulting in about 1 out of 20 mortality cases. Because older persons are two to three times more likely to get this type of pneumonia than the general population, Alaska's immunization recommendation is for anyone age 55 and over or for those of any age with chronic illnesses to be immunized. (CDC recommends adults 65 years and older).

Influenza (flu) is responsible for an average of approximately 20,000 deaths a year in the United States and these deaths are highest among persons over 65 years and anyone of any age who has medical conditions that increase the risk for complications from influenza.

Influenza vaccination is the primary method for preventing influenza and its severe complications. The primary target groups recommended for annual vaccination are:

- groups who are at increased risk for influenza-related complications (e.g., persons aged over 65 years and persons of any age with certain chronic medical conditions);
- persons aged 50-64 years, because this group has an elevated prevalence of certain chronic medical conditions; and
- persons who live with or care for persons at high risk (e.g., health-care workers and household members who have frequent contact with persons at high risk and can transmit influenza to persons with greater risk).

Alaska's current recommendation is for individuals over 65 years of age to receive the vaccination in the early fall to winter months.

Immunizations in Alaska

Among Alaskan adults aged 65 and older 60% reported having had a flu shot in the past twelve months. For those over 65 years of age, 63.1% of the males and 56.4% of the females had the injection within the past 12 months. The national BRFSS range was from 41.5 to 74.4% with a median of 67%.

Pneumococal vaccinations for individuals over 65 years of age resulted in 44% reporting having the injection. National BRFSS range was 32.2 to 59.4% with a median of 54.9%. Among this age group of over 65 years, 53% of the women and 32% of the males reported ever having the vaccination.

Year 2000 National Health Objective

Increase pneumococcal pneumonia and influenza immunization among institutionalized chronically ill or older people: at least 80%. (Objective 20.11)

Skin Cancer

Health Risk

Skin cancer is the most common malignancy in humans and accounts for one third of newly diagnosed cancers; it will be diagnosed in roughly one of five Americans during their lifetime and greater than one million cases are diagnosed each year. Skin cancer can cause local tissue destruction, disfigurement, and even death if left untreated. Therefore, risk factors, timely recognition, treatment, and appropriate referral are critical to reducing morbidity.

The vast majority of cases (99%) occur in whites, especially those with light skin that burns easily and freckles rather than tans. Most patients affected are greater than 40 years of age at the time of diagnosis, but cases in patients younger than 30 years are not uncommon. This typically occurs on sun-exposed areas such as the head, neck, and upper trunk. The nose is the most common site of occurrence.

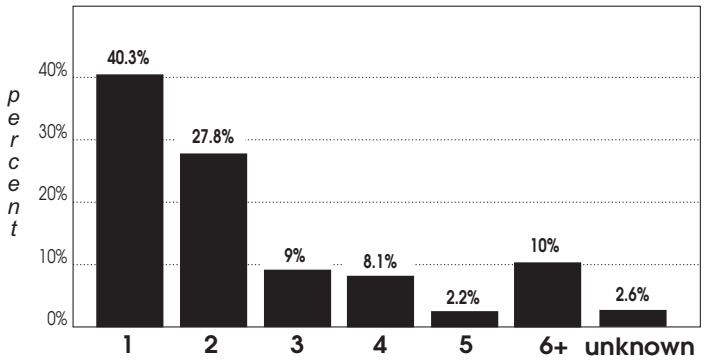
Because the causal link between UVR sun exposure and nonmelanoma skin cancer has been conclusively demonstrated, the BRFSS wanted to determine the population at risk in Alaska.

Sunburns in Alaska

The majority of Alaskans (73.1%) reported not having a sunburn within the past 12 months. Of the 26.8% who did report having a sunburn the following table outlines the number of occurances.

Sunburns in Alaska

N=554



HIV/AIDS Beliefs and Opinions

Overview

The Alaska Section of Epidemiology Bulletin from August 11, 1999 reports 702 Alaskans testing positive for HIV. Based on the diagnosis of HIV or AIDS a cumulative total from January 1, 1982 through December 31, 1999 resulted in 717 reported cases with 240 deaths.

AIDS information and education programs have increased public knowledge and influenced attitudes about HIV and AIDS, although some misinformation about HIV transmission persists. A critical step in reducing new HIV infections is for people to understand and use information about how HIV is transmitted to assess their own risks. From this, they can learn ways to change their behavior to reduce their risk of becoming infected.

Behavioral Risk Factor Survey

In 1999, only survey respondents aged 18-64 were asked the HIV and AIDS questions (1879 respondents).

The majority of Alaskan adults (64.6%) believed their chances of getting infected with HIV were none, while 26.6% believed their risk of infection was low and 3.9% thought their risk was medium. Of concern is the 2.0% that reported a high risk of getting infected.

Among Alaskan adults who have not donated blood, 49.8% had been tested for HIV. The most common reason for being tested was to see if infected, as part of a routine check up and for military service. The most common place of HIV testing was conducted at a military site, private doctors or HMO or at a community clinic.

The majority (42.9%) of Alaskan adults indicated that if they had children in school, AIDS education should begin between fourth and the sixth grade.

Year 2000 National Health Objectives

Increase health education and HIV prevention efforts and lower the incidence of new cases of HIV from projected trends.

Alaskan Beliefs and Opinions About AIDS ◆

What are your chances of getting infected with HIV?

High	2.0%
Medium	3.9%
Low	26.6%
None	64.6%
Unknown/Refused	2.8%

Have you ever been tested for HIV?

(of 1,490 respondents tested, denominator is persons aged 18-64, who have not donated blood)

Yes	49.8%
No	46.2%
Unknown/Refused	4.0%

What was the main reason you had your last test for HIV?

(of 312 respondents tested, denominator is persons ages 18-64 who have been tested for HIV)

Routine checkup	17.6%
Military	16.9%
To see if infected	27.0%
Pregnancy test	14.6%
Employment	5.3%
Occupational exposure	4.1%
Referred by sex partner	0.5%
Blood donation process	1.0%
Life insurance	3.8%
Hospitalization	2.0%
Marriage license	0.2%
Referred by doctor	0.4%
Health insurance	0.5%
Illness	1.3%
At risk for HIV	0.2%
Other	4.3%
Unknown/Refused	0.5%

Where did you have your last test for HIV?

(of 312 respondents tested, denominator is persons ages 18-64 who have been tested for HIV)

Military site	26.1%
Private doctor or HMO	18.2%
Hospital or emergency room	19.7%
Community health clinic	13.6%
Health department	5.8%
Family planning	3.3%
Other public clinic	3.9%
AIDS or STD clinic (test site)	1.2%
Company clinic/industry	0.9%
Insurance company clinic	0.8%
At home/health worker	1.1%
Blood bank	0.2%
Prenatal clinic	0.7%
Other	1.9%
Unknown/Refused	2.4%

Have you been tested for HIV?

(of 384 respondents tested, denominator is persons aged 18-64, who have donated blood)

Yes	65.2%
No	32.2%
Unknown/Refused	2.6%

◆ Denominator equals 1,879 respondents aged 18-64.

Not including blood donations, have you been tested for HIV in the past 12 months?

(denominator is of 248 respondents aged 18-64, who have donated blood and have been tested for HIV)

Yes 33.6%
No 65.3%
Unknown/Refused 1.1%

Did you receive the results of your last HIV test?

(of 312 respondents tested)

Yes 86.8%
No 12.1%
Unknown/Refused 1.1%

Did you receive counseling after getting the results of your last test?

(of 270 respondents, denominator is persons ages 18-64 who received the results of last test for HIV)

Yes 34.6%
No 64.9%
Unknown/Refused 0.5%

If you had a child in school, in what grade do you think he or she should begin HIV and AIDS education?

(denominator is persons ages 18-64)

Kindergarten 7.1%
1st - 3rd grade.....17.8%
4th - 6th grade 42.9%
7th - 9th grade 17.3%
10th - 12th grade 1.1%
Never 2.4%
Don't know or refused 11.4%

If you had a sexually active teenager, would you encourage him or her to use a condom?

(denominator is persons ages 18-64)

Yes 85.3%
No 2.6%
Would give other advice 7.2%
Unknown/Refused 4.9%

Injury Prevention

Overview

The leading killer of all Alaskans age 1 to 44 years is the unintentional injury. These injuries were ranked the third leading cause of death behind cancer and heart disease resulting in 289 deaths. Unintentional injuries include motor vehicle, pedestrian, fire, cold, animal attack, drowning, firearm, aircraft, boating and other injuries (Health Status in Alaska 2000). Males and Native Alaskans are at the greatest risk of death from these accidents and unintentional injuries are disproportionately focused within the poor, minorities and youth sectors.

Alaska has the dubious distinction of having the highest child injury death rate of any state resulting in 42.9 deaths per 100,000 compared with the national average of 26.8 per 100,000. Drownings are 5.8% higher than the national average; and firearms accidents between 1990 and 1998 resulted in 1,142 deaths. (Health Status in Alaska 2000)

Injuries are a substantial public health problem due to the high cost of medical treatments, possible lifelong disabilities and the suffering sustained by the families.

This year's BRFSS focused on the topics of child bicycle helmet use and smoke detector operation.

Bicycle helmet usage for children 5 to 15 years of age was investigated and results indicate that 29.8% seldom or never wear a helmet and 42.6% always utilize one. The Health Status in Alaska publication reported 1997 helmet usage for middle school children around 23%.

Smoke detector operation was investigated with the question of when the units were last checked for function. Most respondent (82.8%) reported checking them within 6 months; the minority (10.1%) reported never checking them; and 2.2% indicated they did not own a smoke detectors.

Risks by Region

This section provides summary tables of the prevalence of behavioral health risks for each of the five BRFSS regions in Alaska (see Appendix B).

Please note the following:

- Prevalence estimates for each region are weighted to the 18 and older population of the respective region (see Appendix D).
- Prevalence estimates are based on denominators of less than 500 (approximately 400) and are therefore rounded to the nearest whole percent.
- It is important to consider the confidence intervals when comparing prevalence estimates. Generally speaking, the smaller the sample size, the wider the range of values within which the true prevalence is believed to be.

Definitions for Tables 13-23

n = Number of respondents at risk

% = This is a weighted (adjusted) percentage of the state population (adult) at risk in this demographic subgroup, based on the survey data.

N = Total number of respondents in this subgroup, in this region.

95% CI = 95% Confidence Interval; the range of values within which the true value of a prevalence estimate would be expected to fall within, 95% of the time.

1999 BRFSS Sampling Regions

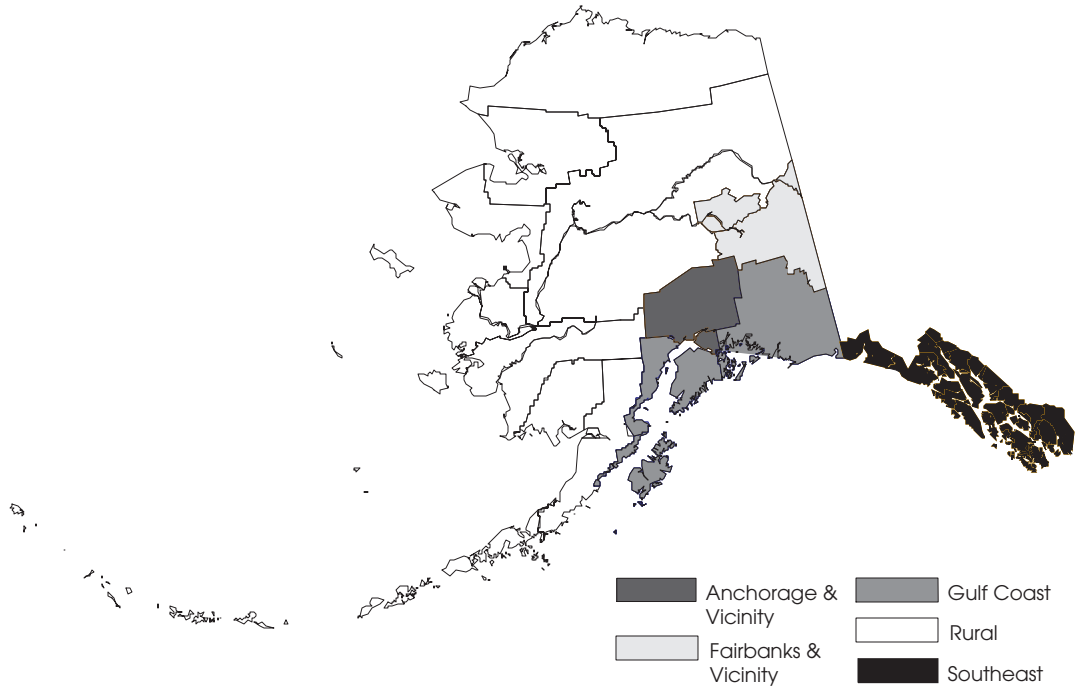


Table 13

Regional Summary
Prevalence of Select Risk Factors
Anchorage & Vicinity (Region 1)

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	45	23	181	16-29
Female	21	12	220	6-18
Total	66	17	401	13-22
Chronic Drinking				
Male	17	8	181	4-12
Female	5	2	222	0-4
Total	22	5	403	3-8
Overweight (based on old definition of body mass index)				
Male	76	41	183	33-49
Female	65	32	209	25-40
Total	141	37	392	31-43
High Blood Pressure				
Male	35	18	183	12-24
Female	50	24	224	17-31
Total	85	21	407	16-26
Current Smoking				
Male	40	19	184	13-25
Female	60	30	224	22-39
Total	100	25	408	19-30
No Health Care Plan				
Male	24	13	184	8-19
Female	35	17	224	11-23
Total	59	15	408	11-19

Table 14

Regional Summary
Prevalence of Select Risk Factors
Gulf Coast (Region 2)

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	44	23	196	16-30
Female	17	7	200	3-10
Total	61	15	396	11-19
Chronic Drinking				
Male	15	6	193	3-9
Female	2	1	200	0-2
Total	17	3	393	2-5
Overweight (based on old definition of body mass index)				
Male	73	39	196	31-47
Female	84	43	197	35-51
Total	157	41	393	35-46
High Blood Pressure				
Male	43	22	197	15-29
Female	45	22	201	16-28
Total	88	22	398	17-27
Current Smoking				
Male	61	32	195	24-39
Female	56	25	201	19-32
Total	117	29	396	24-34
No Health Care Plan				
Male	35	20	197	13-28
Female	40	21	201	15-28
Total	75	21	398	16-26

Table 15

Regional Summary
Prevalence of Select Risk Factors
Southeast (Region 3)

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	53	31	191	23-38
Female	18	12	215	4-19
Total	71	22	406	16-27
Chronic Drinking				
Male	12	5	190	2-9
Female	3	2	214	0-3
Total	15	4	404	2-6
Overweight (based on old definition of body mass index)				
Male	71	33	194	25-40
Female	88	42	211	34-50
Total	159	37	405	32-42
High Blood Pressure				
Male	43	19	194	13-24
Female	55	21	218	16-27
Total	98	20	412	16-24
Current Smoking				
Male	43	23	194	16-29
Female	59	32	217	24-40
Total	102	27	411	22-32
No Health Care Plan				
Male	24	14	193	8-19
Female	22	11	218	6-16
Total	46	12	411	9-16

Table 16

Regional Summary
Prevalence of Select Risk Factors
Rural (Region 4)

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	67	34	206	25-42
Female	26	12	193	6-19
Total	93	24	399	19-30
Chronic Drinking				
Male	15	7	204	3-11
Female	1	1	193	0-2
Total	16	4	397	2-7
Overweight (based on old definition of body mass index)				
Male	81	38	210	30-47
Female	91	45	191	36-55
Total	172	41	401	35-47
High Blood Pressure				
Male	56	26	210	18-33
Female	56	25	197	18-32
Total	112	25	407	20-31
Current Smoking				
Male	92	44	213	35-52
Female	61	32	194	22-43
Total	153	39	407	32-45
No Health Care Plan				
Male	37	20	207	13-27
Female	33	16	197	10-22
Total	70	18	404	13-23

Table 17

Regional Summary
Prevalence of Select Risk Factors
Fairbanks and Vicinity (Region 5)

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	63	33	207	25-40
Female	17	9	209	5-14
Total	80	22	416	17-26
Chronic Drinking				
Male	22	10	208	6-15
Female	2	1	206	0-2
Total	24	6	414	3-9
Overweight (based on old definition of body mass index)				
Male	75	35	213	27-42
Female	72	36	202	29-43
Total	147	35	415	30-41
High Blood Pressure				
Male	44	18	213	12-23
Female	42	22	209	16-29
Total	86	20	422	16-24
Current Smoking				
Male	63	29	213	22-36
Female	57	26	210	20-33
Total	120	28	423	23-33
No Health Care Plan				
Male	36	18	212	12-25
Female	23	13	210	7-18
Total	59	16	422	12-20

Table 18

Acute (Binge) Drinking by Region

Risk Factor	n	%	N	95% C.I.
Anchorage & Vicinity (Region 1)				
Male	45	23	181	16-29
Female	21	12	220	6-18
Total	66	17	401	13-22
Gulf Coast (Region 2)				
Male	44	23	196	16-30
Female	17	7	200	3-10
Total	61	15	396	11-19
Southeast (Region 3)				
Male	53	31	191	23-38
Female	18	12	215	4-19
Total	71	22	406	16-27
Rural (Region 4)				
Male	67	34	206	25-42
Female	26	12	193	6-19
Total	93	24	399	19-30
Fairbanks & Vicinity (Region 5)				
Male	63	33	207	25-40
Female	17	9	209	5-14
Total	80	22	416	17-26

Comparison of Risk Prevalence for Acute (Binge) Drinking by Region

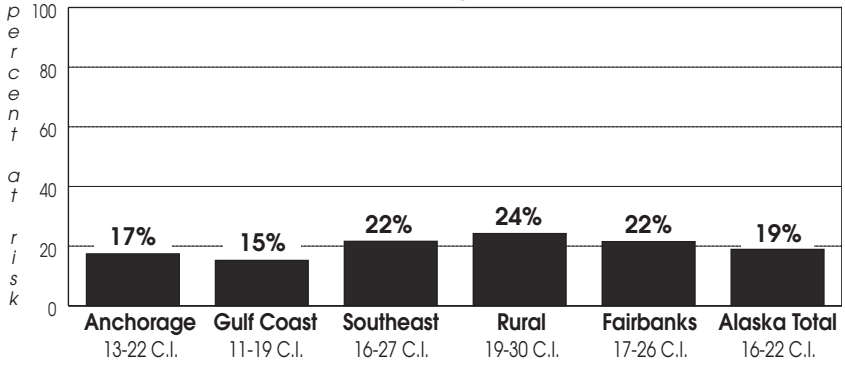


Table 19

Chronic Drinking by Region

Risk Factor	n	%	N	95% C.I.
Anchorage & Vicinity (Region 1)				
Male	17	8	181	4-12
Female	5	2	222	0-4
Total	22	5	403	3-8
Gulf Coast (Region 2)				
Male	15	6	193	3-9
Female	2	1	200	0-2
Total	17	3	393	2-5
Southeast (Region 3)				
Male	12	5	190	2-9
Female	3	2	214	0-3
Total	15	4	404	2-6
Rural (Region 4)				
Male	15	7	204	3-11
Female	1	1	193	0-2
Total	16	4	397	2-7
Fairbanks & Vicinity (Region 5)				
Male	22	10	208	6-15
Female	2	1	206	0-2
Total	24	6	414	3-9

Comparison of Risk Prevalence for Chronic Drinking by Region

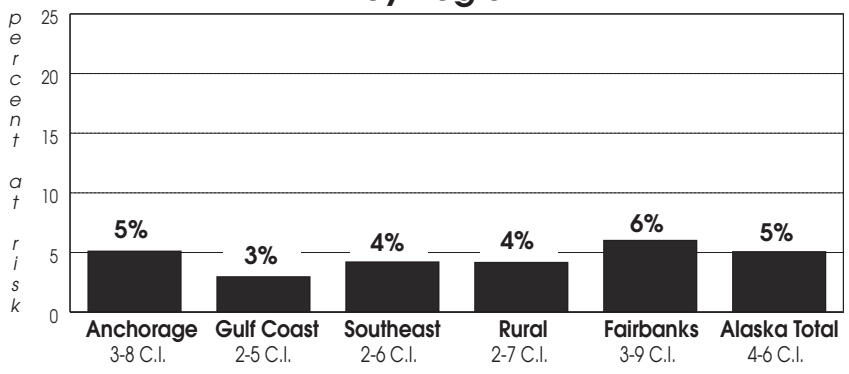


Table 20

High Blood Pressure by Region

Risk Factor	n	%	N	95% C.I.
Anchorage & Vicinity (Region 1)				
Male	35	18	183	12-24
Female	50	24	224	17-31
Total	85	21	407	16-26
Gulf Coast (Region 2)				
Male	43	22	197	15-29
Female	45	22	201	16-28
Total	88	22	398	17-27
Southeast (Region 3)				
Male	43	19	194	13-24
Female	55	21	218	16-27
Total	98	20	412	16-24
Rural (Region 4)				
Male	56	26	210	18-33
Female	56	25	197	18-32
Total	112	25	407	20-31
Fairbanks & Vicinity (Region 5)				
Male	44	18	213	12-23
Female	42	22	209	16-29
Total	86	20	422	16-24

Comparison of Risk Prevalence for High Blood Pressure by Region

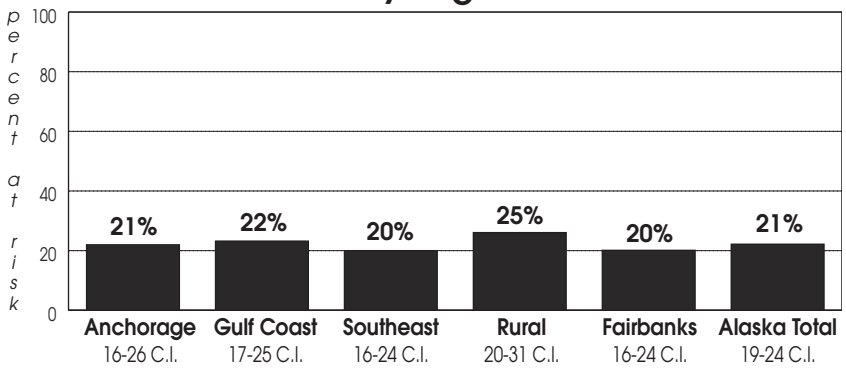


Table 21

Overweight by Region

(based on previous definition of body mass index)

Risk Factor	n	%	N	95% C.I.
Anchorage & Vicinity (Region 1)				
Male	76	41	183	33-49
Female	65	32	209	25-40
Total	141	37	392	31-43
Gulf Coast (Region 2)				
Male	73	39	196	31-47
Female	84	43	197	35-51
Total	157	41	393	35-46
Southeast (Region 3)				
Male	71	33	194	25-40
Female	88	42	211	34-50
Total	159	37	405	32-42
Rural (Region 4)				
Male	81	38	210	30-47
Female	91	45	191	36-55
Total	172	41	401	35-47
Fairbanks & Vicinity (Region 5)				
Male	75	35	213	27-42
Female	72	36	202	29-43
Total	147	35	415	30-41

Comparison of Risk Prevalence for Overweight by Region

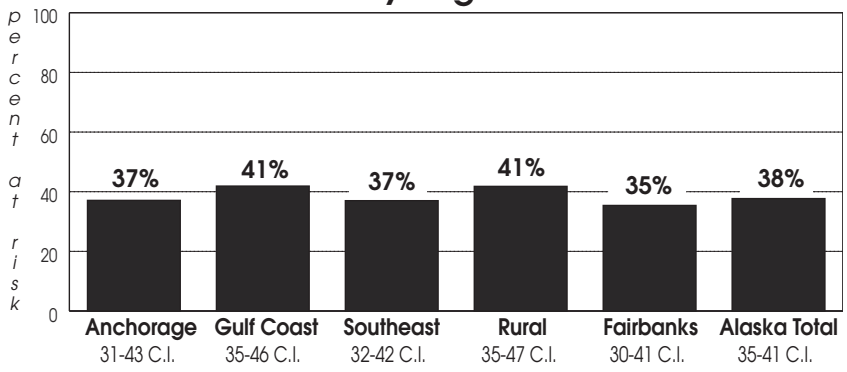


Table 22

Current Smoking by Region

Risk Factor	n	%	N	95% C.I.
Anchorage & Vicinity (Region 1)				
Male	40	19	184	13-25
Female	60	30	224	22-39
Total	100	25	408	19-30
Gulf Coast (Region 2)				
Male	61	32	195	24-39
Female	56	25	201	19-32
Total	117	29	396	24-34
Southeast (Region 3)				
Male	43	23	194	16-29
Female	59	32	217	24-40
Total	102	27	411	22-32
Rural (Region 4)				
Male	92	44	213	35-52
Female	61	32	194	22-43
Total	153	39	407	32-45
Fairbanks & Vicinity (Region 5)				
Male	63	29	213	22-36
Female	47	26	210	20-33
Total	120	28	423	23-33

Comparison of Risk Prevalence for Current Smoking by Region

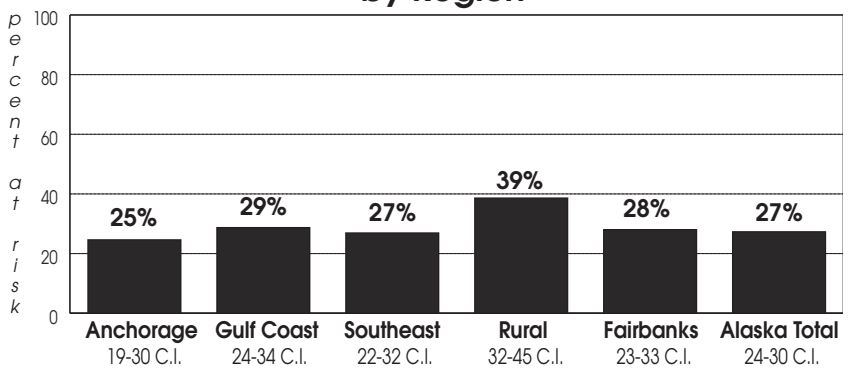
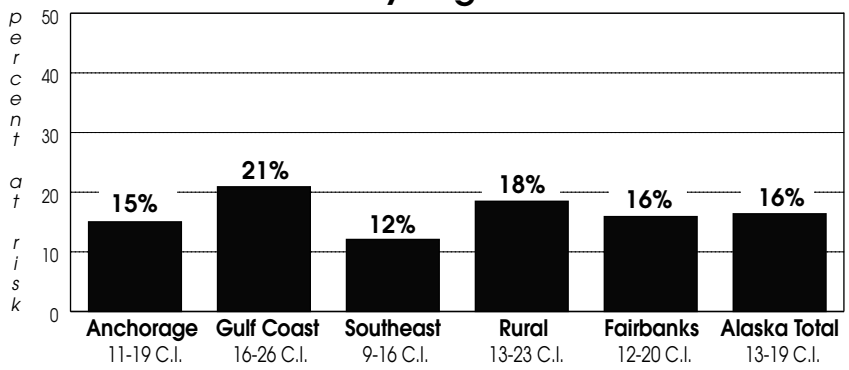


Table 23

No Health Care Plan by Region

Risk Factor	n	%	N	95% C.I.
Anchorage & Vicinity (Region 1)				
Male	24	13	184	8-19
Female	35	17	224	11-23
Total	59	15	408	11-19
Gulf Coast (Region 2)				
Male	35	20	197	13-28
Female	40	21	201	15-28
Total	75	21	398	16-26
Southeast (Region 3)				
Male	24	14	193	8-19
Female	22	11	218	6-16
Total	46	12	411	9-16
Rural (Region 4)				
Male	37	20	207	13-27
Female	33	16	197	10-22
Total	70	18	404	13-23
Fairbanks & Vicinity (Region 5)				
Male	36	18	212	12-25
Female	23	13	210	7-18
Total	59	16	422	12-20

Comparison of Risk Prevalence for No Health Care Plan by Region



Appendix A: BRFSS Definitions

Acute (Binge) Drinking: Respondents who report having five or more drinks on an occasion, one or more times in the past month.

Blood Pressure Screening: Respondents who report they have not had their blood pressure checked within the past two years

Cholesterol Screening (3): Respondents who report they have not had their cholesterol checked within the past five years

Cholesterol High: Respondents who report they have had their blood cholesterol checked and were told it was high by a health professional

Chronic Drinking: Respondents who report an average of 60 or more alcoholic drinks a month.

Current Smoking: Respondents who report ever smoking 100 cigarettes and smoke now (regularly and irregularly).

Diabetes Awareness: Respondents who report they were told by a doctor that they have diabetes.

Drinking and Driving: Respondents who report having driven after having too much to drink, one or more times in the past month.

High Blood Pressure: Respondents who report they have been told they have high blood pressure

Mammogram: Females 40 and older who report they have never had a mammogram.

Mammogram (2): Females 50 and older who report they have not had a mammogram within the past two years.

Mammogram and Clinical Breast Exam: Females 40 and older who report that they have never had a mammogram and a breast exam.

Mammogram and Clinical Breast Exam (2): Females 50 and older who report they have not had a mammogram and a breast exam within the past year.

Overweight (previous definition): Females with body mass index [weight in kilograms divided by height in meters squared (W/H**2)]>=27.3 and males with body mass index >= 27.8.

Overweight (new definition): Adults with body mass index >=25.0 and <=99.8

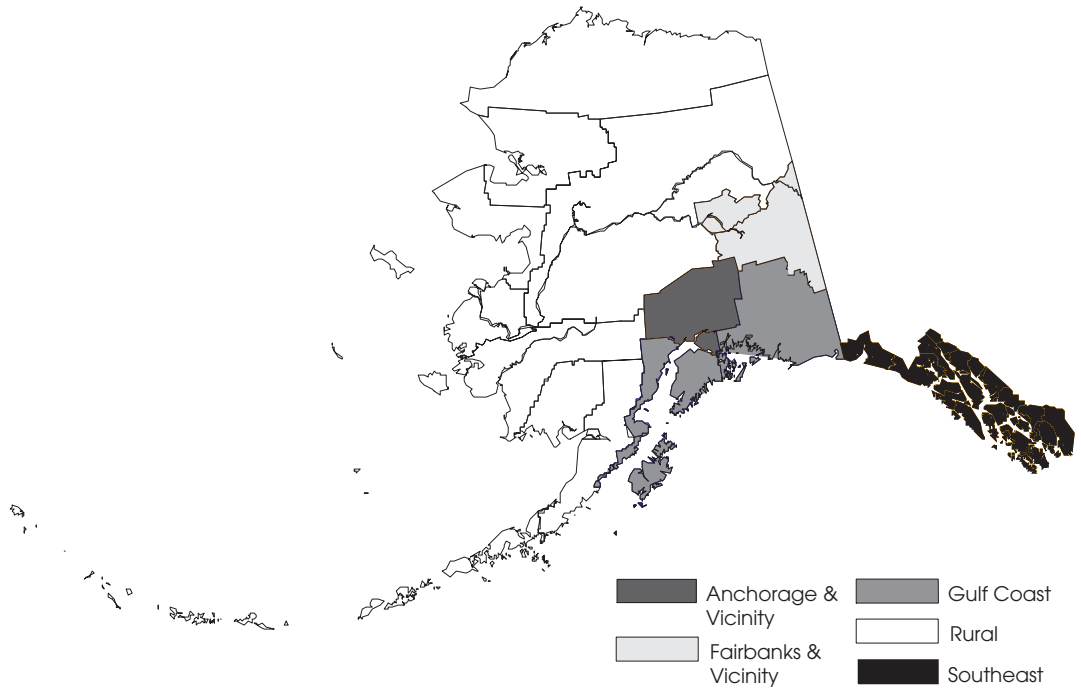
Overweight I (new sub category): Adults with body mass index >=25.0 and <=29.9

Obese (new sub category): Adults with body mass index >=30.0 and <=99.8

Pap Test: Females with intact cervix-uteri who report they have never had a pap smear test.

Pap Test (3): Females with intact cervix-uteri who report they have not had a pap smear test within the past three years.

Appendix B: 1999 BRFSS Sampling Regions



The Alaska sample was stratified into five regions based on common demographics:

	Population 18 years and older ◆	Number of interviews
Anchorage and Vicinity (Region 1) Anchorage & vicinity	220,019	408
Gulf Coast (Region 2) Kenai, Kodiak, Valdez, Cordova & vicinity	51,119	398
Southeast (Region 3) All of Southeast Alaska	51,981	412
Rural (Region 4) All other non-urban areas of Alaska	43,063	410
Fairbanks and Vicnity (Region 5) Fairbanks and vicinity	62,175	423
STATEWIDE TOTAL	**428,357**	**2,051**

◆ Alaska Population Overview: 1999 Estimates, Alaska Department of Labor and Work Force Development.

Appendix C: Alaska BRFSS Sample Design◆

	18 years and older
Anchorage and Vicinity (Region 1)	
Municipality of Anchorage	182,224
Matanuska-Susitna Borough	37,795
TOTAL	**220,019**
Gulf Coast (Region 2)	
Kenai Peninsula Borough	34,252
Kodiak Island	9,451
Valdez Cordova	7,416
TOTAL	**51,119**
Southeast (Region 3)	
Haines Borough	1,862
Juneau Borough	20,885
Ketchikan Gateway Borough	10,153
Prince of Wales	4,600
Sitka Borough	6,341
Skagway, Angoon	2,594
Yakutat Borough	504
Wrangell, Petersburg	5,042
TOTAL	**51,981**
Rural (Region 4)	
Aleutians East Borough	1,513
Aleutians West	4,031
Bethel	9,495
Bristol Bay Borough	846
Denali Borough	1,390
Dillingham	2,911
Lake and Peninsula Borough	1,106
Nome	5,646
North Slope Borough	4,503
Northwest Arctic Borough	3,890
Wade Hampton	3,627
Yukon-Koyukuk	4,105
TOTAL	**43,063**
Fairbanks and Vicinity (Region 5)	
Fairbanks-Northstar Borough	57,911
Southeast Fairbanks	4,264
TOTAL	**62,175**
STATEWIDE TOTAL	**428,357**

◆ Alaska Department of Labor and Workforce Development, Alaska Population Overview: 1999 Estimates

Appendix D: 1999 BRFSS Region Description◆

Age	Male	Female	Total Population
Anchorage and Vicinity (Region 1)			
18-24	13,916	13,462	27,378
25-34	23,675	21,131	44,806
35-44	31,673	30,264	61,937
45-54	25,153	22,758	47,911
55-64	11,361	10,316	21,677
65+	7,481	8,829	16,310
TOTAL	**113,259**	**106,760**	**220,019**
Gulf Coast (Region 2)			
18-24	2,820	2,603	5,423
25-34	4,528	3,859	8,387
35-44	7,531	6,874	14,405
45-54	6,917	5,633	12,550
55-64	3,151	2,614	5,765
65+	2,313	2,276	4,589
TOTAL	**27,260**	**23,859**	**51,119**
Southeast (Region 3)			
18-24	2,697	2,633	5,330
25-34	4,442	3,972	8,414
35-44	7,306	6,783	14,089
45-54	6,906	5,980	12,886
55-64	3,392	2,739	6,131
65+	2,408	2,732	5,131
TOTAL	**27,151**	**24,830**	**51,981**
Rural (Region 4)			
18-24	2,834	2,915	5,749
25-34	4,942	3,883	8,825
35-44	6,692	5,346	12,038
45-54	4,866	3,694	8,560
55-64	2,391	1,921	4,312
65+	1,801	1,778	3,579
TOTAL	**23,526**	**19,537**	**43,063**
Fairbanks and Vicinity (Region 5)			
18-24	4,979	4,281	9,260
25-34	7,624	6,464	14,088
35-44	8,595	8,059	16,654
45-54	6,865	5,724	12,589
55-64	3,035	2,517	5,552
65+	1,966	2,066	4,032
TOTAL	**33,064**	**29,111**	**62,175**

◆ Alaska Population Overview: 1999 Estimates.", Alaska Department of Labor and Work Force Development.

Appendix E: Alaska BRFSS 1999 Survey Population

by Age and Gender

Age	Male	Female	Total Population
Anchorage and Vicinity (Region 1)			
18-24	20	19	39
25-34	39	56	95
35-44	59	77	136
45-54	38	41	79
55-64	19	21	40
65+	9	10	19
TOTAL	**184**	**224**	**408**
Gulf Coast (Region 2)			
18-24	19	9	28
25-34	33	35	68
35-44	51	69	120
45-54	50	47	97
55-64	25	22	47
65+	18	18	36
Unknown	1	1	2
TOTAL	**197**	**201**	**398**
Southeast (Region 3)			
18-24	14	10	24
25-34	30	35	65
35-44	60	59	119
45-54	45	57	102
55-64	22	29	51
65+	22	28	50
Unknown	1	0	1
TOTAL	**194**	**218**	**412**
Rural (Region 4)			
18-24	15	12	27
25-34	44	52	96
35-44	65	56	121
45-54	45	40	85
55-64	28	22	50
65+	10	13	23
Unknown	6	2	8
TOTAL	**213**	**197**	**410**
Fairbanks and Vicinity (Region 5)			
18-24	20	29	49
25-34	56	49	105
35-44	58	58	116
45-54	46	41	87
55-64	20	13	33
65+	13	20	33
TOTAL	**213**	**210**	**423**

Appendix F: Alaska 1999 Survey Population

Age	Non-Native	Native	Total
Anchorage and Vicinity (Region 1)			
18-24	36	3	39
25-34	86	9	95
35-44	123	13	136
45-54	75	4	79
55-64	38	2	40
65+	18	1	19
TOTAL	**376**	**32**	**408**
Gulf Coast (Region 2)			
18-24	24	4	28
25-34	65	3	68
35-44	111	9	120
45-54	94	3	97
55-64	38	9	47
65+	31	5	36
Unknown	2	5	2
TOTAL	**365**	**33**	**398**
Southeast (Region 3)			
18-24	15	9	24
25-34	58	7	65
35-44	95	24	119
45-54	89	13	102
55-64	41	10	51
65+	39	11	50
Unknown	1	11	1
TOTAL	**338**	**74**	**412**
Rural (Region 4)			
18-24	5	22	27
25-34	31	65	96
35-44	50	71	121
45-54	39	46	85
55-64	23	27	50
65+	5	18	23
Unknown	2	6	8
TOTAL	**155**	**255**	**410**
Fairbanks and Vicinity (Region 5)			
18-24	45	4	49
25-34	99	6	105
35-44	109	7	116
45-54	83	4	87
55-64	29	4	33
65+	31	2	33
TOTAL	**396**	**27**	**423**

Appendix G: Telephone Coverage in Alaska◆

	Occupied Housing	Number with Telephones	Percent Total
Anchorage and Vicinity (Region 1)			
Anchorage Borough	82,702	79,890	96.59
Matanuska-Susitna	13,394	12,357	92.25
TOTAL	**96,096**	**92,247**	**95.99**
Gulf Coast (Region 2)			
Kenai Peninsula	14,250	12,858	90.23
Kodiak Island	4,083	3,752	91.89
Valdez Cordova	3,425	2,834	82.74
TOTAL	**21,758**	**19,444**	**89.36**
Southeast (Region 3)			
Haines Borough	791	589	74.46
Juneau Borough	9,902	9,422	95.15
Ketchikan Gateway	5,030	4,720	93.83
Prince of Wales	2,061	1,404	68.12
Sitka	2,939	2,720	92.54
Skagway, Yakutat, Angoon	1,422	1,117	78.55
Wrangell, Petersburg	2,514	2,172	86.39
TOTAL	**24,659**	**22,144**	**89.80**
Rural (Region 4)			
Aleutians East	533	469	87.99
Aleutian Islands	1,845	1,674	90.73
Bethel Census	3,605	2,507	69.54
Bristol Bay Borough	407	366	89.92
Dillingham	1,215	1,006	82.79
Lake and Peninsula Borough	509	342	67.19
Nome	2,371	1,727	72.83
North Slope Borough	1,673	1,342	80.21
Northwest Arctic	1,526	1,031	67.56
Wade Hampton	1,368	722	52.77
Yukon-Koyukuk	2,748	1,683	61.24
TOTAL	**17,800**	**12,869**	**72.30**
Fairbanks and Vicinity (Region 5)			
Fairbanks-Northstar	26,693	24,960	93.50
Southeast Fairbanks	1,909	1,521	79.67
TOTAL	**28,602**	**26,481**	**92.58**
STATEWIDE TOTAL	**188,915**	**173,185**	**91.67**

◆ Census of Population and Housing, 1990: Summary Tape File 2 (Alaska).

Appendix H: Alaska BRFSS Telephone Sample Generation

In order to improve and calculate the probability that all households in Alaska with telephones would have a chance of inclusion in the study, the Alaska BRFSS began using a Disproportionate Stratified Sample Design (DSS) in 1999. With this change, the Alaska BRFSS was provided a list-assisted DSS telephone sample from the Centers for Disease Control and Prevention.

DSS is a variation of cluster sampling. For DSS, information obtained from other sources is used to classify 100 number blocks of telephone numbers into two strata based on the presumed density (high or low) of residential telephone numbers (strata that are either likely or unlikely to yield residential numbers). The telephone sample is divided into one-plus banks and zero banks. These values are determined by analyzing all possible 100 blocks for an area. A hundred block is a group of one hundred working telephone numbers with the same area code, prefix, and the first two digits of the suffix.

A one-plus block is a hundred block with one or more listed residential telephone numbers. A zero block is a hundred block with no listed residential telephone numbers. A list-assisted DSS sample is one in which numbers from one-plus blocks (the likely stratum) are sampled at a higher rate than numbers from zero blocks (unlikely). The recommended sampling ratio between one-plus blocks and zero blocks is 4:1. Since the rural region of Alaska has as many as 80% of phone banks that are zero blocks, the sampling ratio is 8:1 in Region 4. This ratio was determined in consultation with the CDC.

Because Alaska has such a low number of active residential lines, Alaska requires a large amount of phone sample each month to operate successfully. To improve efficiency, the telephone sample is prescreened electronically, using the Genesys ID process, to identify business and non-working numbers ahead of time. In addition, this prescreening process has been enhanced (Genesys ID Plus) to increase the survey efficiency for Alaska.

Appendix I: 1999 BRFSS Response Rates

Indicator	BRFSS Objective	BRFSS Median	Alaska Achieved
CASRO Response Rate	≥ 75%	55.2%	57.1%
Upper Bound Rate	≥ 90%	68.4%	70.6%
Cooperation Rate	N/A	56.7%	62.3%
Refusal Rate	≤ 10%	N/A	3.1%

Response Rates

The response rate measures the extent to which interviews were completed from among the telephone numbers selected for the sample. The higher the response rate, the lower the potential will be for bias in the data. The two estimates that are used for BRFSS provide a combination of monitoring information that are useful for program management. The formulas are described as follows:

CASRO Response Rate

The response rate developed by the Council of American Survey Research Organizations (CASRO), apportions dispositions with unknown eligibility status (ring no answer and busy) to dispositions representing eligible respondents in the same proportion that exists among calls of known status (all other BRFSS call dispositions). The resulting estimate reflects telephone sampling efficiency and the degree of cooperation among eligibles contacted.

Upper Bound Response Rate

The most liberal of response rates formulas, the upper bound calculation includes only refusals, terminations and completed interviews. The resulting estimates reflects the cooperation of eligibles contacted and is not affected by differences in telephone sampling efficiency.

Cooperation Rate

This rate is the number of completes divided by the number of identified households contacted that contain a resident 18 years or older. The resulting measure reflects the cooperation of identified eligibles and is not affected by difference in telephone sampling efficiency.

Refusals

The percentage of refusals of total dispositions in a given interviewing period is an indicator of both interviewer performance and degree of potential bias in the survey data. Ten percent or less is a generally acceptable standard.

Appendix J: Weighting

By weighting the data, the responses of persons in various subgroups are adjusted to compensate for the over-representation or underrepresentation of these persons in the survey sample. Factors that are adjusted for include the following:

- The number of telephone numbers per household;
- The number of adults in a household;
- The geographic distribution of the sample; and
- The demographic distribution of the sample.

The first three factors address the problem of unequal selection probability which could result in a biased sample that doesn't really represent the population. For example, an interviewee in a one-adult household has four times the chance of being selected for an interview as does an adult in a four-adult household. A household with two telephone numbers has twice the chance of being dialed as a household with one telephone number. The first two factors are combined to compute a raw (or unadjusted) weight. The third factor then adjusts for the differential sampling of telephone numbers in different geographic regions of the state.

Data is then further weighted. Poststratification is the method used to adjust the distribution of the sample data so that it reflects the total population of the sampled area. The poststratification factor is calculated by computing the ratio of the age, race, and sex distribution of the state population divided by that of the survey sample. This procedure is repeated for each of five regions of Alaska.

The poststratification factor is then multiplied by the raw weight to compute an adjusted, or final-weight, variable. Data from all regions are combined to form the total state's data for Alaska.

Thus, this weighting adjusts not only for variation in selection and sampling probability, but also for demographic characteristics in each region of the state. If the data were not weighted, projections could not be made from the sample to the region or to the general population.

In 1999, survey results were weighted using population estimates obtained from Claritas, 1999 Race by Age by Sex Report for All Counties Nationwide, Ithaca, New York.

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