Health Risks in Alaska
Among Adults

Alaska Behavioral Risk Factor Survey

1996 Annual Report

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Tony Knowles, Governor
State of Alaska

Karen Perdue, Commissioner
Department of Health and Social Services

Peter M. Nakamura, MD, MPH, Director
Division of Public Health

Mark S. Johnson, MPA, Chief
Section of Community Health and
Emergency Medical Services

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BRFSS Interviewers

Cindy Britten
Jacqueline Fowler
Camille Parker
Sumer Todd-Harding
JoAnn Rieselbach
Sunshine Brown
Matt Dusenberry

Report Preparation

Patricia Owen, BRFSS Coordinator
Sunshine Brown, College Intern II

Public Health Advisor

Craig Leutzinger
Centers for Disease Control and Prevention

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For additional copies of this report or more information contact:

Alaska Department of Health and Social Services
Division of Public Health
Section of Community Health and Emergency Medical Services
Health Promotion Program
P.O. Box 110616
Juneau, Alaska 99811-0616
907-465-3140
E-mail address: BRFSS@health.state.ak.us

or visit our web site at
http://www.hss.state.ak.us/dph/chems/brfss.htm

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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.

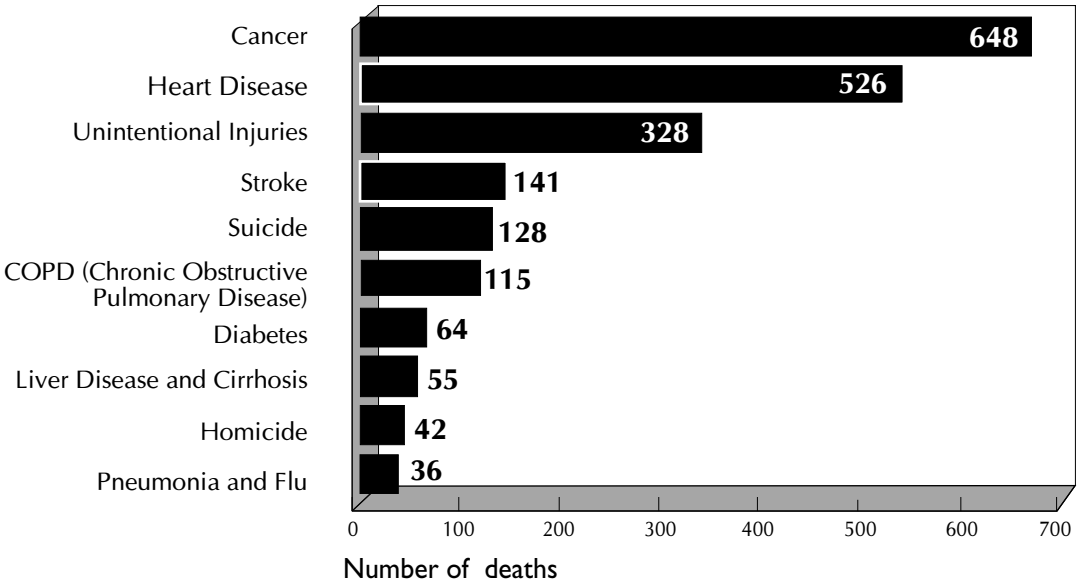
Data on behavioral risk factors are necessary for formulating intervention strategies, justifying resources to support these strategies, and proposing new policies or legislation. Surveillance of behavioral risk factors allows us to monitor trends in health behavior and particularly enables us to measure 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, 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, 128 adults, aged 18 and older are interviewed regarding their health and day-to-day living habits.

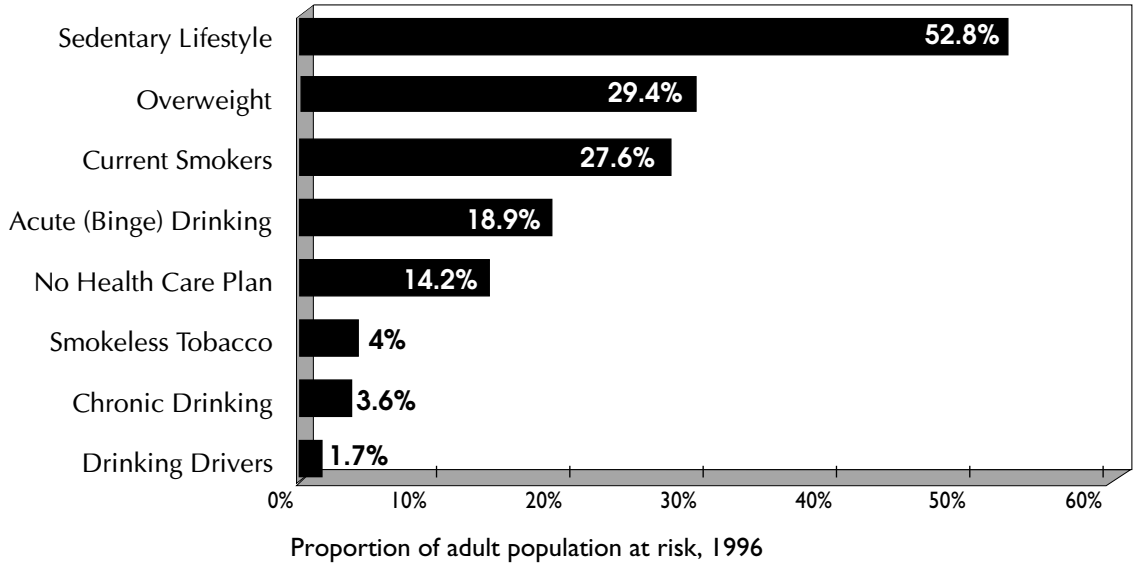
This report contains the 1996 survey results. These surveys were conducted from January through December 1996, for a total sample size of 1,536 interviews. The Division of Public Health, BRFSS continues to conduct monthly telephone surveys each year.

Leading Causes of Death in Alaska



Source: Alaska Bureau of Vital Statistics
1996 Annual Report

Behavioral Risk Factor Prevalence in Alaska



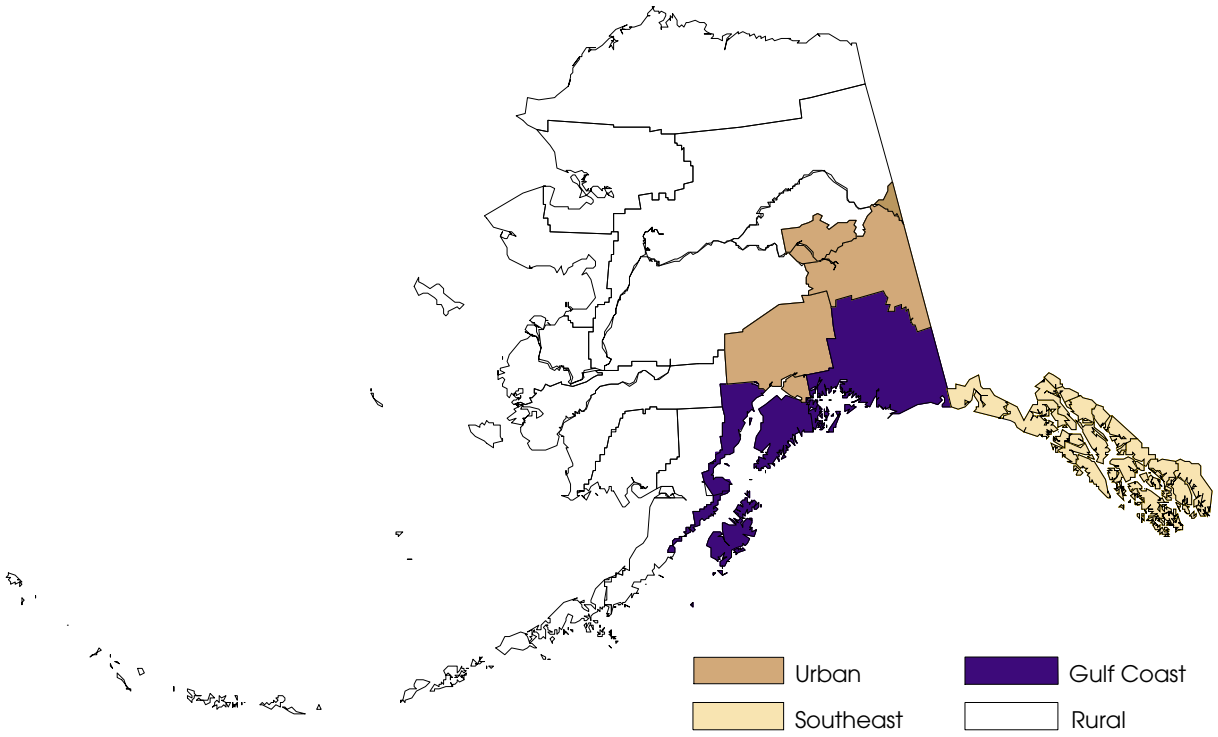
At Risk for Specific Risk Factors, 1996

Behavioral Risk Factor ◆	Proportion of Population at Risk (Prevalence)	Estimated Adults at Risk ◆◆
Sedentary Lifestyle	52.8	229,384
Overweight	29.4	127,725
Cigarette Smoking	27.6	119,905
Acute Drinking	18.9	82,109
Smokeless Tobacco	4.0	17,378
Chronic Drinking	3.6	15,640
Drinking and Driving	1.7	7,385
No Health Care Plan	14.2	61,690

◆ See Appendix A for Behavioral Risk Factor definitions.

◆◆ Based on 1996 intercensal population estimates of 434,440 adults 18 years and older in Alaska (Claritas).

1996 BRFSS Sampling Regions



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

	Population 18 years and older ◆	Number of interviews expected
Urban (Region 1) Anchorage, Fairbanks & vicinity	287,341	384
Gulf Coast (Region 2) Kenai, Kodiak, Valdez, Cordova & vicinity	50,231	384
Southeast (Region 3) All of Southeast Alaska	51,811	384
Rural (Region 4) All other nonurban areas of Alaska	45,057	384
STATEWIDE TOTAL	**434,440**	**1,536**

◆ Claritas. 1996 Race by Age by Sex Report for All Counties Nationwide. Ithaca, New York.

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. The Alaska sample was stratified into four regions based on common demographics. An equal number of interviews are conducted from each region, which purposely oversamples the nonurban areas of Alaska (see Appendix B).

Sample Size

Each month 128 Alaska residents age 18 and older are interviewed over the telephone regarding their health practices and day to day living habits, to reach an annual sample size of 1,536 (384 per region). The data in this report were collected from January through December, 1996, and are based on a sample size of 1,536 interviews.

Sampling Process

Since 1990, the telephone sample has been generated by the University of Alaska Anchorage, Institute of Social and Economic Research (ISER). In 1996, the Institute of Social and Economic Research used a combination method of computer random generation (using the RANDY method) for large exchanges and random selection from a database of entered directory numbers for small exchanges (see Appendix I).

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 1996 questionnaire covered the topics of Health Status, Health Care Access, Nutrition, Physical Activity, Diabetes, Tobacco Use (including Smokeless Tobacco), Alcohol Use, Demographics, Women's Health, Injury Prevention and Firearm Safety, and HIV/AIDS Awareness.

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, dormitories) are not surveyed.

Data Collection

In 1996, interviews were conducted by trained college interns. The interviews were conducted primarily in the evenings and on weekends, during the two weeks of every month specified by the CDC for all states.

Data was collected via computer using Ci3 CATI (Computer Assisted Telephone Interviewing) software. Monthly data files were 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 are compiled and weighted by CDC, and cross tabulations and prevalence reports are prepared.

Weighting: Unweighted data are the actual responses of each survey respondent. The data are weighted or adjusted to compensate for the overrepresentation or under-representation of persons in various subgroups. The data are further weighted to adjust the distribution of the sample data so that it reflects the total population of the sampled area. In 1996, survey results were weighted using 1996 intercensal population estimates for Alaska obtained from Claritas. (See Appendix J)

Weighting: Unweighted data are the actual responses of each survey respondent. The data are weighted or adjusted to compensate for the overrepresentation or under-representation of persons in various subgroups. The data are further weighted to adjust the distribution of the sample data so that it reflects the total population of the sampled area. In 1996, survey results were weighted using 1996 intercensal population estimates for Alaska obtained from Claritas. (See Appendix J)

Reporting: Data were analyzed by the CDC for Alaska by gender, race, age, marital status, education, income and employment. This report provides standard tables describing survey results based on gender, race (Native and Non-Native), age, marital status, education, income and employment. 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 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 ones published by the CDC and the estimates previously reported in the 1996 Behavioral Risk Factor Survey Highlights Report, April 1998.

Comparisons

All prevalence comparisons made to the National BRFSS Ranges and the National BRFSS Median are comparisons made to the 50 states participating in the

Behavioral Risk Factor Surveillance System in 1996. These comparisons were taken from the 1996 BRFSS Summary Prevalence Report produced by the CDC. State prevalence estimates used to calculate national range and median in the 1996 BRFSS Summary Prevalence Report are based on denominators which exclude missing and unknown responses, whereas prevalence estimates reported in this report are calculated using the denominator for the total sample size of 1536.

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, however, in general the Alaska survey response rates were favorable (see Appendix I).

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 1996 population estimates cited in this report.

Table 1

Survey Population by Selected Demographics

Alaska BRFSS 1996

	n	%	Weighted N
Gender			
Male	715	52.5	228,281
Female	821	47.5	206,159
Age			
18-24	118	12.0	52,327
25-34	347	25.9	112,618
35-44	431	26.9	117,029
45-54	358	17.8	77,235
55-64	139	10.0	43,273
65+	133	7.0	30,437
Unknown/Refused	10	0.4	1,521
Education			
Never Attended School	2	0.0	198
Elementary	59	2.3	10,088
Some High School	107	6.7	29,240
High School Graduate or GED	521	33.4	145,270
Some College or Technical School	449	31.1	134,919
College Graduate	397	26.4	114,648
Unknown/Refused	1	0.0	77
Income			
< $10,000	58	2.6	11,177
$10,000-14,999	80	4.2	18,137
$15,000-19,999	109	7.1	30,912
$20,000-24,999	118	8.0	34,848
$25,000-34,999	239	18.3	79,536
$35,000-49,999	280	18.0	78,373
$50,000-74,999	290	19.0	82,690
> $75,000	225	15.9	69,034
Unknown/Refused	137	6.8	29,735

	n	%	Weighted N
Race			
Native	319	12.4	53,747
Non-Native	1,206	87.2	378,914
Unknown/Refused	11	<1	1,780
Marital Status			
Married	879	62.1	269,893
Divorced	210	10.0	43,646
Widowed	79	3.1	13,368
Separated	33	1.8	7,628
Never Married	284	19.4	84,137
Unmarried Couple	48	3.6	15,577
Unknown/Refused	3	0.0	192
Employment			
Employed	922	64.5	280,006
Self employed	179	9.4	40,815
Out of work one year or longer	26	1.3	5,827
Out of work one year or less	74	4.4	19,255
Homemaker	134	7.6	33,211
Student	29	2.4	10,467
Retired or unable to work	170	10.2	44,367
Unknown	2	0.1	492
TOTAL	**1,536**	**100**	**434,440**

N = Number of survey respondents in this demographic subgroup. Total sample size = 1,536.

% = 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, generalized to 1996 intercensal population estimates for Alaska (Claritas).

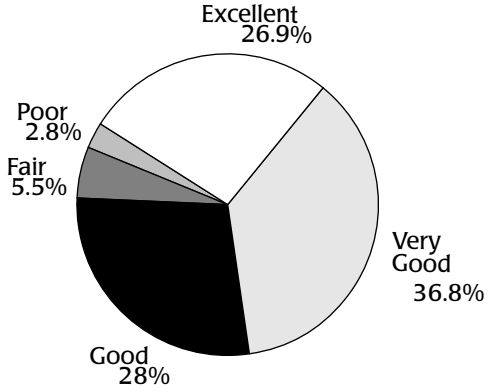
Quality of Life

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 1996, 63.7% of Alaskan adults rated their own health as excellent or good. Only 8.3% of Alaskans rated their health as fair or poor. (National BRFSS Range 8.27 to 22.78%, National BRFSS Median 12.90%). Of those surveyed, 26.9% rated their health excellent, 36.8% as very good, 28% as good, 5.5% as fair and 2.8% as poor.

How Alaskans Rate Their Own Health



Recent Physical Health: Alaskan adults reported an average of 2.1 days out of the past 30 days when their physical health was not good (National BRFSS Range 2.04 to 3.72 days, National BRFSS Median 2.98 days). Alaskan males reported an average of 1.7 days during the past month when their physical health was not good. Alaskan females reported an average of 2.5 days during the past month when their physical health was not good.

Recent Mental Health: Alaskan adults reported an average of 3.0 days out of the past 30 days when their mental health was not good (National BRFSS Range 1.75 to 4.59 days, National BRFSS Median 2.97 days). Alaskan males reported an average of 2.7 days during the past month when their mental health was not good. Alaskan females reported an average of 3.4 days during the past month when their mental health was not good.

Recent Activity Limitations: Alaskan adults reported an average of 2.6 days during the past 30 days when their usual activities were limited due to their physical or mental health (National BRFSS Range 2.54 to 6.48 days, National BRFSS Median 3.40 days). Alaskan males reported an average of 2.6 days when their activities were limited during the past month and Alaskan females reported an average of 2.7 days when their activities were limited during the past month.

Year 2000 National Health Objective

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 fatal intentional injuries such as suicides and homicides; and victims are intoxicated in approximately one-third of all homicides, drownings, and boating deaths. Alcohol is the principal contributor to cirrhosis, which is the ninth leading cause of death in the United States. Alcohol use during pregnancy is the leading preventable cause of birth defects.

From 1992-1994, alcohol accounted for 11.2% of the deaths in Alaska.

Alcohol Use in Alaska

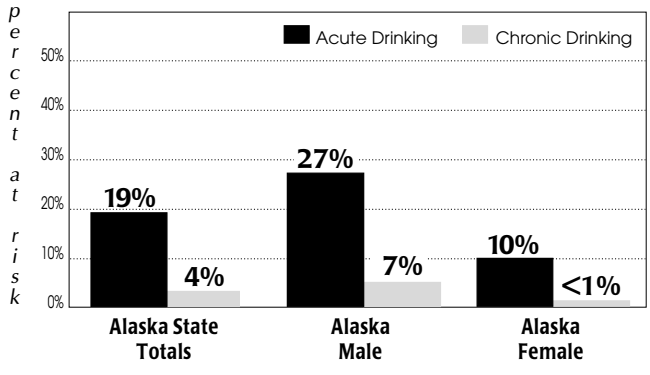
Definitions used in this survey:

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.*

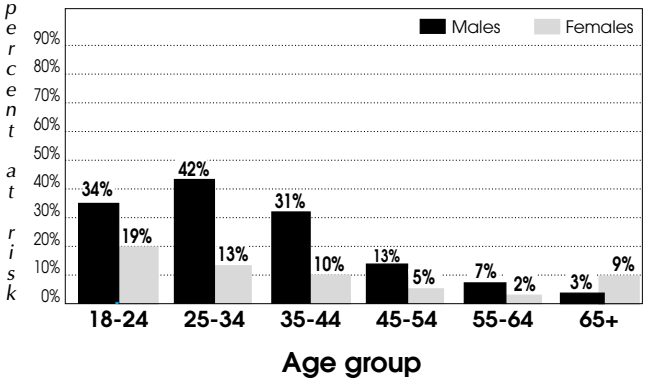
Drinking and Driving: *Respondents who report having driven after having too much to drink, one or more times in the past month.*

Comparison of Risk Prevalence for Alchohol Use



At Risk for Acute Drinking in Alaska

By age and gender



In 1996, 61.7% of those surveyed, reported drinking alcohol in the past month. Among males, 66.8% reported drinking alcohol in the past month, and among females, 55.9% reported drinking alcohol in the past month.

An estimated 18.9% of Alaskan adults engaged in acute (binge) drinking. Of the males, 26.9% engaged in binge drinking and of the females 10% engaged in binge drinking. Men are more likely than women to engage in binge drinking in every age group over 18.

An estimated 3.6% of Alaskan adults were at risk for chronic drinking. Of males, 6.5% had more than 60 drinks during the past month and of females, 0.4% had more than 60 drinks during the past month.

An estimated 1.7% of Alaskan adults engaged in drinking and driving during the past month. Of men, 2.8% reported drinking and driving during the past month and of women, 0.4% 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 1996 BRFSS.

Table 2

Prevalence of Acute (Binge) Drinking by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	193	26.9	715
95% Confidence Interval (22.0 - 31.8%)			
Female	80	10.0	821
95% Confidence Interval (6.9 - 13.1%)			
Age			
18-24	32	27	118
25-34	97	29	347
35-44	79	21	431
45-54	49	9	358
55-64	11	5	139
65+	5	6	133
Unknown/Refused	—	—	10
Education			
Never Attended School	—	—	2
Elementary	2	2	59
Some High School	14	19	107
High School Graduate or GED	116	23	521
Some College or Technical School	85	20	449
College Graduate	56	14	397
Unknown/Refused	—	—	1
Income			
< $10,000	10	13	58
$10,000-14,999	9	25	80
$15,000-19,999	21	28	109
$20,000-24,999	26	22	118
$25,000-34,999	48	23	239
$35,000-49,999	48	11	280
$50,000-74,999	56	22	290
> $75,000	37	16	225
Unknown/Refused	18	10	137
Race			
Native	69	22	319
95% Confidence Interval (15.6 - 27.8%)			
Non-Native	203	19	1,206
95% Confidence Interval (15.2 - 21.9%)			
TOTAL	**273**	**18.9**	**1,536**
95% Confidence Interval (15.8 - 21.9%)			

◆◆ = 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. Total sample size = 1,536.

Table 3

Prevalence of Chronic Drinking by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	55	6.5	715
95% Confidence Interval (4.1 - 8.9%)			
Female	5	0.4	821
95% Confidence Interval (0.0 - 0.9%)			
Age			
18-24	4	2	118
25-34	16	5	347
35-44	20	4	431
45-54	15	4	358
55-64	1	<1	139
65+	3	2	133
Unknown/Refused	1	◆◆	10
Education			
Never Attended School	—	—	2
Elementary	—	—	59
Some High School	2	1	107
High School Graduate or GED	24	4	521
Some College or Technical School	16	4	449
College Graduate	18	4	397
Unknown/Refused	—	—	1
Income			
< $10,000	1	3	58
$10,000-14,999	1	1	80
$15,000-19,999	6	10	109
$20,000-24,999	4	3	118
$25,000-34,999	10	3	239
$35,000-49,999	16	4	280
$50,000-74,999	12	4	290
> $75,000	5	4	225
Unknown/Refused	5	2	137
Race			
Native	13	4	319
95% Confidence Interval (1.4 - 5.6%)			
Non-Native	45	4	1,206
95% Confidence Interval (2.2 - 5.0%)			
TOTAL	**60**	**3.6**	**1,536**
95% Confidence Interval (2.3 - 4.9%)			

◆◆ = Not Reported

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. Total sample size = 1,536.

Table 4

Prevalence of Drinking and Driving by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	28	2.8	715
95% Confidence Interval (1.4 - 4.2%)			
Female	8	0.4	821
95% Confidence Interval (0.1 - 0.7%)			
Age			
18-24	4	2	118
25-34	16	4	347
35-44	8	1	431
45-54	8	1	358
55-64	—	—	139
65+	—	—	133
Unknown/Refused	—	—	10
Education			
Never Attended School	—	—	2
Elementary	—	—	59
Some High School	1	1	107
High School Graduate or GED	10	2	521
Some College or Technical School	9	1	449
College Graduate	16	2	397
Unknown/Refused	—	—	1
Income			
< $10,000	1	1	58
$10,000-14,999	1	1	80
$15,000-19,999	1	3	109
$20,000-24,999	5	4	118
$25,000-34,999	5	2	239
$35,000-49,999	6	2	280
$50,000-74,999	9	1	290
> $75,000	3	1	225
Unknown/Refused	5	3	137
Race			
Native	5	2	319
95% Confidence Interval (0.1 - 3.1%)			
Non-Native	30	2	1,206
95% Confidence Interval (0.8 - 2.5%)			
TOTAL	**36**	**1.7**	**1,536**
95% Confidence Interval (0.9 - 2.4%)			

◆◆ = Not Reported

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. Total sample size = 1,536.

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.

In 1994, an estimated 14,200 adult Alaskans had been diagnosed with diabetes. In 1996, 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 and 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 1992, an estimated $92 billion in direct and indirect costs were spent on diabetes. In Alaska, the medical care costs related to diabetes treatment were estimated to be $143 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. Among men, 3.4% reported being told that they had diabetes and among women 3.5% reported being told that they had diabetes. Among women, 0.8% reported being told they had diabetes during pregnancy.

Table 5

Prevalence of Diabetes Awareness by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	20	3.4	715
95% Confidence Interval (1.3 - 5.6%)			
Female	26	3.5	821
95% Confidence Interval (1.5 - 5.6%)			
Age			
18-24	—	—	118
25-34	7	5	347
35-44	4	1	431
45-54	17	4	358
55-64	7	6	139
65+	9	11	133
Unknown/Refused	2	◆◆	10
Education			
Never Attended School	—	—	2
Elementary	—	—	59
Some High School	4	3	107
High School Graduate or GED	20	5	521
Some College or Technical School	13	3	449
College Graduate	9	3	397
Unknown/Refused	—	—	1
Income			
< $10,000	2	5	58
$10,000-14,999	4	6	80
$15,000-19,999	4	5	109
$20,000-24,999	4	3	118
$25,000-34,999	11	7	239
$35,000-49,999	5	2	280
$50,000-74,999	6	2	290
> $75,000	5	3	225
Unknown/Refused	5	2	137

	n	%	N
Race			
Native	9	4	319
95% Confidence Interval (0.0 - 8.2%)			
Non-Native	35	3	1,206
95% Confidence Interval (1.8 - 5.0%)			
Marital Status			
Married	24	3	879
Divorced	8	6	210
Widowed	6	8	79
Separated	2	◆◆	33
Never Married	6	3	284
Unmarried Couple	—	—	48
Unknown/Refused	—	—	3
Employment			
Employed	22	3	922
Self employed	3	1	179
Out of work one year or longer	—	—	26
Out of work one year or less	—	—	74
Homemaker	5	7	134
Student	—	—	29
Retired or unable to work	16	13	170
Unknown	—	—	2
TOTAL	**46**	**3.5**	**1,536**

95% Confidence Interval (2.0 - 5.0%)

◆◆ = Not Reported

n = Number of respondents who report ever told by a 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. Total sample size = 1,536.

Nutrition

Health Risk

Dietary factors are associated with five of the ten leading causes of death, including coronary heart disease, some types of cancer, stroke, noninsulin-dependent diabetes mellitus and atherosclerosis.

*The Dietary Guidelines for Americans (*1995) recommend that one should do the following to stay healthy:

- eat a variety of foods,
- balance the food you eat with physical activity-maintain or improve your current weight,
- choose a diet with plenty of grain products, vegetables, and fruits,
- choose a diet low in fat, saturated fat, and cholesterol,
- choose a diet moderate in sugars, salt and sodium, and
- if you drink, do so in moderation.

Consumption of fruits and vegetables may reduce the risk of chronic diseases including some types of cancer, heart disease and stroke.

Fruit and Vegetable Consumption in Alaska

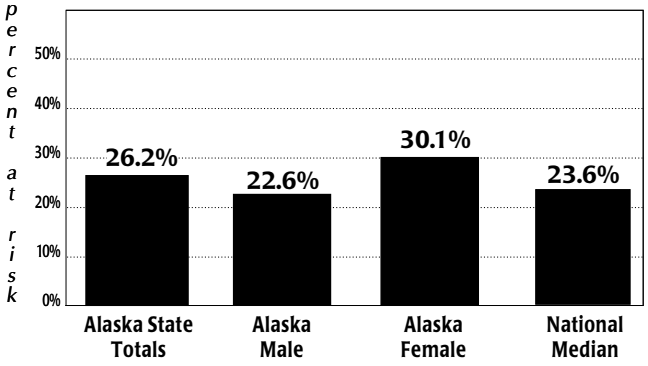
Only 26.2% of Alaskan adults consumed five or more servings of fruits and vegetables per day (National BRFSS Range 13.91 to 34.24%, National BRFSS Median 23.58%). More females (30.1%) than males (22.6%) consumed fruits and vegetables five or more times per day. Among Alaskan adults, 3.1% ate less than one serving of fruits and vegetables a day, 32.6% ate one to two servings daily and 38.2% ate three to four servings daily.

Year 2000 National Health Objectives

Reduce dietary fat intake to an average of 30% of calories or less and average saturated fat intake to less than 10% of calories among people aged two and older. (Objective 2.5)

Increase complex carbohydrate and fiber containing foods in the diets of adults to five or more daily servings for fruits and vegetables, and to six or more daily servings for grain products. (Objective 2.6)

Comparison of Risk Prevalence for Fruit & Vegetable Consumption



National BRFSS Range 13.91 - 34.24%, Median 23.58%

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 cancers.

Studies reveal that reduction in body weight can lower blood pressure and improve blood cholesterol levels in overweight individuals and in individuals who have high blood pressure or blood cholesterol.

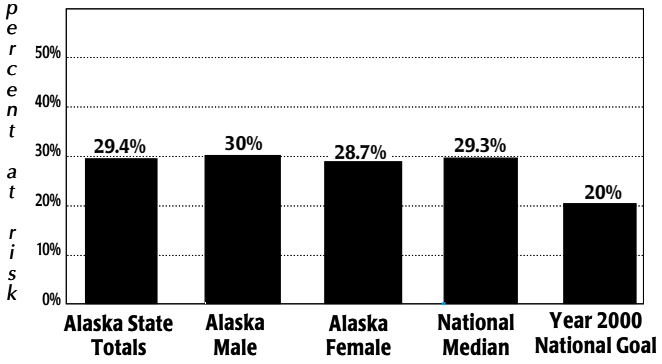
Overweight in Alaska

Definition used in this survey:

Overweight: *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.*

According to this definition, based on body mass index, 29.4% of Alaskans were overweight (National BRFSS Range 22.32 to 34.68%, National BRFSS Median 29.28%). Among men, 30% were overweight and among women, 28.7% were overweight. This is higher than the Year 2000 goal of 20%.

Comparison of Risk Prevalence for Overweight (2)



National BRFSS Range 22.32 - 34.68%, Median 29.28%

Weight Control in Alaska

During 1996, 37.0% of Alaskan adults reported they were trying to lose weight. Among men, 29.9% were trying to lose weight and among women, 44.8% were trying to lose weight. Of those who were not trying to lose weight, 52.1% were trying to keep from gaining weight (maintaining current weight). Of those surveyed, 10.6% reported being advised by a health professional in the past month to lose weight. Of those trying to lose weight or maintain their current weight, 10.2% were eating fewer calories, 38.9% were eating less fat and 30.1% were eating fewer calories and less fat. Of those trying to lose weight or maintain their current weight, 65.9% were using physical activity or exercise to lose or maintain their weight.

Of the people surveyed who were overweight based on body mass index, 46.8% were eating fewer calories and/or less fat and exercising to lose weight (National BRFSS Range 25.33 to 50.36%, National BRFSS Median 41.84%).

Year 2000 National Health Objective

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)

Table 6

Prevalence of Overweight by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	222	30.0	715
95% Confidence Interval		(24.9 - 35.1%)	
Female	246	28.7	821
95% Confidence Interval		(24.0 - 33.3%)	
Age			
18-24	18	16	118
25-34	78	21	347
35-44	135	32	431
45-54	121	34	358
55-64	60	41	139
65+	54	45	133
Unknown/Refused	2	◆◆	10
Education			
Never Attended School	1	◆◆	2
Elementary	29	47	59
Some High School	42	44	107
High School Graduate or GED	171	29	521
Some College or Technical School	140	31	449
College Graduate	85	23	397
Unknown/Refused	—	—	1
Income			
< $10,000	22	37	58
$10,000-14,999	33	40	80
$15,000-19,999	34	28	109
$20,000-24,999	39	31	118
$25,000-34,999	77	29	239
$35,000-49,999	78	28	280
$50,000-74,999	93	34	290
> $75,000	60	24	225
Unknown/Refused	32	22	137

	n	%	N
Race			
Native	126	37	319
95% Confidence Interval		(29.5 - 45.0%)	
Non-Native	337	28	1,206
95% Confidence Interval		(24.4 -32.1%)	
Marital Status			
Married	275	31	879
Divorced	73	33	210
Widowed	25	39	79
Separated	11	◆◆	33
Never Married	64	18	284
Unmarried Couple	20	◆◆	48
Unknown/Refused	—	—	3
Employment			
Employed	267	29	922
Self employed	64	32	179
Out of work one year or longer	8	◆◆	26
Out of work one year or less	23	33	74
Homemaker	42	35	134
Student	3	◆◆	29
Retired or unable to work	61	33	170
Unknown	—	—	2
TOTAL	**468**	**29.4**	**1,536**

95% Confidence Interval (25.9 - 32.9%)

◆◆ = Not Reported

n = Number of respondents who are overweight based on Body Mass Index (BMI).

% = 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. Total sample size = 1,536

Physical Activity and Sedentary Lifestyle

Health Risk

The health benefits of physical activity are significant. Regular physical activity reduces the risk of premature death in general and in particular greatly reduces the risk of dying from coronary heart disease, the second leading cause of death in Alaska. Physical activity also reduces the risk of developing diabetes, hypertension, and colon cancer. In addition, physical activity enhances mental health, fosters healthy muscles, bones and joints and helps maintain function and preserve independence in older adults.

Sedentary Lifestyle in Alaska

Definitions for this survey:

Sedentary Lifestyle: *Respondents who report no physical activity or a physical activity or pair of physical activities that were done for 20 minutes or less, fewer than three times per week.*

No Physical Activity *(Physically Inactive)**: Respondents who report no leisure time physical activity during the past month.*

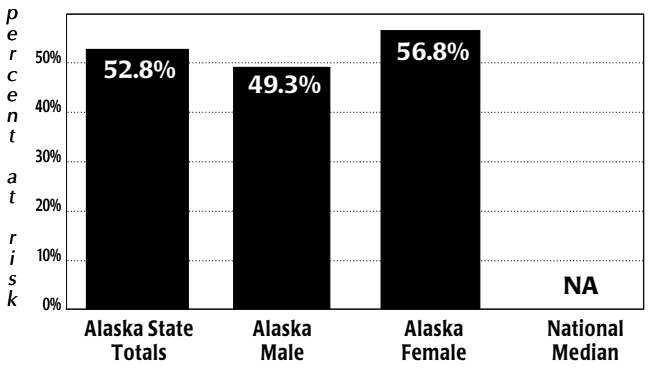
In 1996, a little more than half of Alaskan adults or 52.8% had a sedentary lifestyle. Of males, 49.3% were sedentary and of females, 56.8% were sedentary.

The proportion of adults that reported no leisure time physical activity was 25.4% (National BRFSS Range 17.12 to 51.35%, National BRFSS Median 27.78%). Of males, 20.1% reported being physically inactive and 31.2% of females reported being physically inactive.

The proportion of adults that engaged in regular and vigorous exercise was 14.1% (National BRFSS Range 6.38 to 17.93%, National BRFSS Median 14.10%).

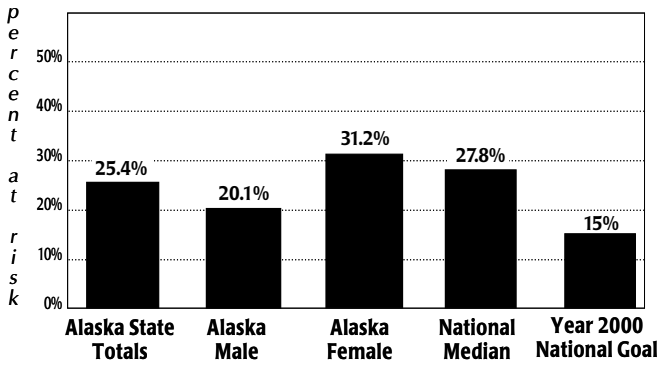
The proportion of adults that reported engaging in regular and sustained exercise was 23.8% (National BRFSS Range 10.23 to 28.44%, National BRFSS Median 21.01%). Of males, 25.5% engaged in regular and sustained exercise and 21.9% of females engaged in regular and sustained exercise.

Comparison of Risk Prevalence for Sedentary Lifestyle



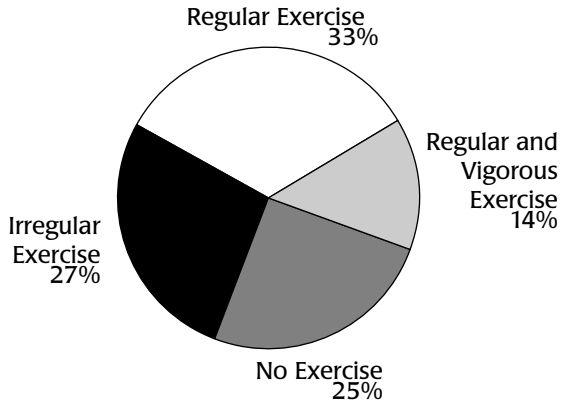
National BRFSS Range - not available

Comparison of Risk Prevalence for No Physical Activity



National BRFSS Range 17.12 - 51.35%, Median 27.78%

Physical Activity Levels of Alaskan Adults



Year 2000 National Health Objectives

Increase to at least 30% the proportion of people aged six and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes a day. (Objective 1.3)

Increase to at least 20% the proportion of people aged 18 and older and to at least 75% the proportion of children and adolescents aged 6–17 who engage in vigorous physical activity that promotes the development of cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion. (Objective 1.4)

Reduce to no more than 15% the proportion of people aged six and older who engage in no leisure time physical activity. (Objective 1.5)

Table 7

Prevalence of Sedentary Lifestyle by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	367	49.3	715
95% Confidence Interval (43.7- 54.8%)			
Female	449	56.8	821
95% Confidence Interval (51.7 - 61.8%)			
Age			
18-24	52	51	118
25-34	176	47	347
35-44	229	57	431
45-54	181	52	358
55-64	83	46	139
65+	89	72	133
Unknown/Refused	6	◆◆	10
Education			
Never Attended School	1	◆◆	2
Elementary	47	87	59
Some High School	75	59	107
High School Graduate or GED	314	60	521
Some College or Technical School	226	51	449
College Graduate	152	42	397
Unknown/Refused	1	◆◆	1
Income			
< $10,000	43	70	58
$10,000-14,999	52	69	80
$15,000-19,999	69	57	109
$20,000-24,999	71	69	118
$25,000-34,999	130	53	239
$35,000-49,999	142	48	280
$50,000-74,999	127	45	290
> $75,000	109	51	225
Unknown/Refused	73	53	137

	n	%	N
Race			
Native	211	63	319
95% Confidence Interval (54.0 - 71.7%)			
Non-Native	602	52	1,206
95% Confidence Interval (47.4 - 55.8%)			
Marital Status			
Married	475	54	879
Divorced	109	50	210
Widowed	53	63	79
Separated	19	◆◆	33
Never Married	136	50	284
Unmarried Couple	23	◆◆	48
Unknown/Refused	1	◆◆	3
Employment			
Employed	475	53	922
Self employed	95	55	179
Out of work one year or longer	16	◆◆	26
Out of work one year or less	41	42	74
Homemaker	69	46	134
Student	10	◆◆	29
Retired or unable to work	109	60	170
Unknown	1	◆◆	2
TOTAL	**816**	**52.8**	**1,536**
95% Confidence Interval (49.0 - 56.7%)			

◆◆ = Not Reported

n = Number of respondents who report no leisure time physical activity or irregular physical activity.

% = 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. Total sample size = 1,536.

Table 8

Prevalence of Physically Inactive by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	160	20.1	715
95% Confidence Interval		(15.7 - 24.6%)	
Female	240	31.2	821
95% Confidence Interval		(26.3 - 36.1%)	
Age			
18-24	24	25	118
25-34	71	20	347
35-44	97	23	431
45-54	94	26	358
55-64	41	22	139
65+	69	56	133
Unknown or Refused	4	◆◆	10
Education			
Never Attended School	1	◆◆	2
Elementary	37	71	59
Some High School	48	38	107
High School Graduate or GED	159	28	521
Some College or Technical School	103	25	449
College Graduate	51	15	397
Unknown/Refused	1	◆◆	1
Income			
< $10,000	28	42	58
$10,000-14,999	34	54	80
$15,000-19,999	44	31	109
$20,000-24,999	33	26	118
$25,000-34,999	71	29	239
$35,000-49,999	64	25	280
$50,000-74,999	43	13	290
> $75,000	40	21	225
Unknown/Refused	43	33	137

	n	%	N
Race			
Native	123	37	319
95% Confidence Interval		(29.3 - 45.1%)	
Non-Native	275	24	1,206
95% Confidence Interval		(20.1 - 27.4%)	
Marital Status			
Married	218	26	879
Divorced	71	30	210
Widowed	39	41	79
Separated	11	◆◆	33
Never Married	52	18	284
Unmarried Couple	9	◆◆	48
Unknown/Refused	—	—	3
Employment			
Employed	209	24	922
Self employed	40	19	179
Out of work one year or longer	11	◆◆	26
Out of work one year or less	22	29	74
Homemaker	36	25	134
Student	4	◆◆	29
Retired or unable to work	77	41	170
Unknown	1	◆◆	2
TOTAL	**400**	**25.4**	**1,536**
95% Confidence Interval		(22.1 - 28.7%)	

◆◆ = Not Reported

n = Number of respondents who report no leisure time physical activity.

% = This is a weighted 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. Total sample size = 1,536.

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 400,000 deaths in the United States each year. Smoking accounts for 21% of all coronary heart disease deaths, 87% of lung cancer deaths, and 30% of all cancer deaths. From 1992 to 1994, smoking accounted for 19.8% of the deaths in Alaska.

Cigarette smoking during pregnancy accounts for 20 to 30% of low birth weight babies, up to 14% of preterm deliveries, and about 10% of all infant deaths.

Smoking In Alaska

Current smoking *definition used in this survey: Respondents who have smoked at least 100 cigarettes in their entire life and smoke now (regularly and irregularly).*

Among Alaskan adults, 27.6% currently smoked cigarettes (National BRFSS Range 15.91 to 31.66%, National BRFSS Median 23.51%). The prevalence was higher among males (30.7%) than females (24.1%).

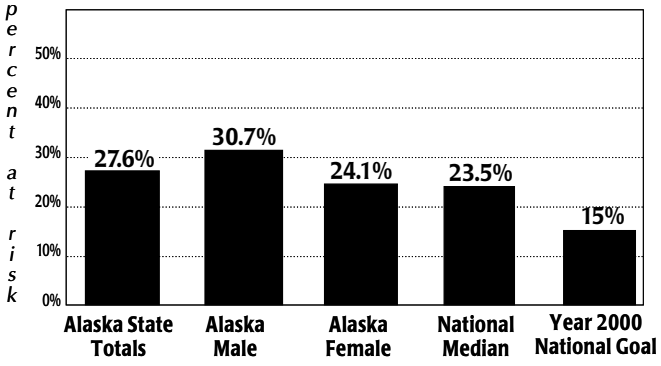
Over half of all the people surveyed (53.6%) had smoked at least 100 cigarettes in their lifetime. Of all the people who had smoked during their lifetime, approximately a quarter (26%) had quit. Many (65.6%) former smokers quit smoking more than five years ago. Half (45.3%) of the current smokers had 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 Cigarette Smoking



National BRFSS Range 15.91 - 31.66%, Median 23.51%

Table 9

Prevalence of Cigarette Smoking by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	220	30.7	715
95% Confidence Interval		(25.6 - 35.9%)	
Female	233	24.1	821
95% Confidence Interval		(20.0 - 28.3%)	
Age			
18-24	43	28	118
25-34	104	28	347
35-44	136	31	431
45-54	101	28	358
55-64	40	28	139
65+	27	12	133
Unknown/Refused	2	◆◆	10
Education			
Never Attended School	—	—	2
Elementary	13	24	59
Some High School	53	44	107
High School Graduate or GED	194	37	521
Some College or Technical School	133	27	449
College Graduate	60	12	397
Unknown/Refused	—	—	1
Income			
< $10,000	22	41	58
$10,000-14,999	33	53	80
$15,000-19,999	50	42	109
$20,000-24,999	47	35	118
$25,000-34,999	76	30	239
$35,000-49,999	83	22	280
$50,000-74,999	69	24	290
> $75,000	29	16	225
Unknown/Refused	44	32	137

	n	%	N
Race			
Native	139	47	319
95% Confidence Interval		(38.6 - 55.6%)	
Non-Native	310	25	1,206
95% Confidence Interval		(21.3 - 28.5%)	
Marital Status			
Married	214	24	879
Divorced	82	43	210
Widowed	30	29	79
Separated	11	◆◆	33
Never Married	100	30	284
Unmarried Couple	16	◆◆	48
Unknown/Refused	—	—	3
Employment			
Employed	253	27	922
Self employed	50	31	179
Out of work one year or longer	12	◆◆	26
Out of work one year or less	46	55	74
Homemaker	36	20	134
Student	7	◆◆	29
Retired or unable to work	49	27	170
Unknown	—	—	2
TOTAL	**453**	**27.6**	**1,536**
95% Confidence Interval		(24.3 - 30.9%)	

◆◆ = 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. Total sample size = 1,536.

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 1988, 6.6% of males aged 12 through 17 had used some form of smokeless tobacco in the preceding month.

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

Smokeless Tobacco Use in Alaska

Of all Alaskan adults, 24.7% reported to have ever used or tried chewing tobacco or snuff or both. Of men, 39.9% had used or tried such products, and 7.7% of women.

Among Alaskan adults, 4% were current smokeless tobacco users. The prevalence of smokeless tobacco use was higher among males (6.7%) than females (1.1%).

Among the 18 to 24 year old males, 6% used smokeless tobacco and among the 18 to 24 year old females, almost 0% used smokeless tobacco.

Year 2000 National Health Objective

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

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 as well as to other health care. 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 85.5% of Alaskan adults had some kind of health care plan. According to this survey, 14.2% of Alaskan adults did not.

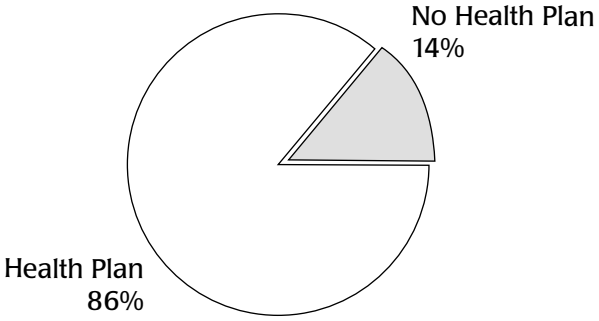
In total, 13.2% of Alaskan adults reported needing to see a doctor in the last year, but could not due to the cost. Of Alaskan females, 14.0% reported not being able to see a doctor due to the cost compared to 12.4% of Alaskan males.

In total, 65.2% of Alaskan adults had visited a doctor within the last year for a routine checkup. Of Alaskan males, 54.7% had visited a doctor for a routine checkup in the last year compared to 76.7% of females.

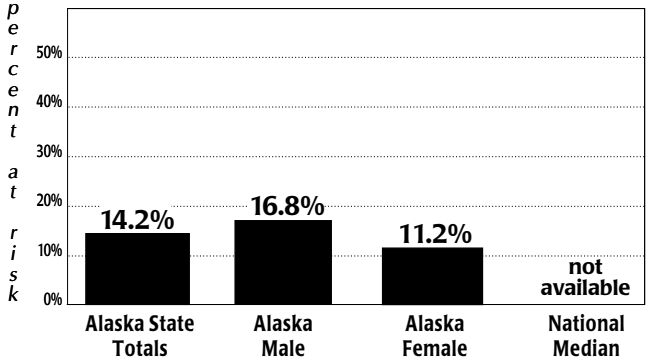
Year 2000 National Health Objective

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)

Alaskan Adults with No Health Care Plan



Comparison of Risk Prevalence for No Health Care Plan



Routine Checkup by a Doctor within the Past Year

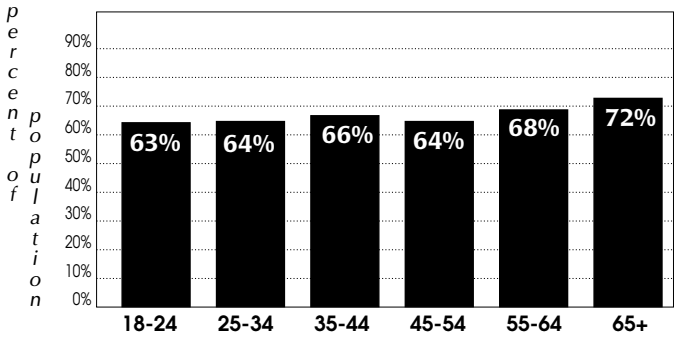


Table 10

Prevalence of No Health Care Plan by Selected Demographics

Alaska BRFSS 1996

	n	%	N
Gender			
Male	111	16.8	715
95% Confidence Interval	(12.5 - 21.1%)		
Female	110	11.2	821
95% Confidence Interval	(8.2 - 14.2%)		
Age			
18-24	33	26	118
25-34	51	14	347
35-44	69	16	431
45-54	41	10	358
55-64	20	10	139
65+	6	3	133
Unknown/Refused	1	◆◆	10
Education			
Never Attended School	—	—	2
Elementary	10	11	59
Some High School	23	30	107
High School Graduate or GED	98	18	521
Some College or Technical School	60	13	449
College Graduate	29	8	397
Unknown/Refused	1	◆◆	1
Income			
< $10,000	21	57	58
$10,000-14,999	24	32	80
$15,000-19,999	32	37	109
$20,000-24,999	17	14	118
$25,000-34,999	46	20	239
$35,000-49,999	31	9	280
$50,000-74,999	15	5	290
> $75,000	8	2	225
Unknown/Refused	27	19	137

	n	%	N
Race			
Native	40	10.8	319
95% Confidence Interval	(38.6 - 55.6%)		
Non-Native	181	14.7	1,206
95% Confidence Interval	(21.3 - 28.5%)		
Marital Status			
Married	88	9	879
Divorced	43	27	210
Widowed	12	9	79
Separated	3	◆◆	33
Never Married	62	23	284
Unmarried Couple	12	◆◆	48
Unknown/Refused	1	◆◆	3
Employment			
Employed	97	13	922
Self employed	46	23	179
Out of work one year or longer	5	◆◆	26
Out of work one year or less	30	38	74
Homemaker	24	12	134
Student	3	◆◆	29
Retired or unable to work	16	6	170
Unknown	1	◆◆	2
TOTAL	**221**	**14.2**	**1,536**

95% Confidence Interval
◆◆ = Not Reported

n = Number of persons who report having no kind of health care plan.

% = 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. Total sample size = 1,536.

Breast Cancer Screening

Health Risk

Breast cancer is the second leading cause of cancer death among women and accounts for nearly a third of all cancers in women. Approximately one woman in every nine will develop breast cancer in her lifetime. The risk of breast cancer increases with age.

The National Cancer Institute reports that 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 aged 50 and older.

The Alaska Breast and Cervical Cancer Early Detection Program recommends women aged 40-49 receive mammography every 1-2 years based on provider/patient counseling. Clinical breast exams are recommended every 1-3 years for women aged 20 to 30 and annually for women over 30.

Breast Cancer Screening 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, 93.0% had ever had a clinical breast exam. Of those women who had ever had a breast exam, 79.0% had one within the past year and an additional 12.4% 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, 56.5% had ever had a mammogram. Of those women 18 and older who ever had a mammogram, 81.5% reported their last one was done as part of a routine checkup, 14.3% reported it was done because of a breast problem and 1.9% because they had breast cancer.

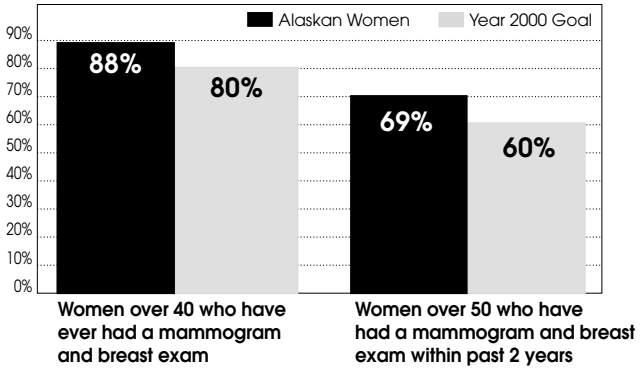
Of women aged 40 and older, 91.7% had ever had a mammogram (National BRFSS Range 71.79 to 91.66%, National BRFSS Median 83.95%).

In 1996, 88% of women 40 and older, had ever had both a mammogram and a breast exam (National BRFSS Range 68.74 to 88.04%, National BRFSS Median 79.09%). Of the women 50 and older, 69% had a mammogram and a breast exam in the past two years (National BRFSS Range 51.76 to 75.46%, National BRFSS Median 63.55%).

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)

Mammography and Breast Exams



Cervical Cancer Screening

Health Risk

Cervical cancer now kills an estimated 4,800 women annually in the United States, and about 14,500 new cases of cervical cancer are diagnosed each year. 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.

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 National Cancer Institute recommends an annual pelvic examination with a pap test for all women who are or who have been sexually active, or who have reached age 18; and less frequent exams after three consecutive normal exams at the discretion of the physician.

Cervical Cancer Screening 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), 96.9% had ever had a pap test (National BRFSS Range 90.22 to 97.18%, National BRFSS Median 94.78%). According to this definition, 92.0% of women aged 18 and older (with intact cervix-uteri) had a pap test within the past three years (National BRFSS Range 84.01 to 96.54%, National BRFSS Median 90.13%).

Of the women aged 18 and older who had ever had a pap test, 78.3% were in the last year, 10.9% in the last one to two years, 6.2% within the past two to five years and 3.7% 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)

HIV/AIDS Beliefs and Opinions

An estimated 650,000 – 900,000 people in the United States are presently infected with HIV (human immunodeficiency virus), with approximately 40,000 additional people newly infected each year. HIV infection and AIDS (Acquired Immunodeficiency Syndrome) will make increasing demands on our health and social service systems for many decades to come.

Through June 30, 1997, 394 Alaskans have been confirmed to have AIDS. Of these, 197 are known to have died. Data from HIV antibody testing conducted by the State Section of Laboratories through June 30, 1997, show that 653 (0.6%) of 105,268 individuals voluntarily tested are infected with HIV. Of the 15,523 civilian applicants for military service who have been screened for HIV infection in Alaska from October 1985 through December 1996, 3 (0.02%) are infected.

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 for exposure. When people recognize their risks, they can learn ways to change their behaviors to reduce their risk of becoming infected. Individuals at high risk should seek HIV counseling and testing. Infected individuals may seek medical care to preserve their health, and may alter those behaviors likely to transmit HIV infection to others.

Behavioral Risk Factor Survey

In 1996, only survey respondents aged 18-64 were asked the HIV and AIDS questions (1,403 respondents).

Half (49.5%) of Alaskan adults believed that a condom is somewhat effective in preventing getting infected with HIV through sexual activity and 34.8% thought that it is very effective. Most (86.7%) adults said that if they had a sexually active teenager, they would encourage him or her to use a condom.

Many (59.0%) Alaskan adults believed their chance of getting infected with HIV were none, 33.8% thought their chances were low, 3.2% thought their chances were medium and 1.9% thought their chances were high. Among Alaskan adults 10.1% reported having changed their sexual behavior in the last 12 months, due to their knowledge of HIV. Of those who changed their sexual behavior, 71% reported having sexual intercourse with only one partner, 62% reported using condoms for protection, and 89% reported being more careful in selecting sexual partners.

Among Alaskan adults, 46.5% had been tested for HIV. The most common reasons for being tested were to see if infected, due to pregnancy, as part of a routine check up and for military service. The most common places of HIV testing were private doctor, military site and hospital or emergency room.

Among Alaska adults, 43.0% reported that if they had a child in school, AIDS education should begin in school between fourth and the sixth grade.

Alaskan Beliefs and Opinions About AIDS ◆

What are your chances of getting the AIDS virus?

High	1.9%
Medium	3.2%
Low	33.8%
None	59.0%
Unknown/Refused	2.2%

Have you ever had your blood tested for the AIDS virus infection?

Yes	46.5%
No	49.6%
Unknown/Refused	3.9%

What was the main reason you had your last AIDS blood test?
(of 638 respondents tested)

To see if infected	23.2%
Pregnancy test	16.9%
Routine checkup	15.8%
Military	11.5%
Life Insurance	7.8%
Blood donation process	4.8%
Employment	4.6%
Illness	2.1%
Hospitalization	2.0%
Referred by Doctor	1.9%
Marriage license	1.6%
Occupational exposure	1.2%
Immigration	1.1%
Health Insurance	0.2%
Referred by sex partner	0.1%
Other	4.5%
Unknown/Refused	0.8%

Where did you have your last blood test for the AIDS virus?
(of 637 respondents tested)

Private doctor	25.7%
Military site	20.6%
Hospital or emergency room	14.1%
Health Department or public clinic	9.9%
Community health clinic	5.9%
Family planning or prenatal clinic	3.6%
AIDS or STD clinic (test site)	3.3%
Insurance company clinic	1.6%
At home/health worker	1.3%
Company clinic/Industry	0.8%
In jail or prison	0.6%
Blood bank	0.4%
Other	6.6%
Unknown/ Refused	5.7%

When was your last test?
(of 637 respondents tested)

1980 - 1984	0.1%
1985 - 1988	4.3%
1989 - 1992	15.3%
1993 - 1996	76.3%
Unknown/Refused	3.9%

Did you receive the results of your last HIV test?
(of 638 respondents tested)

Yes	82.1%
No	11.7%
Unknown/Refused	6.2%

Did you receive counseling after getting the results of your last test?
(of 524 respondents who were tested and received their results)

Yes	24.8%
No	74.9%
Unknown/Refused	0.3%

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

Kindergarten	7.6%
1st - 3rd grade	21.4%
4th - 6th grade	43.0%
7th - 9th grade	13.8%
10th - 12th grade	1.4%
Never	1.6%
Don't know or refused	11.2%

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

Yes	86.7%
No	2.2%
Would give other advice	5.9%
Unknown/Refused	5.3%

How effective do you think using a condom is in preventing getting the AIDS virus through sexual activity?

Very effective	34.8%
Somewhat effective	49.5%
Not at all effective	5.6%
Did not know how effective	7.4%
Did not know method	0.2%
Unknown/Refused	2.5%

Due to what you know about HIV, have you changed your sexual behavior in the last 12 months?

Yes	10.1%
No	86.0%
Unknown refused	3.9%

Firearm Safety

Overview

In 1996, injuries were the third leading cause of death in Alaska and the number one cause of years of life lost for persons under the age of 65.

From 1994 - 1996, 26.6% of all injury deaths in Alaska were firearm related, and 23.5% of all injury deaths among youth (under the age of 18) were firearm related.

Factors involved in many firearm related deaths are carelessness in handling, lack of safe storage, and lack of knowledge about its operation.

Behavioral Risk Factor Survey

Among Alaskan adults, 59.9% reported having a firearm in their home, garage, or outdoor storage area, or in their car, truck, or motor vehicle. Forty percent (40%) of Alaskan adults reported that they have handguns, such as pistols or revolvers and 53.9% reported they have long guns such as rifles or shotguns.

Of 984 respondents with a firearm in or around the household, 66% reported that the firearm(s) belonged to themselves personally.

The main reason there was a firearm in around the household (of 984 respondents) was: hunting or sport 72.1%; protection 14.3%; work 1.2%; some other reason 10.4%; unknown/ refused 2.0%.

Among Alaskan adults, 11.5% reported having a firearm in or around their home that was both loaded and unlocked.

About 2% of Alaskan adults reported carrying a loaded firearm outside of the home for protection against people during the last 30 days.

Less than 1% (0.4%) reported confronting another person with a firearm (even if it was not fired) in the past year, to protect themselves, their property or some else.

Among Alaskan adults, 9.7% reported that in the past 30 days, they had driven or been a passenger in a motor vehicle in which they knew there was a loaded firearm.

Of 984 respondents with a firearm in or around the household, 16% had attended a firearm safety workshop, class or clinic in the past three years.

Risks by Region

This section provides summary tables of the prevalence of behavioral health risks for each of the four BRFSS regions in Alaska (see Appendix B). This section also provides a comparison of risk factors by region.

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 384) 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 11 – 21

n = Number of respondents at risk.

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

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

95% C.I. = 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.

1996 BRFSS Sampling Regions

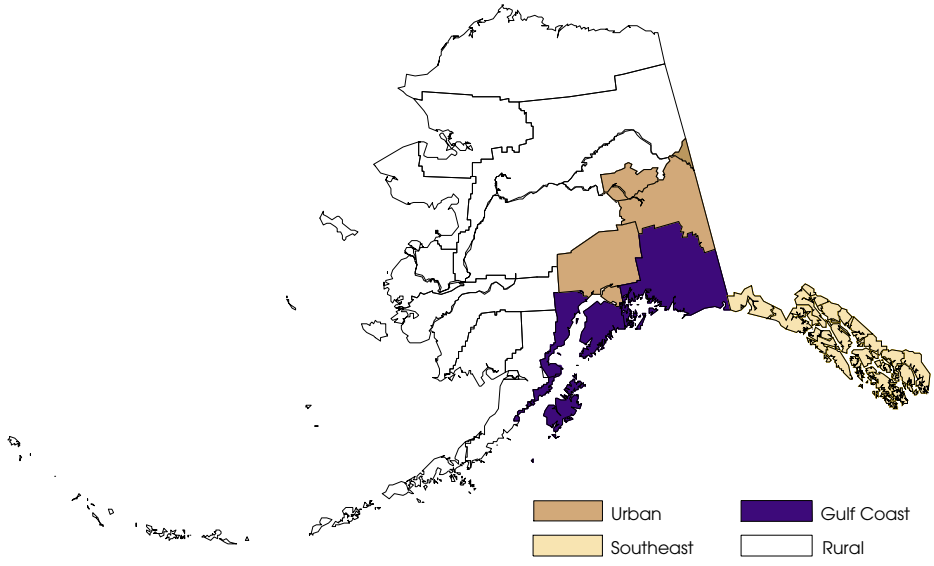


Table 11

Regional Summary
Prevalence of Select Risk Factors
Urban (Region 1)

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	48	26	177	19.1 - 33.4
Female	21	10	207	5.5 - 14.3
Total	69	18	384	14.0 - 22.7
Chronic Drinking				
Male	12	6	177	2.5 - 9.5
Female	1	<1	207	0.0 - 0.7
Total	13	3	384	1.4 - 5.0
Overweight				
Male	50	29	177	21.9 - 36.9
Female	58	28	207	21.5 - 34.8
Total	108	29	384	23.7 - 33.8
Fruits and Vegetables (5 or more per day)				
Male	45	26	177	18.3 - 32.7
Female	62	32	207	25.3 - 39.3
Total	107	29	384	23.7 - 33.8
Physically Inactive				
Male	27	18	177	11.6 - 24.5
Female	69	33	207	26.3 - 40.3
Total	96	25	384	20.6 - 30.2
Current Smoking				
Male	51	30	177	22.6 - 37.7
Female	48	21	207	15.5 - 27.1
Total	99	26	384	21.0 - 30.7
No Health Care Plan				
Male	33	17	177	11.1 - 23.5
Female	23	10	207	5.6 - 13.9
Total	56	14	384	9.9 - 17.5

Table 12

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

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	41	24	176	17.1 - 31.0
Female	20	9	208	4.7 - 12.3
Total	61	17	384	12.6 - 21.1
Chronic Drinking				
Male	12	7	176	2.9 - 11.5
Female	0	0	208	0.0 - 0.0
Total	12	4	384	1.5 - 6.2
Overweight				
Male	54	31	176	23.3 - 38.1
Female	56	24	208	18.3 - 30.4
Total	110	28	384	22.9 - 32.7
Fruits and Vegetables (5 or more per day)				
Male	31	20	176	13.0 - 26.5
Female	55	27	208	20.2 - 33.4
Total	86	23	384	18.3 - 27.8
Physically Inactive				
Male	37	20	176	13.9 - 27.0
Female	57	26	208	19.6 - 32.3
Total	94	23	384	18.4 - 27.6
Current Smoking				
Male	48	27	176	19.7 - 33.8
Female	62	29	208	22.4 - 35.6
Total	110	28	384	22.9 - 32.7
No Health Care Plan				
Male	31	18	176	11.7 - 24.3
Female	39	19	208	13.6 - 25.3
Total	70	19	384	14.4 - 23.0

Table 13

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

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	53	33	174	24.2 - 40.7
Female	15	8	210	3.7 - 11.8
Total	68	21	384	15.7 - 25.7
Chronic Drinking				
Male	18	10	174	5.3 - 14.6
Female	1	1	210	0.0 - 1.7
Total	19	6	384	3.0 - 8.0
Overweight				
Male	56	34	174	25.7 - 42.2
Female	61	30	210	23.4 - 37.2
Total	117	32	384	26.8 - 37.7
Fruits and Vegetables (5 or more per day)				
Male	28	15	174	9.5 - 21.2
Female	61	29	210	22.4 - 35.7
Total	89	22	384	17.4 - 26.4
Physically Inactive				
Male	33	20	174	12.7 - 27.1
Female	44	21	210	14.9 - 27.1
Total	77	20	384	15.7 - 25.2
Current Smoking				
Male	51	29	174	21.5 - 37.3
Female	59	28	210	20.9 - 34.0
Total	110	29	384	23.3 - 33.7
No Health Care Plan				
Male	23	15	174	8.7- 21.2
Female	21	9	210	5.4 - 13.6
Total	44	12	384	8.5 - 16.2

Table 14

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

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	51	28	188	19.7 - 35.4
Female	24	15	196	9.0 - 21.4
Total	75	22	384	17.0 - 27.4
Chronic Drinking				
Male	13	5	188	1.9 - 8.3
Female	3	2	196	0.0 - 4.8
Total	16	4	384	1.7 - 6.0
Overweight				
Male	62	29	188	21.5 - 35.9
Female	71	36	196	27.9 - 43.2
Total	133	32	384	26.4 - 37.0
Fruits and Vegetables (5 or more per day)				
Male	28	16	188	10.0 - 22.7
Female	36	20	196	13.1 - 26.4
Total	64	18	384	13.2 - 22.4
Physically Inactive				
Male	63	32	188	24.2 - 39.9
Female	70	35	196	27.8 - 43.1
Total	133	34	384	28.0 - 39.1
Current Smoking				
Male	70	40	188	31.1 - 48.0
Female	64	34	196	26.7 - 42.0
Total	134	37	384	31.5 - 43.2
No Health Care Plan				
Male	24	14	188	8.0 - 20.9
Female	27	14	196	8.3 - 19.7
Total	51	14	384	9.9 - 18.7

Table 15

Acute (Binge) Drinking by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	48	26	177	19.1 - 33.4
Female	21	10	207	5.5 - 14.3
Total	69	18	384	14.0 - 22.7
Gulf Coast (Region 2)				
Male	41	24	176	17.1 - 31.0
Female	20	9	208	4.7 - 12.3
Total	61	17	384	12.6 - 21.1
Southeast (Region 3)				
Male	53	33	174	24.2 - 40.7
Female	15	8	210	3.7 - 11.8
Total	68	21	384	15.7 - 25.7
Rural (Region 4)				
Male	51	28	188	19.7 - 35.4
Female	24	15	196	9.0 - 21.4
Total	75	22	384	17.0 - 27.4

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

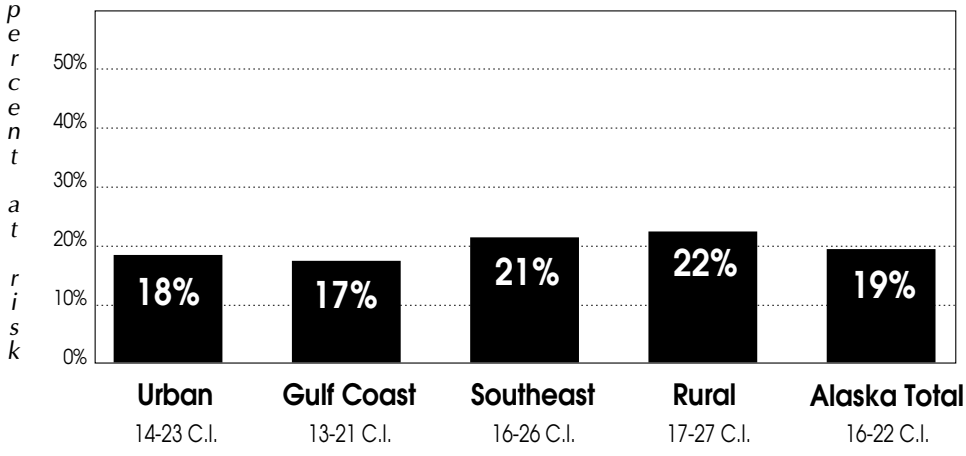


Table 16

Chronic Drinking by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	12	6	177	2.5 - 9.5
Female	1	<1	207	0.0 - 0.7
Total	13	3	384	1.4 - 5.0
Gulf Coast (Region 2)				
Male	12	7	176	2.9 - 11.5
Female	0	0	208	0.0 - 0.0
Total	12	4	384	1.5 - 6.2
Southeast (Region 3)				
Male	18	10	174	5.3 - 14.6
Female	1	1	210	0.0 - 1.7
Total	19	6	384	3.0 - 8.0
Rural (Region 4)				
Male	13	5	188	1.9 - 8.3
Female	3	2	196	0.0 - 4.8
Total	16	4	384	1.7 – 6.0

Comparison of Risk Prevalence for Chronic Drinking

by Region

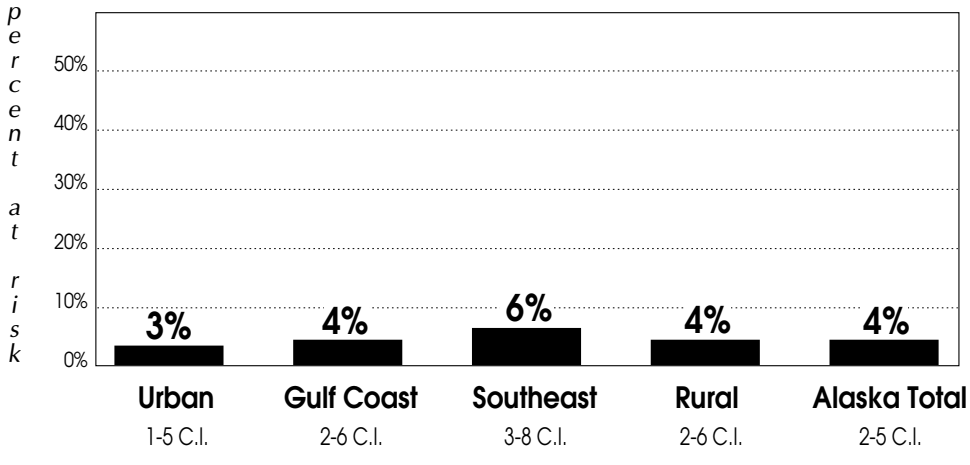


Table 17

Overweight by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	50	29	177	21.9 - 36.9
Female	58	28	207	21.5 - 34.8
Total	108	29	384	23.7 - 33.8
Gulf Coast (Region 2)				
Male	54	31	176	23.3 - 38.1
Female	56	24	208	18.3 - 30.4
Total	110	28	384	22.9 - 32.7
Southeast (Region 3)				
Male	56	34	174	25.7 - 42.2
Female	61	30	210	23.4 - 37.2
Total	117	32	384	26.8 - 37.7
Rural (Region 4)				
Male	62	29	188	21.5 - 35.9
Female	71	36	196	27.9 - 43.2
Total	133	32	384	26.4 - 37.0

Comparison of Risk Prevalence for Overweight

by Region

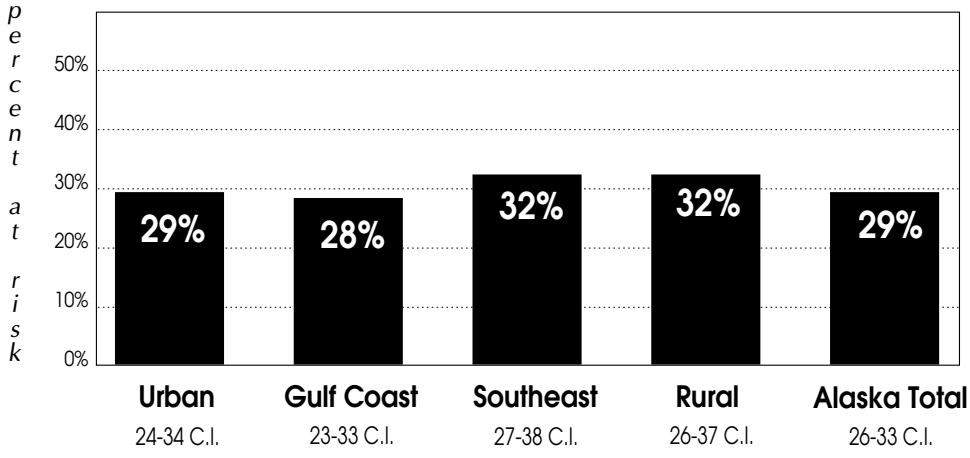


Table 18

Fruits and Vegetables by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	45	26	177	18.3 - 32.7
Female	62	32	207	25.3 - 39.3
Total	107	29	384	23.7 - 33.8
Gulf Coast (Region 2)				
Male	31	20	176	13.0 - 26.5
Female	55	27	208	20.2 - 33.4
Total	86	23	384	18.3 - 27.8
Southeast (Region 3)				
Male	28	15	174	9.5 - 21.2
Female	61	29	210	22.4 - 35.7
Total	89	22	384	17.4 - 26.4
Rural (Region 4)				
Male	28	16	188	10.0 - 22.7
Female	36	20	196	13.1 - 26.4
Total	64	18	384	13.2 - 22.4

Comparison of Risk Prevalence for Fruit & Vegetable Consumption by Region

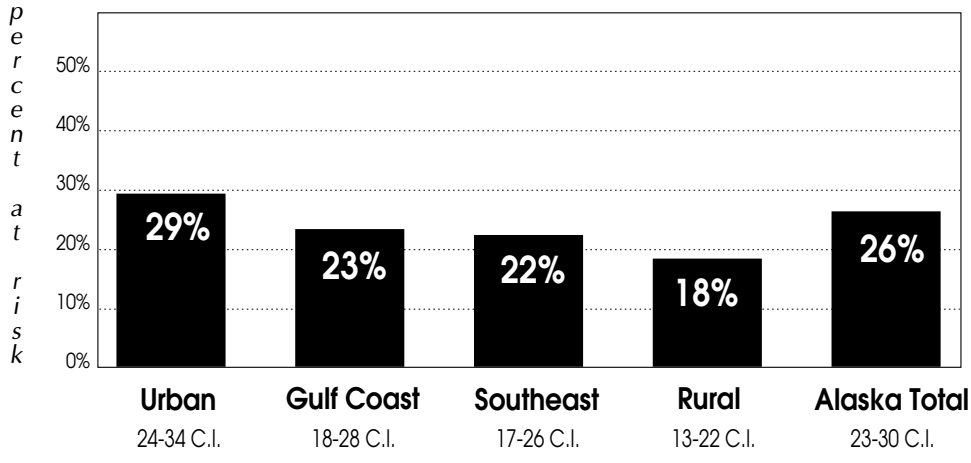


Table 19

Physically Inactive

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	27	18	177	11.6 - 24.5
Female	69	33	207	26.3 - 40.3
Total	96	25	384	20.6 - 30.2
Gulf Coast (Region 2)				
Male	37	20	176	13.9 - 27.0
Female	57	26	208	19.6 - 32.3
Total	94	23	384	18.4 - 27.6
Southeast (Region 3)				
Male	33	20	174	12.7 - 27.1
Female	44	21	210	14.9 - 27.1
Total	77	20	384	15.7 - 25.2
Rural (Region 4)				
Male	63	32	188	24.2 - 39.9
Female	70	35	196	27.8 - 43.1
Total	133	34	384	28.0 - 39.1

Comparison of Risk Prevalence for Physically Inactive
by Region

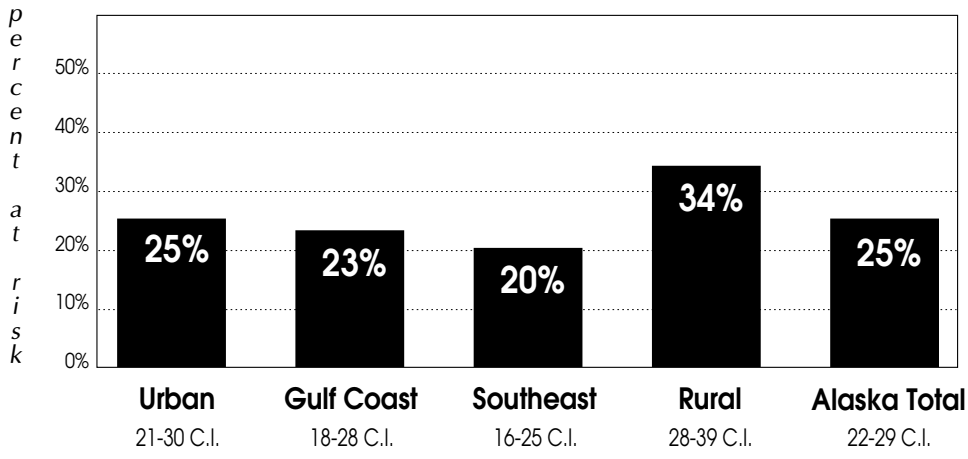


Table 20

Current Smoking by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	51	30	177	22.6 - 37.7
Female	48	21	207	15.5 - 27.1
Total	99	26	384	21.0 - 30.7
Gulf Coast (Region 2)				
Male	48	27	176	19.7 - 33.8
Female	62	29	208	22.4 - 35.6
Total	110	28	384	22.9 - 32.7
Southeast (Region 3)				
Male	51	29	174	21.5 - 37.3
Female	59	28	210	20.9 - 34.0
Total	110	29	384	23.3 - 33.7
Rural (Region 4)				
Male	70	40	188	31.1 - 48.0
Female	64	34	196	26.7 - 42.0
Total	134	37	384	31.5 - 43.2

Comparison of Risk Prevalence for Current Smoking

by Region

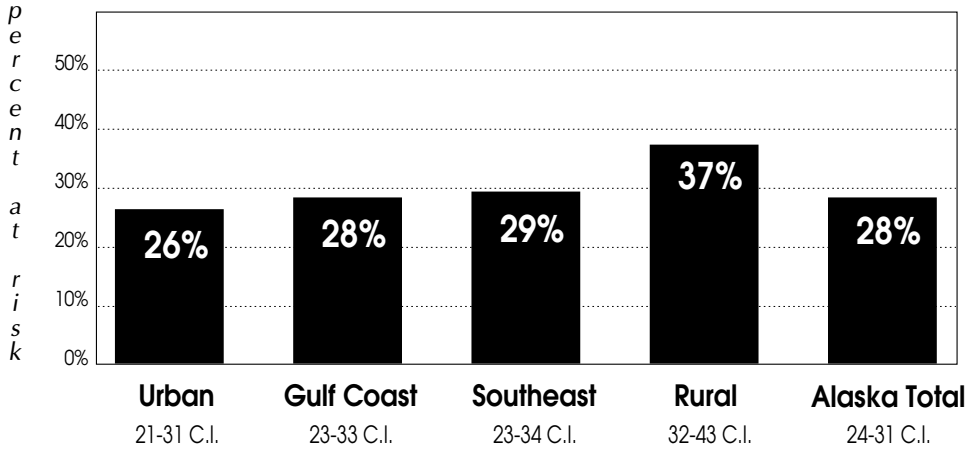


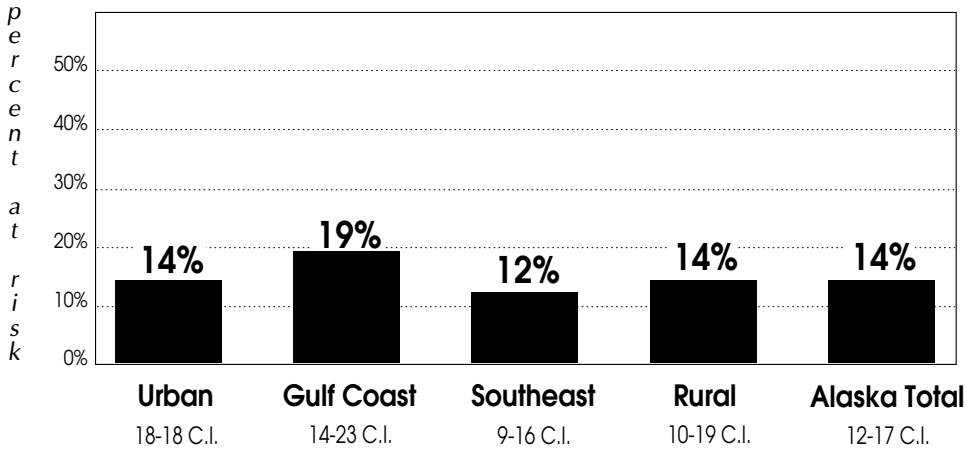
Table 21

No Health Care Plan by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	33	17	177	11.1 - 23.5
Female	23	10	207	5.6 - 13.9
Total	56	14	384	9.9 - 17.5
Gulf Coast (Region 2)				
Male	31	18	176	11.7 - 24.3
Female	39	19	208	13.6 - 25.3
Total	70	19	384	14.4 - 23.0
Southeast (Region 3)				
Male	23	15	174	8.7 – 21.2
Female	21	9	210	5.4 - 13.6
Total	44	12	384	8.5 - 16.2
Rural (Region 4)				
Male	24	14	188	8.0 - 20.9
Female	27	14	196	8.3 - 19.7
Total	51	14	384	9.9 - 18.7

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.

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.

Mammogram Females 40 and older who report they ever had a mammogram.

Mammogram (2) Females 50 and older who report they have had a mammogram within the past two years.

Mammogram and Clinical Breast Exam Females 40 and older who report that they have ever had a mammogram and a breast exam.

Mammogram and Clinical Breast Exam (2) Females 50 and older who report they have had a mammogram and a breast exam in the past two years.

Overweight 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.

Pap Test Females with intact cervix-uteri who report they have ever had a pap smear test.

Physical Activity

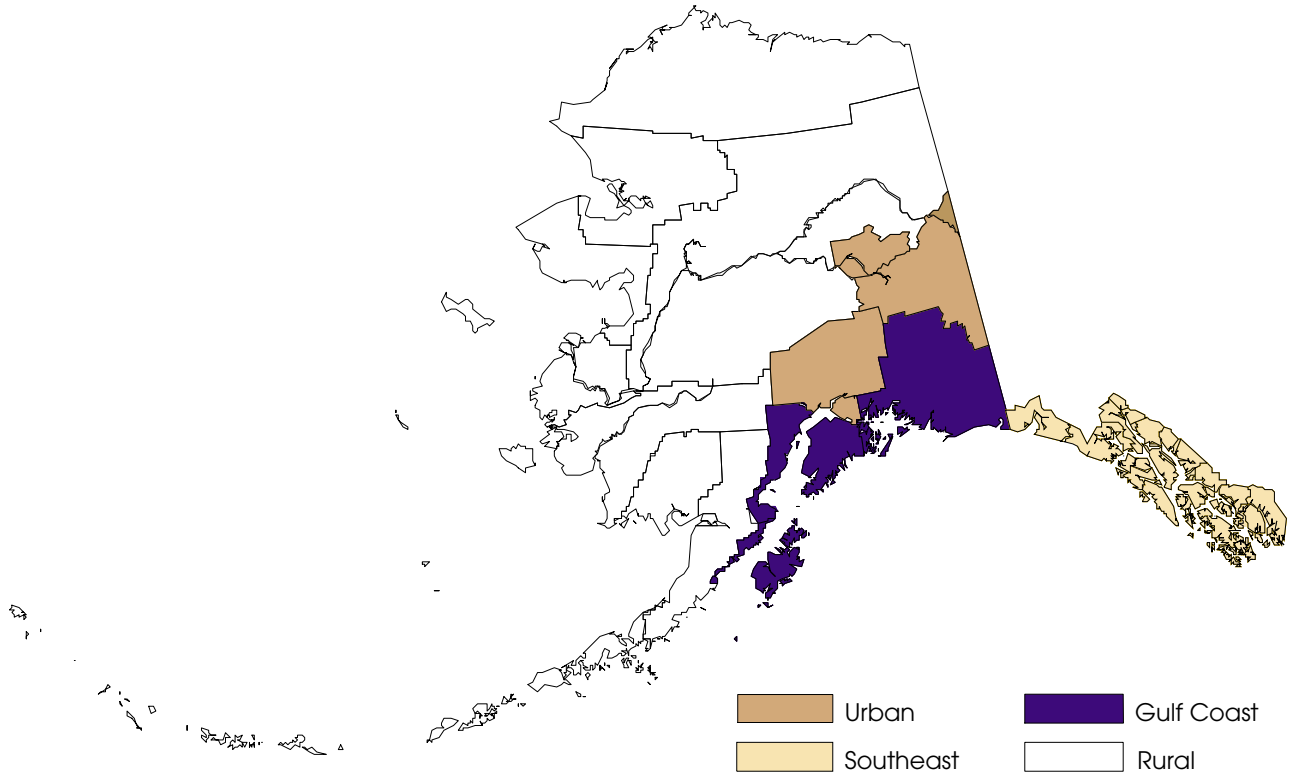
Physically Inactive Respondents who report no leisure time physical activity during the past month.

Regular and Sustained Physical Activity Respondents who report physical activity 5 or more sessions per week, 30 or more minutes per session, regardless of intensity.

Regular and Vigorous Physical Activity Respondents who report physical activity or pair of activities for 3 or more sessions per week, 20 minutes or more per session, at 50% or more capacity.

Sedentary Lifestyle Respondents who report no activity or a physical activity or pair of activities that were done for 20 minutes or less, fewer than three times per week.

Appendix B: 1996 BRFSS Sampling Regions



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

	Population 18 years and older ◆	Number of interviews conducted
Urban (Region 1) Anchorage, Fairbanks & vicinity	287,341	384
Gulf Coast (Region 2) Kenai, Kodiak, Valdez, Cordova & vicinity	50,231	384
Southeast (Region 3) All of Southeast Alaska	51,811	384
Rural (Region 4) All other nonurban areas of Alaska	45,057	384
STATEWIDE TOTAL	**434,440**	**1,536**

◆ Claritas. 1996 Race by Age by Sex Report for All Counties Nationwide. Ithaca, New York.

Appendix C: Alaska BRFSS Sample Design ◆

	18 years and older
Urban (Region 1)	
Anchorage Borough	188,002
Fairbanks-Northstar	61,115
Matanuska-Susitna	34,377
Southeast Fairbanks	3,847
TOTAL	287,341
Gulf Coast (Region 2)	
Kenai Peninsula	31,969
Kodiak Island	10,823
Valdez Cordova	7,439
TOTAL	**50,231**
Southeast (Region 3)	
Haines Borough	1,599
Juneau Borough	20,798
Ketchikan Gateway	10,267
Prince of Wales	4,913
Sitka	6,138
Skagway, Angoon	3,102
Wrangell, Petersburg	4,994
TOTAL	**51,811**
Rural (Region 4)	
Aleutians East	1,656
Aleutian Islands	5,625
Bethel Census	9,614
Bristol Bay Borough	1,050
Dillingham	2,824
Lake and Peninsula Borough	1,114
Nome	5,659
North Slope Borough	4,469
Northwest Arctic	3,910
Wade Hampton	3,774
Yukon-Koyukuk	5,362
TOTAL	**45,057**
STATEWIDE TOTAL	**434,440**

◆ Claritas. 1996 Race by Age by Sex Report for All Counties Nationwide. Ithaca, New York

Appendix D: Alaska BRFSS Region Description◆

Age	Total Population	Male	Female
Urban (Region 1)			
18-24	36,784	20,474	16,310
25-34	73,958	37,815	36,143
35-44	79,216	41,237	37,979
45-54	50,457	25,800	24,657
55-64	29,509	16,877	12,632
65+	17,417	6,402	11,015
TOTAL	**287,341**	**148,605**	**138,736**
Gulf Coast (Region 2)			
18-24	5,537	3,085	2,452
25-34	11,388	6,123	5,265
35-44	14,781	8,050	6,731
45-54	9,306	4,911	4,395
55-64	4,861	2,643	2,218
65+	4,358	2,197	2,161
TOTAL	**50,231**	**27,009**	**23,222**
Southeast (Region 3)			
18-24	4,060	2,978	1,082
25-34	13,151	6,139	7,012
35-44	14,685	7,738	6,947
45-54	9,751	5,221	4,530
55-64	5,104	2,688	2,416
65+	5,060	2,377	2,683
TOTAL	**51,811**	**27,141**	**24,670**
Rural (Region 4)			
18-24	5,946	2,943	3,003
25-34	14,121	8,739	5,382
35-44	9,648	5,532	4,116
45-54	7,812	4,279	3,533
55-64	3,799	1,693	2,106
65+	3,602	2,211	1,391
TOTAL	**45,057**	**25,526**	**19,531**

◆ Claritas. 1996 Race by Age by Sex Report for All Counties Nationwide. Ithaca, New York

Appendix E: Alaska BRFSS 1996 Survey Population

by Age and Gender

Age	Male	Female	Total
Urban (Region1)			
18-24	16	22	38
25-34	56	46	102
35-44	45	64	109
45-54	37	41	78
55-64	16	17	33
65+	7	15	22
Unknown	0	2	2
TOTAL	**177**	**207**	**384**
Gulf Coast (Region 2)			
18-24	15	16	31
25-34	39	40	79
35-44	44	62	106
45-54	49	49	98
55-64	18	18	36
65+	10	22	22
Unknown	1	1	2
TOTAL	**176**	**208**	**384**
Southeast (Region 3)			
18-24	13	7	20
25-34	33	49	82
35-44	42	67	109
45-54	53	41	94
55-64	15	19	34
65+	15	26	41
Unknown	3	1	4
TOTAL	**174**	**210**	**384**
Rural (Region 4)			
18-24	12	17	29
25-34	43	41	84
35-44	53	54	107
45-54	42	46	88
55-64	15	21	36
65+	21	17	38
Unknown	2	0	2
TOTAL	**188**	**196**	**384**

Appendix F: Alaska BRFSS 1996 Survey Population

by Age and Race

Age	Non-Native	Native	Unknown	Total
Urban (Region 1)				
18-24	35	3	0	38
25-34	99	3	0	102
35-44	104	5	0	109
45-54	73	4	1	78
55-64	31	2	0	33
65+	21	1	0	22
Unknown	2	0	0	2
TOTAL	**368**	**18**	**1**	**384**
Gulf Coast (Region 2)				
18-24	27	4	0	31
25-34	71	8	0	79
35-44	94	11	1	106
45-54	91	7	0	98
55-64	31	5	0	36
65+	31	1	0	32
Unknown	2	0	0	2
TOTAL	**347**	**36**	**1**	**384**
Southeast (Region 3)				
18-24	16	4	0	20
25-34	72	10	0	82
35-44	95	12	2	109
45-54	83	10	1	94
55-64	27	7	0	34
65+	36	4	1	41
Unknown	2	1	1	4
TOTAL	**331**	**48**	**5**	**384**
Rural (Region 4)				
18-24	4	25	0	29
25-34	37	47	0	84
35-44	56	51	0	107
45-54	40	45	3	88
55-64	12	24	0	36
65+	14	24	0	38
Unknown	0	1	1	2
TOTAL	**163**	**217**	**4**	**384**

Appendix G: Telephone Coverage in Alaska◆

	Occupied Housing	Number with Phones	Percent Total
Urban (Region 1)			
Anchorage Borough	82,702	79,890	96.59
Fairbanks-Northstar	26,693	24,960	93.50
Matanuska-Susitna	13,394	12,357	92.25
Southeast Fairbanks	1,909	1,521	79.67
TOTAL	**124,698**	**118,728**	**95.21**
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**
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

The statewide sample was stratified into four regions for the study. Within each region's sample, the proportion of interviews in each prefix is the same as the proportion of active residential lines in that prefix relative to all the active residential lines in the region.

The Institute of Social and Economic Research, University of Alaska Anchorage (ISER) generates the statewide random telephone number sample using two different techniques:

- for large telephone exchanges and
- for small telephone exchanges.

For large exchanges (more than 2,000 residential lines in most cases) a random digit dial sample is generated by random telephone number generation program (RANDY) developed by Jim Kerr for Professor Jack Kruse. For small exchanges, all residential numbers listed in the relevant telephone book are entered and numbers are randomly selected from this pool.

Generated Numbers from RANDY – Large Exchanges

The advantage of randomly generated numbers is that:

- unlisted as well as listed numbers are included in the sample;
- it is relatively inexpensive.

Information is collected from the telephone utilities on the number of active residential lines in each prefix, and this information is used to determine the proportion of each prefix in the total sample.

To improve the "hit rate" (working residential numbers as a proportion of all numbers generated) information is also collected on blocks of numbers assigned to businesses, to pay phones, or not assigned, so as to exclude these numbers. In recent years, advances in telephone switching equipment have meant that more and more telephone companies assign all their numbers at random, so there is less and less information available on numbers to exclude.

The data collected is read into the program, which calculates the proportion of working residential lines in each prefix to working residential lines in the region. Each proportion is expressed as a decimal between 0 and 1.

RANDY then begins the iterative process of generating the sample. Each iteration involves the following steps:

- A prefix is selected at random;
- RANDY selects a random number between 0 and 1, and compares it to the proportion calculated above for the selected prefix;
- If the random number is less than or equal to the prefix's proportion, the prefix is selected;

- If the random number is greater than the prefix's proportion, the prefix is dropped and the iteration starts over;
- Once a prefix is selected, RANDY generates random 4-digit suffixes, filtering out those that are known not to work, until it has generated 96 suffixes;
- The process is repeated until the desired sample is generated.

After RANDY has generated all the needed numbers, it uses a heap sort algorithm to index all the 7-digit telephone numbers, compare the numbers to each other and the second and subsequent occurrences of any repeating numbers. These deleted numbers are not replaced.

RANDY finally truncates each list of <prefix plus 96 or fewer suffixes> to <prefix plus exactly 48 suffixes>.

Each line of prefix-plus 48 suffixes represents one interview. Generating 48 non-duplicated suffixes assures that even in the smallest prefixes, the line contains at least one working, residential number with residents willing to be interviewed.

Randomly Selected Numbers from Entered Sample - Small Exchanges

Entered numbers are used for Alaska's smaller exchanges because the small number of active residential lines in many prefixes would drives the hit rate of a random digit dial sample below a practical level. In many prefixes, there are fewer than 100 residential phones, sometimes fewer than ten. Since for every telephone prefix there are 10,000 possible phone numbers, unless large blocks of numbers can be excluded, random digit dial would produce only one in 100 (or even one in 1,000) working numbers. Interviewers would spend all their time dialing non-working numbers rather than interviewing.

In this sample, 2,000 active residential lines is the cutoff point for using random number generation, For smaller exchanges, (identified using utility data), all residential numbers listed in the most recent available telephone books and CD ROM telephone number databases are entered as a list.

For each region, then, the lists from each prefix are combined to form a file of all the listed residential telephone numbers in that region. Numbers are chosen randomly the file randomly and printed out in a list that is slightly larger than the desired sample size. Enough extra numbers are included in the list to provide replacements for households that refuse, have recently moved, disconnected, or are otherwise unavailable to be interviewed.

Because the file contains the entire universe of listed numbers, a sample randomly drawn from it is self-weighting; no adjustment is needed to provide the correct proportion from each prefix.

Appendix I: 1996 BRFSS Response Rates

Indicator	BRFSS Objective	BRFSS Median	Alaska Achieved
CASRO Response Rate	≥ 75	63.2	62.9
Upper Bound Rate	≥ 90	77.9	75.3
Percent Refusals	≤ 10	8.0	8.2

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 as 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.

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 are 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 four 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 1996, survey results were weighted using population estimates obtained from Claritas, 1996 Race by Age by Sex Report for All Counties Nationwide, Ithaca, New York.

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