Health Risks in Alaska Among Adults

1995 Annual Report

Alaska Behavioral Risk Factor Survey

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September 1997

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Funded by:

The Centers for Disease Control and Prevention, Cooperative Agreement No. U58/CCUO10659 and the Preventive Health and Health Services Block Grant, National Center for Chronic Disease Prevention and Health Promotion, Division of Adult and Community Health.

Acknowledgments

The program staff would like to acknowledge the technical support provided by John Middaugh, MD, Chief, Section of Epidemiology, Alaska Division of Public Health; Al Zangri, Chief, Bureau of Vital Statistics, Alaska Division of Public Health; Jack Kruse Ph.D., Director, Institute of Social and Economic Research, University of Alaska Anchorage and Greg Williams Ph.D., State Demographer, Alaska Department of Labor.

The staff also wishes to thank Diane Ingle and Phillip Mitchell, Alaska Division of Public Health; Alexandra Hill of the Institute of Social and Economic Research; Craig Leutzinger, William Garvin and Peter Mariolis from the Centers for Disease Control and Prevention for technical assistance.

Finally, special thanks goes to the people of Alaska who participated in this survey.

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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, not using seat belts 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 1995 survey results. These surveys were conducted from January through December, 1995, for a total sample size of 1,535 interviews. The Division of Public Health, BRFSS continues to conduct monthly telephone surveys each year.

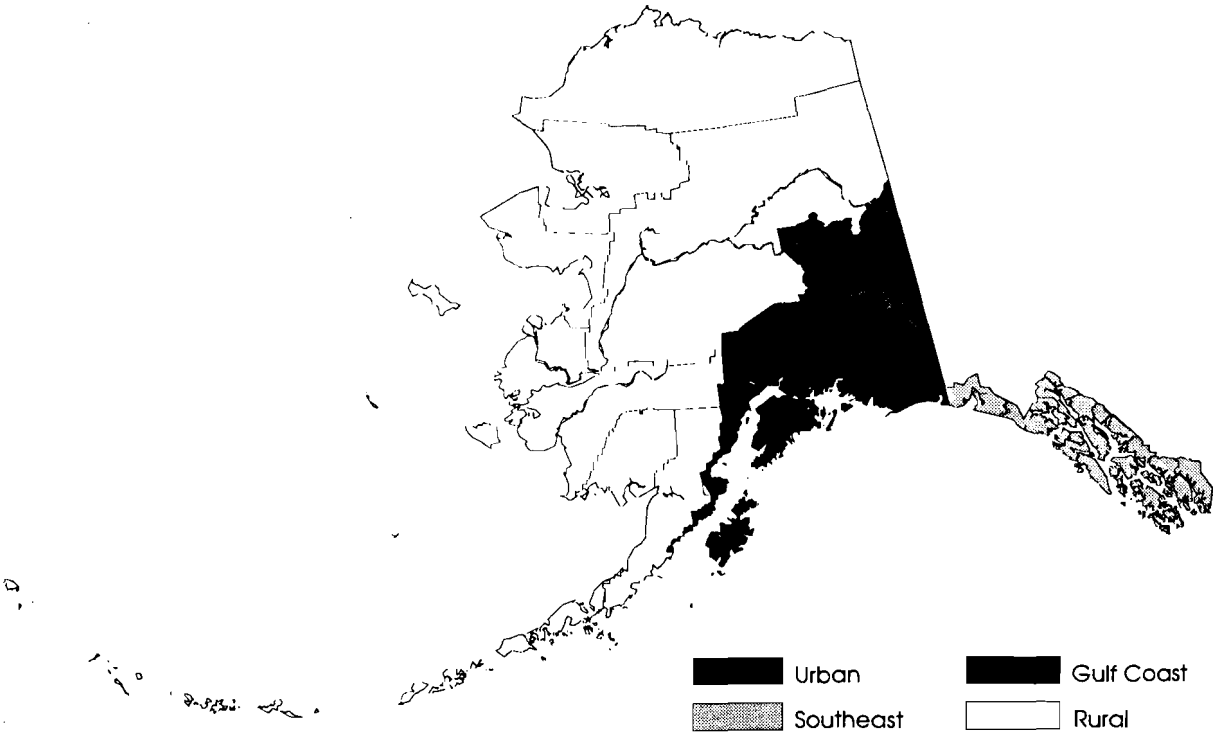
At Risk for Specific Risk Factors, 1995

Behavioral Risk Factor ◆	Proportion of Population at Risk (Prevalence)	Estimated Adults at Risk ◆◆
Safety Belt Non-Use (3)	33.1	135,986
Overweight (2)	31.3	128,591
Cigarette Smoking	25.0	102,709
High Blood Pressure	19.3	79,291
Acute Drinking	19.2	78,880
Smokeless Tobacco	6.7	27,526
Chronic Drinking	2.9	11,914
Drinking and Driving	1.3	5,341

◆ See Appendix A for Behavioral Risk Factor definitions.

◆◆ Based on 1995 intercensal population estimates of 410,834 adults 18 years and older in Alaska (Demo-Detail).

1995 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	268,841	384
Gulf Coast (Region 2) Kenai, Kodiak, Valdez, Cordova & vicinity	48,616	384
Southeast (Region 3) All of Southeast Alaska	51,225	384
Rural (Region 4) All other nonurban areas of Alaska	42,152	384
STATEWIDE TOTAL	**410,834**	**1,536**

◆ Demo-Detail, Estimates of Population Characteristics for Small Areas, County Estimates by Race, Sex, and Single Year of Age: 1990-1995 (July 1).

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, 1995, and are based on a sample size of 1,535 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 1995, 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 1995 questionnaire covered the topics of Health Status, Health Care Access, Health Care Utilization, Hypertension Awareness, Cholesterol Awareness, Diabetes, Tobacco Use (including Smokeless Tobacco), Alcohol Use, Demographics, Women's Health, Colorectal Cancer Screening, Immunizations, Oral Health, Injury Control, and 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 1995, 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 standalone software. Monthly data files were sent to the Centers for Disease Control and Prevention for editing.

Data Analysis

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

Data collected by BRFSS are edited by the CDC by applying a computerized algorithm. Edit reports are sent back to the state and corrections are returned to CDC. 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 1995, survey results were weighted using 1995 intercensal population estimates for Alaska obtained from Demo-Detail. (See Appendix J)

Reporting: Data are 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.

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 1995.

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 1995 population estimates cited in this report.

Table 1

Survey Population by Selected Demographics

Alaska BRFSS 1995

	n	%	Weighted N
Gender			
Male	753	52.8	216,900
Female	782	47.2	193,935
Age			
18-24	121	12.9	53,180
25-34	342	27.2	111,943
35-44	446	28.0	114,890
45-54	320	16.8	68,891
55-64	164	7.8	31,896
65+	131	6.4	26,132
Unknown/Refused	11	1.0	3,903
Education			
Never Attended School	11	0.3	1,175
Elementary	67	2.2	8,846
Some High School	81	4.7	19,429
High School Graduate or GED	496	31.2	128,021
Some College or Technical School	473	34.8	142,895
College Graduate	406	26.9	110,347
Unknown/Refused	1	0.0	121
Income			
<10,000	58	3.1	12,604
10,000-14,999	87	4.7	19,188
15,000-19,999	96	5.2	21,452
20,000-24,999	117	7.1	29,029
25,000-34,999	213	13.1	53,692
35,000-50,000	315	24.6	101,081
50,000-74,999	267	17.0	69,988
>75,000	245	17.2	70,803
Unknown/Refused	137	8.0	32,998

	n	%	Weighted N
Race			
Native	313	13.5	55,548
Non-Native	1,222	46.8	352,767
Unknown/Refused	5	<1	2,519
Marital Status			
Married	901	66.6	273,459
Divorced	213	8.4	34,695
Widowed	86	2.4	9,780
Separated	27	1.2	4,760
Never Married	257	18.1	74,343
Unmarried Couple	48	3.1	12,659
Unknown/Refused	3	0.3	1,139
Employment			
Employed	1084	71.5	293,820
Unemployed	116	6.9	28,397
Homemaker	104	6.6	27,198
Student	39	4.4	18,057
Retired or unable to work	191	10.5	43,235
Unknown	1	0.0	126
TOTAL	**1,535**	**100**	**410,835**

N = Number of survey respondents in this demographic subgroup. Total sample size = 1,535.

% = 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 1995 intercensal population estimates for Alaska (Demo-Detail).

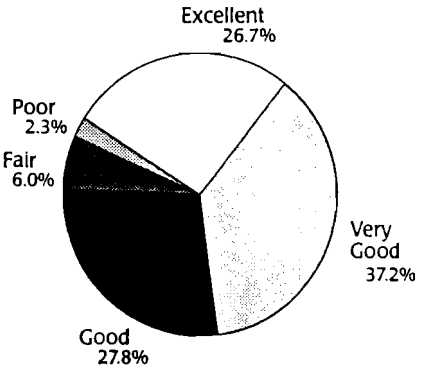
Quality of Life

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 1995, 63.9% of Alaskan adults rated their own health as excellent or good. Only 8.2% of Alaskans rated their health as fair or poor. (National BRFSS Range 8.24 to 22.57%, National BRFSS Median 12.82%). Of those surveyed, 26.7% rated their health excellent, 37.2% as very good, 27.8% as good, 6.0% as fair and 2.3% as poor.

How Alaskans Rate Their Own Health



Recent Physical Health: Alaskan adults reported an average of 2.6 days out of the past 30 days when their physical health was not good (National BRFSS Range 2.11 to 4.03 days, National BRFSS Median 3.05 days). Alaskan males reported an average of 2.1 days during the past month when their physical health was not good. Alaskan females reported an average of 3.1 days during the past month when their physical health was not good.

Recent Mental Health: Alaskan adults reported an average of 2.9 days out of the past 30 days when their mental health was not good (National BRFSS Range 1.81 to 4.63 days, National BRFSS Median 2.94 days). Alaskan males reported an average of 2.2 days during the past month when their mental health was not good. Alaskan females reported an average of 3.6 days during the past month when their mental health was not good.

Recent Activity Limitations: Alaskan adults reported an average of 1.5 days during the past 30 days when their usual activities were limited due to their physical or mental health (National BRFSS Range 1.05 to 2.89 days, National BRFSS Median 1.67days) Alaskan males reported an average of 1.4 days when their activities were limited during the past month and Alaskan females reported an average of 1.6 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:

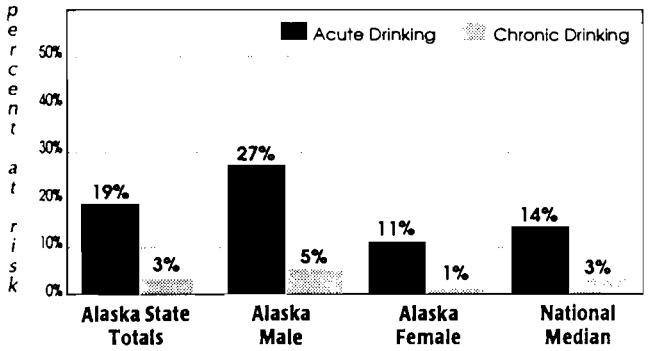
Acute (Binge) Drinking: *Respondents who report having five or more drinks on an occasion, one or more times in the past month.*

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.*

In 1995, 58.8% of those surveyed, reported drinking alcohol in the past month. Among males, 64.5% reported drinking alcohol in the past month, and among females, 52.4% reported drinking alcohol in the past month.

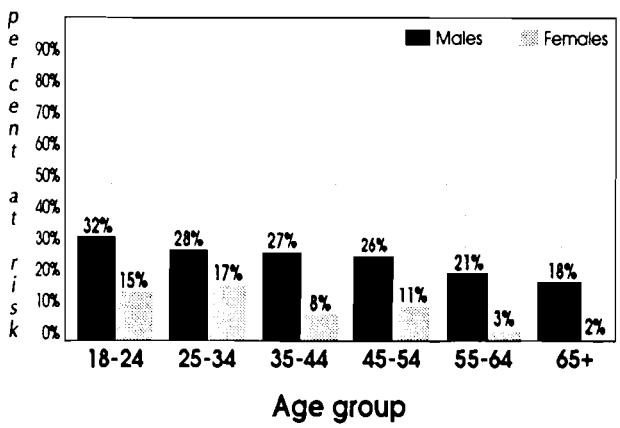
Comparison of Risk Prevalence for Alchohol Use



Acute - National BRFSS Range 5.22 - 22.89%, Median 13.93%
Chronic - National BRFSS Range 1.21 - 5.56%, Median 2.77%

At Risk for Acute Drinking in Alaska

By age and gender



An estimated 19.2% of Alaskan adults engaged in acute (binge) drinking (National BRFSS Range 5.22 to 22.89%, National BRFSS Median 13.93%). Of the males, 26.5% engaged in binge drinking and of the females 11.0% engaged in binge drinking. Men are more likely than women to engage in binge drinking in every age group over 18.

An estimated 2.9% of Alaskan adults were at risk for chronic drinking (National BRFSS Range 1.21 to 5.56%, National BRFSS Median 2.77%). Of males, 4.6% had more than 60 drinks during the past month and of females, 1.1% had more than 60 drinks during the past month.

An estimated 1.3% of Alaskan adults engaged in drinking and driving during the past month. Of men, 1.6% reported drinking and driving during the past month and of women, 0.9% 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 1995 BRFSS.

Table 2

Prevalence of Acute (Binge) Drinking by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	186	26.5	753
95% Confidence Interval (21.6 - 31.4%)			
Female	87	11.0	782
95% Confidence Interval (8.0 - 14.1%)			
Age			
18-24	30	25	121
25-34	83	23	342
35-44	73	18	446
45-54	56	19	320
55-64	17	13	164
65+	12	10	131
Unknown/Refused	2	◆◆	11
Education			
Never Attended School	1	◆◆	11
Elementary	6	7	67
Some High School	12	17	81
High School Graduate or GED	121	24	496
Some College or Technical School	83	20	473
College Graduate	50	14	406
Unknown/Refused	—	—	1
Income			
< $10,000	11	30	58
$10,000-14,999	17	24	87
$15,000-19,999	15	19	96
$20,000-24,999	26	19	117
$25,000-34,999	38	27	213
$35,000-50,000	59	17	315
$50,000-74,999	50	20	267
> $75,000	39	17	245
Unknown/Refused	18	11	137

	n	%	N
Race			
Native	68	24	313
95% Confidence Interval (16.9 - 30.5%)			
Non-Native	202	19	1,222
95% Confidence Interval (15.1 - 21.8%)			
Marital Status			
Married	134	17	901
Divorced	33	15	213
Widowed	10	8	86
Separated	6	◆◆	27
Never Married	77	29	257
Unmarried Couple	13	◆◆	48
Unknown/Refused	—	—	3
Employment			
Employed	209	21	1,084
Unemployed	26	25	116
Homemaker	13	10	104
Student	8	◆◆	39
Retired or unable to work	17	12	191
Unknown	—	—	1
TOTAL	**273**	**19.2**	**1,535**

95% Confidence Interval (16.2 - 22.2%)

◆◆ = 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. Total sample size = 1535.

Table 3

Prevalence of Chronic Drinking by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	44	4.6	753
95% Confidence Interval (2.4 - 6.8%)			
Female	11	1.1	782
95% Confidence Interval (0.3 - 1.9%)			
Age			
18-24	4	2	121
25-34	11	3	342
35-44	16	3	446
45-54	13	4	320
55-64	5	1	164
65+	6	7	131
Unknown/Refused	—	—	11
Education			
Never Attended School	—	—	11
Elementary	—	—	67
Some High School	5	3	81
High School Graduate or GED	28	3	496
Some College or Technical School	13	3	473
College Graduate	9	3	406
Unknown/Refused	—	—	1
Income			
< $10,000	2	1	58
$10,000-14,999	3	6	87
$15,000-19,999	5	2	96
$20,000-24,999	6	5	117
$25,000-34,999	7	5	213
$35,000-50,000	11	2	315
$50,000-74,999	11	4	267
> $75,000	5	2	245
Unknown/Refused	5	2	137

	n	%	N
Race			
Native	12	4	313
95% Confidence Interval (1.3 - 6.8%)			
Non-Native	43	3	1,222
95% Confidence Interval (1.4 - 4.1%)			
Marital Status			
Married	22	3	901
Divorced	13	4	213
Widowed	2	1	86
Separated	3	◆◆	27
Never Married	14	4	257
Unmarried Couple	1	◆◆	48
Unknown/Refused	—	—	3
Employment			
Employed	43	3	1,084
Unemployed	5	6	116
Homemaker	1	1	104
Student	—	—	39
Retired or unable to work	6	6	191
Unknown	—	—	1
TOTAL	**55**	**2.9**	**1,535**

95% Confidence Interval (1.7 - 4.2%)

◆◆ = 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 = 1535.

Table 4

Prevalence of Drinking and Driving by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	20	1.6	753
95% Confidence Interval (0.6 - 2.6%)			
Female	8	0.9	782
95% Confidence Interval (0.0 - 1.7%)			
Age			
18-24	—	—	121
25-34	9	1	342
35-44	12	3	446
45-54	4	1	320
55-64	1	0	164
65+	2	1	131
Unknown/Refused	—	—	11
Education			
Never Attended School	—	—	11
Elementary	—	—	67
Some High School	1	1	81
High School Graduate or GED	15	2	496
Some College or Technical School	6	1	473
College Graduate	6	1	406
Unknown/Refused	—	—	1
Income			
< $10,000	1	1	58
$10,000-14,999	1	1	87
$15,000-19,999	1	1	96
$20,000-24,999	5	2	117
$25,000-34,999	2	1	213
$35,000-50,000	9	2	315
$50,000-74,999	4	2	267
> $75,000	3	0	245
Unknown/Refused	2	1	137

	n	%	N
Race			
Native	9	2	313
95% Confidence Interval (0.7 - 3.9%)			
Non-Native	18	1	1,222
95% Confidence Interval (0.4 - 1.8%)			
Marital Status			
Married	15	1	901
Divorced	5	2	213
Widowed	—	—	86
Separated	1	◆◆	27
Never Married	5	1	257
Unmarried Couple	2	◆◆	48
Unknown/Refused	—	—	3
Employment			
Employed	21	1	1,084
Unemployed	5	5	116
Homemaker	1	1	104
Student	—	—	39
Retired or unable to work	1	0	191
Unknown	—	—	1
TOTAL	**28**	**1.3**	**1,535**

95% Confidence Interval (0.6 - 1.9%)

◆◆ = 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 = 1535.

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 1995, diabetes was the tenth 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, 2.7% reported being told by a doctor that they had diabetes. Among men, 2.0% reported being told that they had diabetes and among women 3.5% reported being told that they had diabetes. Among women, 2.5% reported being told they had diabetes during pregnancy.

Table 5

Prevalence of Diabetes Awareness by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	18	2.0	753
95% Confidence Interval (0.5 - 3.4%)			
Female	25	3.5	782
95% Confidence Interval (1.5 - 5.4%)			
Age			
18-24	1	0	121
25-34	1	0	342
35-44	7	3	446
45-54	10	3	320
55-64	11	6	164
65+	13	14	131
Unknown/Refused	—	—	11
Education			
Never Attended School	—	—	11
Elementary	5	6	67
Some High School	2	1	81
High School Graduate or GED	13	3	496
Some College or Technical School	10	2	473
College Graduate	13	4	406
Unknown/Refused	—	—	1
Income			
< $10,000	2	5	58
$10,000-14,999	7	4	87
$15,000-19,999	1	1	96
$20,000-24,999	3	2	117
$25,000-34,999	9	5	213
$35,000-50,000	6	2	315
$50,000-74,999	6	2	267
> $75,000	3	3	245
Unknown/Refused	6	4	137

	n	%	N
Race			
Native	9	2	313
95% Confidence Interval (0.4 - 3.1%)			
Non-Native	34	3	1,222
95% Confidence Interval (1.5 - 4.2%)			
Marital Status			
Married	24	3	901
Divorced	8	3	213
Widowed	6	12	86
Separated	2	◆◆	27
Never Married	3	1	257
Unmarried Couple	—	—	48
Unknown/Refused	—	—	3
Employment			
Employed	19	2	1,084
Unemployed	2	1	116
Homemaker	3	1	104
Student	—	—	39
Retired or unable to work	19	13	191
Unknown	—	—	1
TOTAL	**43**	**2.7**	**1,535**

95% Confidence Interval (1.5 - 3.9%)

◆◆ = 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 = 1535.

High Blood Pressure

Health Risk

As many as 50 million Americans have elevated blood pressure (systolic blood pressure 140 mm Hg or greater and/or diastolic blood pressure 90 mm Hg or greater) or are taking antihypertensive medication. The prevalence of high blood pressure increases with age, is greater for blacks than for whites, and in both races is greater in less educated than more educated people. Cardiovascular diseases including heart disease and stroke -as well as renal disease, and all-cause mortality, increase progressively with higher levels of systolic and diastolic blood pressure.

Lifestyle factors that contribute to age-related increases in blood pressure include a high sodium intake, excessive consumption of calories, physical inactivity, excessive alcohol consumption and a low intake of potassium. People with a family history of high blood pressure are also at increased risk.

Treatment includes lifestyle modifications (weight reduction, increased physical activity, moderation of dietary sodium and alcohol intake, and tobacco cessation) as well as medication.

Research shows that blood pressure reduction and control significantly reduces stroke mortality and can also help to reduce deaths from heart disease.

High Blood Pressure in Alaska

Definition of High Blood Pressure for this survey: Respondents who report that they have been told they are hypertensive (have high blood pressure).

An estimated 19.3% had ever been told by a doctor or other health professional that their blood pressure was high (National BRFSS Range 18.52 to 29.80%, National BRFSS Median 22.01%). Of Alaskan males, 20.1% reported having been told their blood pressure was high and of females, 18.4%.

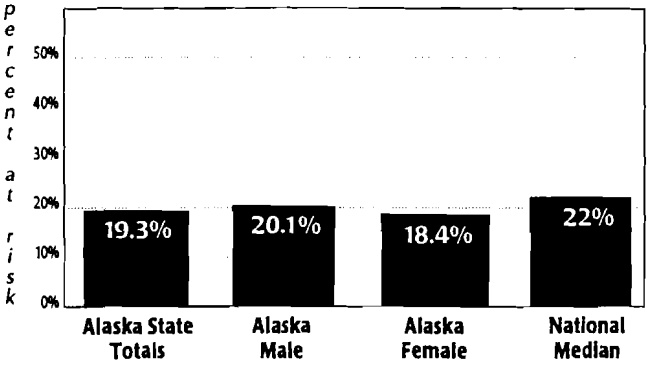
Of the persons who had been told that their blood pressure was high, 22% were told only once and 78% had been told more than once. Most (81.1%) adults had their blood pressure taken by a health professional within the past year.

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, cutting down on salt and exercising.)

Comparison of Risk Prevalence for High Blood Pressure



National BRFSS Range 18.52 - 29.80%, Median 22.01%

Table 6

Prevalence of High Blood Pressure by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	164	20.1	753
95% Confidence Interval (15.7-24.5%)			
Female	159	18.4	782
95% Confidence Interval (14.7-22.2%)			
Age			
18-24	12	8	121
25-34	53	14	342
35-44	65	16	446
45-54	74	25	320
55-64	58	32	164
65+	57	47	131
Unknown/Refused	4	◆◆	11
Education			
Never Attended School	4	◆◆	11
Elementary	20	24	67
Some High School	28	29	81
High School Graduate or GED	103	19	496
Some College or Technical School	106	21	473
College Graduate	62	15	406
Unknown/Refused	—	—	1
Income			
< $10,000	13	25	58
$10,000-14,999	23	26	87
$15,000-19,999	20	24	96
$20,000-24,999	34	26	117
$25,000-34,999	47	21	213
$35,000-50,000	58	15	315
$50,000-74,999	53	22	267
> $75,000	41	13	245
Unknown/Refused	34	21	137

	n	%	N
Race			
Native	76	28	313
95% Confidence Interval (20.4-36.2%)			
Non-Native	245	18	1,222
95% Confidence Interval (14.8-21.0%)			
Marital Status			
Married	196	20	901
Divorced	49	27	213
Widowed	29	40	86
Separated	4	◆◆	27
Never Married	40	13	257
Unmarried Couple	4	◆◆	48
Unknown/Refused	1	◆◆	3
Employment			
Employed	193	16	1,084
Unemployed	25	28	116
Homemaker	23	19	104
Student	6	◆◆	39
Retired or unable to work	76	40	191
Unknown	—	—	1
TOTAL	**323**	**19.3**	**1,535**

95% Confidence Interval (16.4-22.2%)

◆◆ = 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. Total sample size = 1535.

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

Two definitions were used for this survey:

Overweight (1): Respondents at or above 120% of ideal weight. Ideal weight is defined as the mid-value of a medium frame person from the 1959 Metropolitan Life Insurance Tables.

*Overweight (2): 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.*

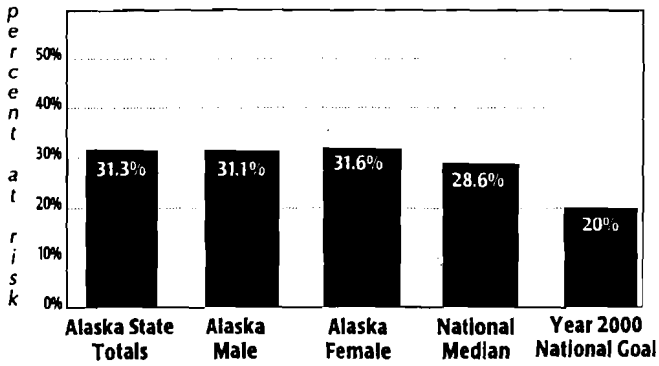
According to definition (1), based on percent of median, 36.9% of Alaskan adults were overweight (National BRFSS Range 25.97 to 38.78%, National BRFSS Median 32.71%). Among men, 37.7% were overweight and among women, 36.0% were overweight.

According to definition (2), based on body mass index, 31.3% of Alaskans were overweight (National BRFSS Range 21.83 to 34.65%, National BRFSS Median 28.65%). Among men, 31.1% were overweight and among women, 31.6% were overweight. This is higher than the Year 2000 goal of 20%.

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)

Comparison of Risk Prevalence for Overweight (2)



National BRFSS Range 21.83 - 34.65%, Median 28.65%

Table 7

Prevalence of Overweight (2) by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	260	31.1	753
95% Confidence Interval (26.1 - 36.1%)			
Female	259	31.6	782
95% Confidence Interval (27.0 - 36.2%)			
Age			
18-24	36	26	121
25-34	86	23	342
35-44	134	33	446
45-54	128	42	320
55-64	74	39	164
65+	59	40	131
Unknown/Refused	2	◆◆	11
Education			
Never Attended School	5	◆◆	11
Elementary	33	46	67
Some High School	34	36	81
High School Graduate or GED	163	32	496
Some College or Technical School	174	33	473
College Graduate	109	27	406
Unknown/Refused	1	◆◆	1
Income			
< $10,000	21	30	58
$10,000-14,999	36	30	87
$15,000-19,999	27	25	96
$20,000-24,999	45	39	117
$25,000-34,999	70	25	213
$35,000-50,000	113	38	315
$50,000-74,999	85	29	267
> $75,000	79	29	245
Unknown/Refused	43	32	137

	n	%	N
Race			
Native	118	39	313
95% Confidence Interval (30.7 - 46.4%)			
Non-Native	400	30	1,222
95% Confidence Interval (26.5 - 34.0%)			
Marital Status			
Married	321	34	901
Divorced	66	36	213
Widowed	35	43	86
Separated	4	◆◆	27
Never Married	80	21	257
Unmarried Couple	12	◆◆	48
Unknown/Refused	1	◆◆	3
Employment			
Employed	353	32	1,084
Unemployed	35	27	116
Homemaker	29	31	104
Student	10	◆◆	39
Retired or unable to work	92	40	191
Unknown	—	—	1
TOTAL	**519**	**31.3**	**1,535**

95% Confidence Interval (27.9 - 34.8%)

◆◆ = 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 = 1535.

Safety Belt Use

Health Risk

Unintentional injuries constitute the fifth leading cause of death in the United States and the third leading cause of death in Alaska. Motor vehicle injuries are the most common cause of unintentional injury death for all ages.

According to the national Fatal Accident Reporting Systems (FARS), the rate of vehicle related deaths per 100,000 is decreasing nationally, however, in Alaska the rate is increasing. Between 1988 and 1993, Alaska had a higher vehicle death rate than the national average per number of miles driven.

Generally, states with mandatory safety belt use laws have significantly lower motor vehicle crash death rates. Alaska is one of the states that has a mandatory safety belt law.

Safety Belt Use In Alaska

Definitions for this survey:

Safety Belt (2): *Respondents reporting that they sometimes, seldom or never wear seat belts.*

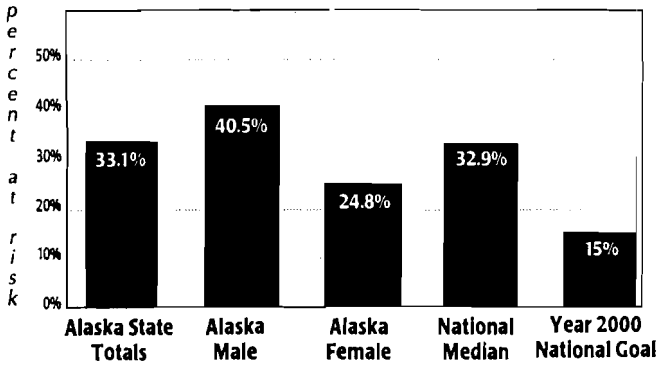
Safety Belt (3): *Respondents reporting that they nearly always, sometimes, seldom or never wear seat belts. (i.e., they do not always wear a safety belt).*

In 1995 in Alaska, 65.2% of adults reported wearing a safety belt always when riding or driving in a car. Among women, 73.6% reported always wearing a safety belt, and 57.7% of the men reported always wearing a safety belt.

According to definition (2), 17.9% of Alaskan adults were at risk for not wearing safety belts always or nearly all of the time (National BRFSS Range 4.45 to 37.80%, National BRFSS Median 17.82%).

According to definition (3), 33.1% of Alaskans were at risk for not wearing a safety belt all of the time (National BRFSS Range 12.63 to 58.31%, National BRFSS Median 32.94%).

Comparison of Risk Prevalence for Safety Belt Non-Use (3)



National BRFSS Range 12.63 - 58.31%, Median 32.94%

Year 2000 National Health Objectives

Increase use of occupant protection systems, such as safety belts, inflatable safety restraints, and child safety seats, to at least 85% of motor vehicle occupants. (Objective 9.12)

Table 8

Prevalence of Safety Belt Non-Use (3) by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	365	40.5	753
95% Confidence Interval (35.2-45.7%)			
Female	256	24.8	782
95% Confidence Interval (20.9-28.7%)			
Age			
18-24	58	36	121
25-34	143	33	342
35-44	167	29	446
45-54	130	31	320
55-64	68	46	164
65+	51	32	131
Unknown/Refused	4	◆◆	11
Education			
Never Attended School	7	◆◆	11
Elementary	24	34	67
Some High School	44	52	81
High School Graduate or GED	234	37	496
Some College or Technical School	184	31	473
College Graduate	127	27	406
Unknown/Refused	1	◆◆	1
Income			
< $10,000	23	37	58
$10,000-14,999	34	31	87
$15,000-19,999	49	44	96
$20,000-24,999	43	35	117
$25,000-34,999	97	41	213
$35,000-50,000	118	32	315
$50,000-74,999	105	28	267
> $75,000	94	27	245
Unknown/Refused	58	38	137

	n	%	N
Race			
Native	163	47	313
95% Confidence Interval (39.6-55.2%)			
Non-Native	456	31	1,222
95% Confidence Interval (27.1-34.5%)			
Marital Status			
Married	345	31	901
Divorced	93	37	213
Widowed	31	32	86
Separated	11	◆◆	27
Never Married	118	37	257
Unmarried Couple	21	◆◆	48
Unknown/Refused	2	◆◆	3
Employment			
Employed	453	34	1,084
Unemployed	52	37	116
Homemaker	29	21	104
Student	17	◆◆	39
Retired or unable to work	70	34	191
Unknown	—	—	1
TOTAL	**621**	**33.1**	**1,535**

95% Confidence Interval (29.7-36.4%)

◆◆ = Not Reported

n = Number of respondents who do not always wear a safety belt.

% = 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 = 1535.

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

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

Among Alaskan adults, 25.0% currently smoked cigarettes (National BRFSS Range 13.16 to 27.83%, National BRFSS Median 22.40%). The prevalence was higher among males (26.5%) than females (23.3%).

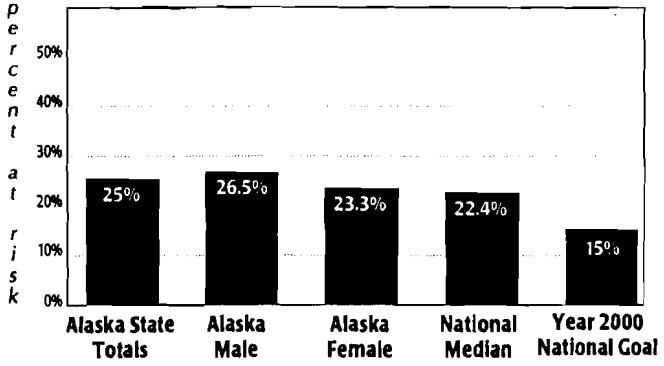
Over half of all the people surveyed (52%) had smoked at least 100 cigarettes in their lifetime. Of all the people who had smoked during their lifetime, approximately half (52%) had quit. Many (61%) former smokers quit smoking more than five years ago. Half (56.1%) of the current smokers had quit smoking 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 13.16 - 27.83%, Median 22.40%

Table 9

Prevalence of Cigarette Smoking by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	219	26.5	753
95% Confidence Interval (21.8-31.2%)			
Female	205	23.3	782
95% Confidence Interval (19.2-27.3%)			
Age			
18-24	40	34	121
25-34	94	22	342
35-44	117	21	446
45-54	94	30	320
55-64	50	35	164
65+	25	14	131
Unknown/Refused	4	◆◆	11
Education			
Never Attended School	3	◆◆	11
Elementary	10	21	67
Some High School	38	48	81
High School Graduate or GED	193	34	496
Some College or Technical School	129	27	473
College Graduate	51	9	406
Unknown/Refused	—	—	1
Income			
< $10,000	28	38	58
$10,000-14,999	44	55	87
$15,000-19,999	34	25	96
$20,000-24,999	43	37	117
$25,000-34,999	57	25	213
$35,000-50,000	94	27	315
$50,000-74,999	52	19	267
> $75,000	39	14	245
Unknown/Refused	33	24	137

	n	%	N
Race			
Native	126	37	313
95% Confidence Interval (29.6-44.3%)			
Non-Native	296	23	1,222
95% Confidence Interval (19.7-26.5%)			
Marital Status			
Married	193	21	901
Divorced	85	37	213
Widowed	23	31	86
Separated	14	◆◆	27
Never Married	86	32	257
Unmarried Couple	22	◆◆	48
Unknown/Refused	1	◆◆	3
Employment			
Employed	273	23	1,084
Unemployed	62	45	116
Homemaker	25	18	104
Student	11	◆◆	39
Retired or unable to work	53	32	191
Unknown	—	—	1
TOTAL	**424**	**25.0**	**1,535**

95% Confidence Interval (21.8-28.1%)

◆◆ = 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 = 1535.

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, 26.8% reported to have ever used or tried chewing tobacco or snuff or both. Of men, 43.7% had used or tried such products, and 7.9% of women.

Among Alaskan adults, 6.7% were current smokeless tobacco users. The prevalence of smokeless tobacco use was higher among males (11.8%) than females (1.0%).

Among the 18 to 24 year old males, 22% used smokeless tobacco and among the 18 to 24 year old females 2% 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)

At Risk for Smokeless Tobacco Use

By age and gender

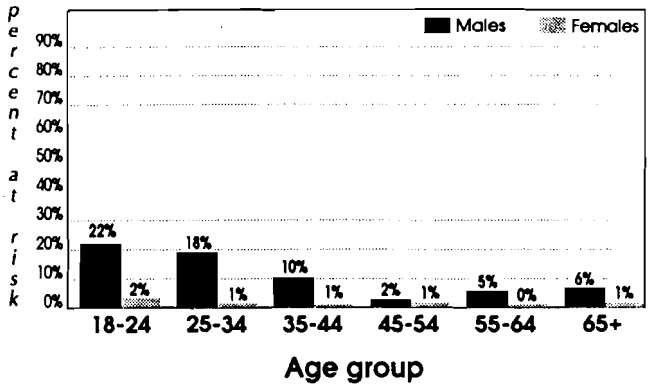


Table 10

Prevalence of Smokeless Tobacco Use by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	95	11.8	753
Female	12	1.0	782
Age			
18-24	15	13	121
25-34	41	10	342
35-44	23	6	446
45-54	10	2	320
55-64	8	3	164
65+	9	4	131
Unknown/Refused	1	◆◆	11
Income			
< $10,000	12	13	58
$10,000-14,999	7	7	87
$15,000-19,999	9	11	96
$20,000-24,999	10	12	117
$25,000-34,999	22	9	213
$35,000-50,000	12	4	315
$50,000-74,999	18	8	267
> $75,000	8	4	245
Unknown/Refused	9	6	137
Education			
Never Attended School	2	◆◆	11
Elementary	11	15	67
Some High School	5	6	81
High School Graduate or GED	44	9	496
Some College or Technical School	27	6	473
College Graduate	18	5	406
Unknown/Refused	—	—	1
TOTAL	**107**	**6.7**	**1,535**

◆◆ = Not Reported

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. Total sample size = 1535.

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.

Behavioral Risk Factor Survey

In 1995, 80.8% of Alaskan adults reported having a usual place to go to if they were sick or needed advice about their health. Among adults, 17.7% reported that they did not have a usual place to go to for health care. About 77% of Alaskan adults reported having at least one particular clinic, health center or doctors office that they usually went to for health care. About 3% reported having more than one usual place that they went to for health care.

The most common places that Alaskan adults went to for health care were doctor's offices (52.2%), community clinics (13%), military facilities (10%), hospitals or outpatient clinics (6.2%), public clinics (4.6%). Twelve percent reported going to some other kind of place (not specified).

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)

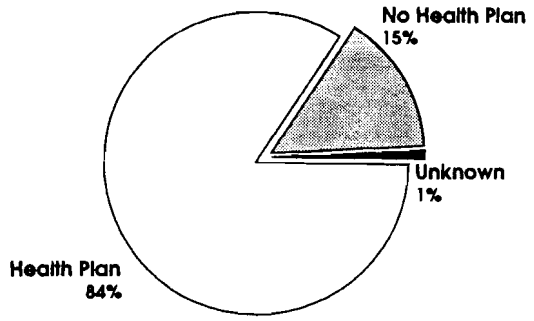
Health Care Coverage and Health Checkups in Alaska

It was estimated that 84.1% of Alaskan adults had some kind of health care plan. According to this survey, 15.2% of Alaskan adults did not (National BRFSS Range 5.70 to 20.88%, National BRFSS Median 11.93%).

Of the persons with no health care plan, 24.5% reported that they had not had health care coverage for over 5 years, 14.5% had not had health care coverage for two to less than five years, 15.4% had not had health care coverage for one to two years and 24.8% had not had health care coverage for less than one year.

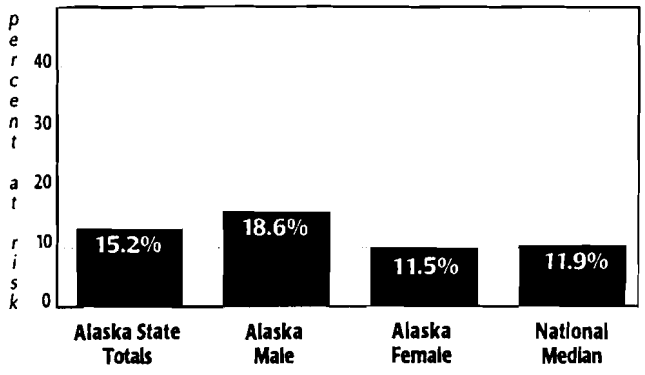
In total, 12.7% of Alaskan adults reported needing to see a doctor in the last year, but could not due to the cost. Of Alaskan females, 14.9% reported not being able to see a doctor due to the cost compared to 10.8% of Alaskan males.

Alaskan Adults with No Health Care Plan



In total, 62.1% of Alaskan adults had visited a doctor within the last year for a routine checkup, even though they were feeling well and had not been sick. Of Alaskan males, 52.7% had visited a doctor for a routine checkup in the last year compared to 72.6% of females.

Comparison of Risk Prevalence for No Health Care Plan



National BRFSS Range 5.70 - 20.88%, Median 11.93%

Routine Checkup by a Doctor within the Past Year

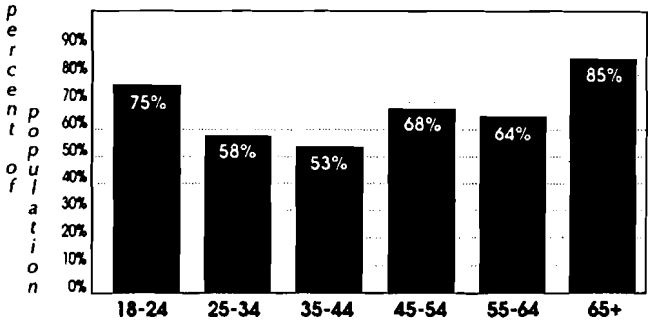


Table 11

Prevalence of No Health Care Plan by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	133	18.6	753
95% Confidence Interval (14.4-22.8%)			
Female	100	11.5	782
95% Confidence Interval (8.4-14.6%)			
Age			
18-24	29	29	121
25-34	61	17	342
35-44	69	15	446
45-54	40	7	320
55-64	28	17	164
65+	3	1	131
Unknown/Refused	3	◆◆	11
Education			
Never Attended School	1	◆◆	11
Elementary	6	8	67
Some High School	25	37	81
High School Graduate or GED	90	17	496
Some College or Technical School	77	16	473
College Graduate	34	9	406
Unknown/Refused	—	—	1
Income			
< $10,000	20	37	58
$10,000-14,999	19	28	87
$15,000-19,999	36	36	96
$20,000-24,999	26	17	117
$25,000-34,999	34	15	213
$35,000-50,000	42	12	315
$50,000-74,999	21	12	267
> $75,000	10	5	245
Unknown/Refused	25	25	137

	n	%	N
Race			
Native	30	9	313
95% Confidence Interval (5.1-12.9%)			
Non-Native	202	16	1,222
95% Confidence Interval (13.2-19.2%)			
Marital Status			
Married	96	9	901
Divorced	54	25	213
Widowed	3	2	86
Separated	9	◆◆	27
Never Married	61	32	257
Unmarried Couple	9	◆◆	48
Unknown/Refused	1	◆◆	3
Employment			
Employed	153	14	1,084
Unemployed	41	40	116
Homemaker	14	11	104
Student	12	◆◆	39
Retired or unable to work	13	7	191
Unknown	—	—	1
TOTAL	**233**	**15.2**	**1,535**

95% Confidence Interval (12.6-17.9%)

◆◆ = 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 = 1535.

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 caries or 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 fluoridation, regular self care, and avoiding harmful foods, tobacco and excessive alcohol use are also important preventive measures.

Oral Health in Alaska

In 1995, most Alaskan adults (71.3%) had visited a dentist or dental clinic within the past year. Of the persons who had not visited a dentist in the last year, 32% cited cost as the main reason for not seeking dental care, 35% reported that they had no reason to go, 10% cited fear or pain as a deterrent and 12% had other reasons. More males (42%) than females (27%) reported there was no reason to visit a dentist in the past year. More females (36%) than males (30%) cited cost as the main reason for not visiting a dentist in the last year.

Among Alaskan adults, 4.2% had all of their permanent teeth removed because of tooth decay or gum disease. Among adults aged 65 and older, 25% 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, 57.1% had never lost any permanent teeth due to dental carries or periodontal diseases.

Of all Alaskan adults, 67% reported having dental insurance and 31 percent reported having no dental insurance coverage. The prevalence of having dental insurance increased with income.

Year 2000 National Health Objectives

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 diseases. (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 13.4)

Increase to at least 70 percent the proportion of people aged 35 and older using the oral health care system during each year. (Objective 13.14)

Blood Pressure Screening

Health Risk Implications

Periodic screening for high blood pressure (hypertension) is recommended for all persons aged 21 years and older by the National Heart, Lung and Blood Institute. Current expert opinion is that adults who do not have high blood pressure should be screened at least once every 2 years if their last diastolic and systolic blood pressure readings were below 85 and 140, respectively. High blood pressure should not be diagnosed on the basis of one reading; elevated readings should be confirmed on more than one reading at each of three separate visits.

Measurement of blood pressure during office visits is also recommended for children and adolescents. In children, criteria for high blood pressure varies by age.

Blood Pressure Screening In Alaska

Definition for this survey: Hypertension (1): Respondents who report they have had their blood pressure checked within the past two years.

It is estimated that 91.4% of Alaskan adults have had their blood pressure checked by a health professional within the past two years (National BRFSS Range 90.11 to 95.78%, National BRFSS Median 93.0%). Of Alaskan females, 94.8% have had their blood pressure checked within the past two years and 88.3% of Alaskan males have had their blood pressure checked within the past two years.

Among Alaskan adults, 81.1% report having had their blood pressure checked within the past year. More Alaskan females (85.5%) had their blood pressure checked within the last year than males (77.2%).

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 12

Prevalence of Blood Pressure Screening by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	665	88.3	753
95% Confidence Interval (84.7-91.8%)			
Female	732	94.8	782
95% Confidence Interval (92.9-96.7%)			
Age			
18-24	115	97	121
25-34	312	92	342
35-44	400	89	446
45-54	290	93	320
55-64	152	80	164
65+	119	97	131
Unknown/Refused	9	◆◆	11
Education			
Never Attended School	9	◆◆	11
Elementary	64	98	67
Some High School	72	87	81
High School Graduate or GED	452	92	496
Some College or Technical School	423	91	473
College Graduate	376	91	406
Unknown/Refused	1	◆◆	1
Income			
< $10,000	52	92	58
$10,000-14,999	76	86	87
$15,000-19,999	81	89	96
$20,000-24,999	111	94	117
$25,000-34,999	187	89	213
$35,000-50,000	284	91	315
$50,000-74,999	247	91	267
> $75,000	234	94	245
Unknown/Refused	125	93	137

	n	%	N
Race			
Native	292	94	313
95% Confidence Interval (90.2-96.7%)			
Non-Native	1101	91	1,222
95% Confidence Interval (88.7-93.4%)			
Marital Status			
Married	831	91	901
Divorced	188	91	213
Widowed	81	96	86
Separated	25	◆◆	27
Never Married	226	92	257
Unmarried Couple	43	◆◆	48
Unknown/Refused	3	◆◆	3
Employment			
Employed	989	92	1,084
Unemployed	99	81	116
Homemaker	97	96	104
Student	36	◆◆	39
Retired or unable to work	175	90	191
Unknown	1	◆◆	1
TOTAL	**1,397**	**91.4**	**1,535**

95% Confidence Interval (89.3-93.5%)

◆◆ = Not Reported

n = Number of persons who report having had their blood pressure checked within the past two years.

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

N = Total number of respondents in this subgroup. Total sample size = 1535.

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 older at least once every five years and more often for patients diagnosed with high cholesterol.

Classification of Total Cholesterol Levels:

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

Cholesterol Screening In Alaska

Definition used in this survey: Respondents who report they have had their blood cholesterol checked within the past five years.

Only 60.7% of Alaskan adults reported having had their blood cholesterol checked within the past five years (National BRFSS Range 55.10 to 72.93%, National BRFSS Median 65.34%). Among Alaskan adults, 31.6% had never had their blood cholesterol checked.

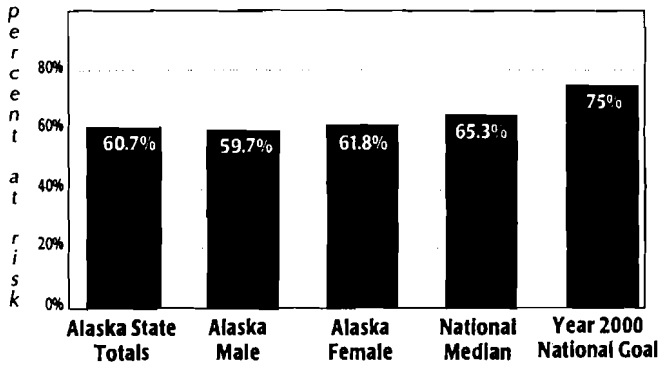
Of those persons that had ever had their blood cholesterol checked, 24.6% reported having been told their blood cholesterol was high.

Year 2000 National Health Objectives

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)

Comparison of Prevalence for Cholesterol Screening



National BRFSS Range 55.10 - 72.93%, Median 65.34%

Prevalence of Cholesterol Screening

By age and gender

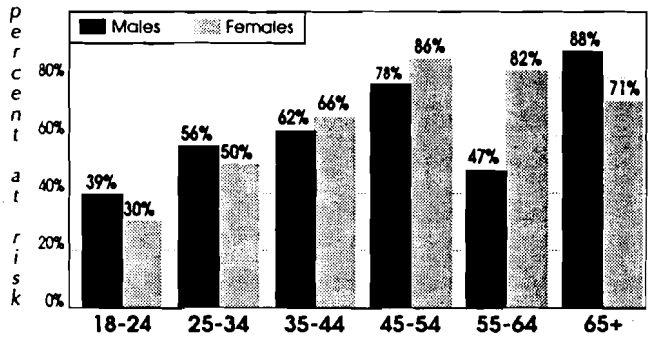


Table 13

Prevalence of Cholesterol Screening by Selected Demographics

Alaska BRFSS 1995

	n	%	N
Gender			
Male	442	59.7	753
95% Confidence Interval (54.4-65.0%)			
Female	473	61.8	782
95% Confidence Interval (57.0-66.6%)			
Age			
18-24	37	35	121
25-34	162	53	342
35-44	265	64	446
45-54	241	82	320
55-64	123	63	164
65+	83	79	131
Unknown/Refused	4	◆◆	11
Education			
Never Attended School	6	◆◆	11
Elementary	28	38	67
Some High School	38	38	81
High School Graduate or GED	250	54	496
Some College or Technical School	295	60	473
College Graduate	297	75	406
Unknown/Refused	1	◆◆	1
Income			
< $10,000	22	34	58
$10,000-14,999	36	43	87
$15,000-19,999	47	43	96
$20,000-24,999	51	43	117
$25,000-34,999	110	53	213
$35,000-50,000	193	63	315
$50,000-74,999	201	76	267
> $75,000	188	77	245
Unknown/Refused	67	47	137

	n	%	N
Race			
Native	119	39	313
95% Confidence Interval (30.5-46.6%)			
Non-Native	794	64	1,222
95% Confidence Interval (60.2-68.1%)			
Marital Status			
Married	586	64	901
Divorced	134	69	213
Widowed	48	70	86
Separated	14	◆◆	27
Never Married	110	48	257
Unmarried Couple	21	◆◆	48
Unknown/Refused	2	◆◆	3
Employment			
Employed	679	62	1,084
Unemployed	42	41	116
Homemaker	55	57	104
Student	17	◆◆	39
Retired or unable to work	122	68	191
Unknown	—	—	1
TOTAL	**915**	**60.7**	**1,535**

95% Confidence Interval (57.1-64.3%)

◆◆ = Not Reported

n = Number of persons who report having had their cholesterol checked within the past five years.

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

N = Total number of respondents in this subgroup. Total sample size = 1535.

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

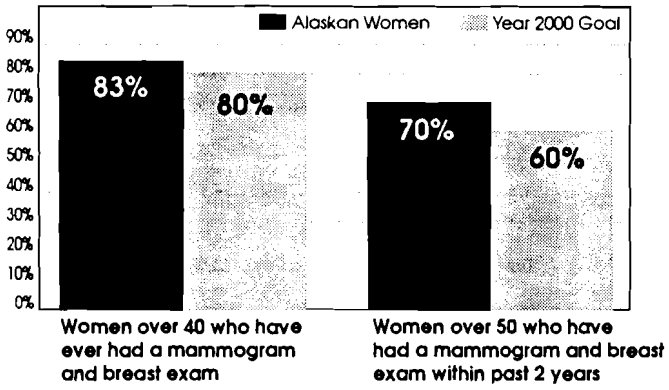
Definitions used in this survey:
Clinical Breast Exams: *A clinical breast exam is when the breast is felt for lumps by a doctor or other medical professional.* Of women aged 18 and older, 92.1% had ever had a clinical breast exam. Of those women who had ever had a breast exam, 77.1% had one within the past year and an additional 13.4% 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, 50.6% had ever had a mammogram. Of those women 18 and older who ever had a mammogram, 85.3% reported their last one was done as part of a routine checkup, 11.3% reported it was done because of a breast problem and 2.4% because they had breast cancer.

Of women aged 40 and older, 87% had ever had a mammogram (National BRFSS Range 72.41 to 90.36%, National BRFSS Median 81.84%).

In 1995, 83% of women 40 and older, had ever had both a mammogram and a breast exam (National BRFSS Range 66.39 to 86.5%, National BRFSS Median 77.17%). Of the women 50 and older, 70% had a mammogram and a breast exam in the past two years (National BRFSS Range 47.51 to 75.71%, National BRFSS Median 61.52%).

Mammography and Breast Exams



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 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), 95.65% had ever had a pap test (National BRFSS Range 88.47 to 97.43%, National BRFSS Median 93.63%). According to this definition, 90.9% of women aged 18 and older (with intact cervix-uteri) had a pap test within the past three years (National BRFSS Range 78.98 to 90.89%, National BRFSS Median 83.58%).

Of the women aged 18 and older who had ever had a pap test, 74.2% were in the last year, 15.6% in the last one to two years, 5.4% within the past two to five years and 4.2% 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)

Colorectal Cancer Screening

Health Risk

In 1997, an estimated 54,900 Americans will die from cancers of the colon or rectum and 131,200 new cases will be diagnosed. With early detection and treatment improvements, stage specific survival rates for cancers of the colon and rectum have been improving.

Digital rectal examination, stool blood test, and proctosigmoidoscopy are recommended by the American Cancer Society to detect colon or rectum cancer in patients without symptoms. A digital rectal examination by a physician during an office visit should be performed every year after the age of 40; the stool blood test is recommended every year after the age of 50; and sigmoidoscopy is recommended every three to five years after the age of 50.

Colorectal Cancer Screening in Alaska

Digital rectal exam: A digital rectal exam is when a doctor or other health professional inserts a finger in the rectum to check for cancer and other problems.

Of Alaskan adults aged 40 and older, 44.6% had a digital rectal exam in the past year (National BRFSS Range 27.29 to 52.79%, National BRFSS Median 40.71%). Of Alaskan adults aged 40 and older, 22.4% had one in the past one to five years, 6.5% had one over five years ago and 21.6% had never had one Of Alaskan adults aged 50 and older, 74.5% had ever had a digital rectal exam.

Proctoscopic exam: A proctoscopic exam is when a tube is inserted in the rectum to check for cancer and other health problems. Of Alaskan adults aged 40 and older, 27.8% had ever had a proctoscopic exam. Of those aged 50 and older, 41% had ever had a proctoscopic exam (National BRFSS Range 21.54 to 50.71%, National BRFSS Median 37.07%).

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)

Pneumonia And Influenza Immunizations

Health Risk

Pneumococcal pneumonia infects the lungs, causes difficulty in breathing and can be fatal. Older persons are two to three times more likely to get this type of pneumonia than the general population. In Alaska, immunization is recommended for anyone age 55 and over and for those of any age with certain chronic illnesses. In Alaska, a routine six year booster is recommended for individuals who receive a pneumococcal vaccination.

Influenza (flu) can be dangerous to the elderly, those who are debilitated, and those with heart or lung disease because it lowers the person's resistance to other infections that may be fatal. The elderly are most likely to be seriously ill or to die from the flu or related complications. People more than 65 years old and those with chronic illnesses should be vaccinated each year in the fall or early winter.

Immunizations In Alaska

Among Alaskan adults aged 65 and older, 49% had a flu shot in the past twelve months (National BRFSS Range 44.19 to 70.04%, National BRFSS Median 59.15%). Among males (65 and older) 37% had one in the past twelve months and among females (65 and older) 61% had one in past twelve months.

Among Alaskan adults aged 65 and older, 41% had ever had a pneumonia vaccination (National BRFSS Range 11.41 to 46.64%, National BRFSS Median 36.83%). Among males (65 and older) 38% had ever had a pneumonia vaccination and among females (65 and older) 44% had ever had one.

Year 2000 National Health Objective

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

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 1995, only survey respondents aged 18-64 were asked the HIV and AIDS questions.

Half (51.5%) of Alaskan adults believed that a condom is somewhat effective in preventing getting infected with HIV through sexual activity and 32.8% thought that it is very effective. Most (87.9%) adults said that if they had a sexually active teenager, they would encourage him or her to use a condom.

Many (63.4%) Alaskan adults believed their chance of getting infected with HIV were none, 28.8% thought their chances were low, 3.7% thought their chances were medium and 1.4% thought their chances were high. Among Alaskan adults 12.6% reported having changed their sexual behavior in the last 12 months, due to their knowledge of HIV. Of those who changed their sexual behavior, 74% reported having sexual intercourse with only one partner, 73% reported using condoms for protection, and 93% reported being more careful in selecting sexual partners.

Among Alaskan adults, 48.7% had been tested for HIV. The most common reasons for being tested were to see if infected, as part of a routine check up, for military service and due to pregnancy. The most common places of HIV testing were private doctor, military site or hospital or emergency room.

A large proportion of respondents (72.8%) reported that if they had a child in school, AIDS education should begin in school between Kindergarten and the sixth grade.

Alaskan Beliefs and Opinions About AIDS ◆

What are your chances of getting the AIDS virus?

High	1.4%
Medium	3.7%
Low	28.8%
None	63.4%
Unknown/Refused	2.6%

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

Yes	48.7%
(National BRFSS Range 25.24-54.83% Median 36.35%)	
No	47.7%
Unknown/Refused	3.6%

When was your last test?
(of 598 respondents tested)

1980 - 1988	4.4%
1989 - 1992	23.9%
1993 - 1995	70.0%
Unknown/Refused	1.7%

Did you receive the results of your last HIV test?
(of 598 respondents tested)

Yes	83.0%
No	16.5%
Unknown/Refused	0.5%

Did you receive counseling after getting the results of your last test?
(of 494 respondents who were tested and received their results)

Yes	33.5%
No	66.5%
Unknown/Refused	0.1%

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

Yes	12.6%
No	85.1%
Unknown refused	2.3%

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

Yes	87.9%
(National BRFSS Range 77.15-91.88% Median 86.76%)	
No	2.1%
Would give other advice	6.5%
Unknown/Refused	3.5%

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

Very effective	32.8%
(National BRFSS Range 20.42-46.35%, National Median 31.79%)	
Somewhat effective	51.5%
Not at all effective	6.6%
Did not know how effective	7.5%
Unknown/Refused	1.6%

◆ *Denominator equals 1,406 respondents aged 18-64.*

What was the main reason you had your last AIDS blood test?
(of 598 respondents tested)

To see if infected	18.1%
Military	14.1%
Routine checkup	16.2%
Pregnancy test	13.4%
Insurance	5.6%
Hospitalization	4.3%
Employment	5.9%
Blood donation process	6.0%
Occupational exposure	4.9%
Illness	2.6%
Marriage license	0.8%
Immigration	1.0%
Other	6.5%
Unknown/ Refused	0.6%

Where did you have your last blood test for the AIDS virus?
(of 598 respondents tested)

Hospital or emergency room	18.6%
Military site	19.0%
Private doctor	23.2%
Community health clinic	3.7%
Health department or other public clinic	6.9%
Insurance or company clinic	2.2%
Blood bank	4.9%
Family planning or prenatal clinic	3.4%
AIDS or STD clinic	1.8%
At home/health worker	1.2%
Other	13.0%
Unknown/ Refused	1.0%

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

Kindergarten	7.8%
1st - 3rd grade	23.4%
4th - 6th grade	41.6%
7th - 9th grade	13.9%
10th - 12th grade	1.3%
Don't know or refused	9.8%
Never	2.1%

Unintentional Injuries and Child Safety

Unintentional injuries were the fifth leading cause of death among all ages in the United States and the third leading cause of death in Alaska in 1995. The most common causes of unintentional injury fatalities were motor vehicle injuries, drowning, airplane crashes, poisoning, falls and fires.

In the United States, unintentional injuries are the leading cause of death for persons under the age of 44.

The top three causes of death from unintentional injuries (1991-1994) among Alaskan children (aged 1 through 19) were motor vehicle traffic (including fatal pedestrian and bicycle collisions), drowning and fire.

Between 1991 and 1994, the most common nonfatal unintentional injuries requiring hospitalization among Alaskan children (aged 1 through 19) were falls, motor vehicle traffic, off road vehicle, sports, bicycle, and playground injuries.

Behavioral Risk Factor Survey

How often does the oldest child (between the age of 5 through 15) use a safety belt?
(number of respondents = 548)

Always	80.0%
Nearly Always	7.4%
Sometimes	6.0%
Seldom or never	3.4%
Unknown	1.4%
Never ride in a car	1.9%

How often does the oldest child (under the age of 4) use a safety seat?
(number of respondents = 139)

Always	93%
Nearly Always	1%
Sometimes	1%
Seldom or never	2%
Unknown	1%
Never ride in car	3%

When riding on a bicycle, how often does the oldest child (5 through 15) wear a bicycle helmet while riding a bicycle?

Always	29.3%
Nearly Always	9.5%
Sometimes	12.7%
Seldom	36.9%
Never	0.9%
Unknown	0.9%
Never rides a bicycle	10.8%

When was the last time that the smoke detectors in your home were tested?

Within the past six months	67.3%
Within the past 6-12 months	10.3%
Over one year	5.1%
Never	8.4%
No smoke detectors	3.4%
Unknown	5.5%

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 14 – 24

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.

1995 BRFSS Sampling Regions

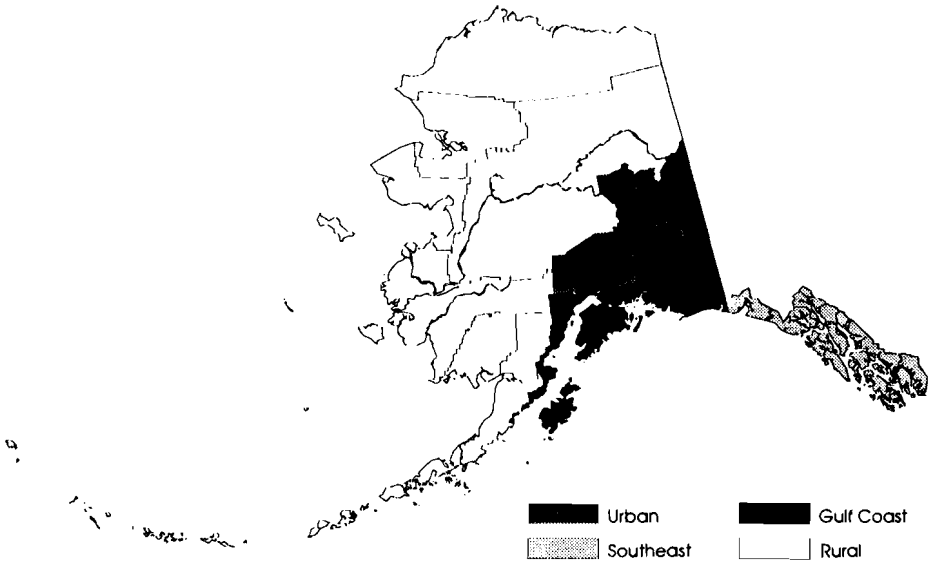


Table 14

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

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	47	28	168	20.6 - 35.3
Female	26	11	219	6.9 - 15.6
Total	73	20	387	15.5 - 24.4
Chronic Drinking				
Male	6	4	168	0.5 - 6.9
Female	3	1	219	0.0 - 2.1
Total	9	2	387	0.7 - 4.1
Overweight (2)				
Male	53	31	168	23.1 - 38 0
Female	66	30	219	23.6 - 36.6
Total	119	30	387	25.3 - 35.3
High Blood Pressure				
Male	32	20	168	13.2 - 26.4
Female	40	17	219	12.2 - 22.7
Total	72	19	387	14.4 - 22.9
Safety Belt Non-Use (3)				
Male	57	33	168	25.4 - 40.8
Female	38	17	219	12.0 - 22.5
Total	95	26	387	20.7 - 30.3
Current Smoking				
Male	44	24	168	17.6 - 31.3
Female	54	22	219	16.4 - 27.7
Total	98	23	387	18.8 - 27.8
No Health Care Plan				
Male	30	17	168	11.3 - 23.5
Female	22	10	219	5.8 - 14.4
Total	52	14	387	10.1 - 17.7

Table 15

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

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	45	25	195	18.2 - 32.0
Female	24	13	187	7.6 - 17.8
Total	69	20	382	15.0 - 24.0
Chronic Drinking				
Male	14	7	195	2.9 - 10.0
Female	2	1	187	0.0 - 2.0
Total	16	4	382	1.9 - 5.9
Overweight (2)				
Male	74	35	195	27.5 - 41.9
Female	58	34	187	26.7 - 41.9
Total	132	35	382	29.3 - 39.7
High Blood Pressure				
Male	51	24	195	17.6 - 30.8
Female	38	20	187	13.5 - 25.6
Total	89	22	382	17.6 - 26.6
Safety Belt Non-Use (3)				
Male	104	54	195	46.3 - 61.6
Female	64	35	187	27.1 - 42.0
Total	168	45	382	39.6 - 50.7
Current Smoking				
Male	50	26	195	18.9 - 32.6
Female	55	26	187	19.3 - 32.7
Total	105	26	382	21.0 - 30.7
No Health Care Plan				
Male	49	27	195	20.2 - 34.5
Female	43	24	187	16.8 - 30.3
Total	92	26	382	20.6 - 30.6

Table 16

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

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	43	23	187	16.3 - 30.0
Female	14	6	197	2.5 - 8.8
Total	57	15	384	10.8 - 18.9
Chronic Drinking				
Male	15	9	187	3.6 - 13.6
Female	4	2	197	0.0 - 3.3
Total	19	5	384	2.5 - 8.1
Overweight (2)				
Male	59	30	187	23.2 - 37.7
Female	69	34	197	27.0 - 41.8
Total	128	32	384	27.1 - 37.5
High Blood Pressure				
Male	38	19	187	12.9 - 24.9
Female	45	22	197	15.2 - 27.9
Total	83	20	384	15.8 - 24.5
Safety Belt Non-Use (3)				
Male	90	50	187	41.6 - 57.6
Female	69	36	197	28.1 - 43.1
Total	159	43	384	37.4 - 48.6
Current Smoking				
Male	52	28	187	20.4 - 35.4
Female	43	20	197	14.0 - 26.6
Total	95	24	384	19.3 - 29.3
No Health Care Plan				
Male	27	15	187	9.5 - 21.4
Female	17	10	197	4.7 - 14.8
Total	44	13	384	8.8 - 16.7

Table 17

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

Risk Factor	n	%	N	95% C.I.
Acute (Binge) Drinking				
Male	51	23	203	16.5 - 29.8
Female	23	15	179	8.3 - 21.3
Total	74	20	382	14.9 - 24.2
Chronic Drinking				
Male	9	3	203	0.5 - 5.4
Female	2	2	179	0.0 - 3.6
Total	11	2	382	0.7 - 4.0
Overweight (2)				
Male	74	31	203	23.5 - 38.7
Female	66	36	179	27.4 - 44.1
Total	140	33	382	27.5 - 38.7
High Blood Pressure				
Male	43	18	203	12.3 - 24.5
Female	36	20	179	13.2 - 27.1
Total	79	19	382	14.6 - 23.8
Safety Belt Non-Use (3)				
Male	114	58	203	49.7 - 66.7
Female	85	52	179	43.0 - 60.7
Total	199	56	382	49.3 - 61.6
Current Smoking				
Male	73	38	203	29.4 - 45.9
Female	53	32	179	23.9 - 41.0
Total	126	35	382	29.5 - 41.3
No Health Care Plan				
Male	27	19	203	10.7- 27.5
Female	18	10	179	4.5 - 14.4
Total	45	15	382	9.6 - 20.3

Table 18

Acute (Binge) Drinking by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	47	28	168	20.6 - 35.3
Female	26	11	219	6.9 - 15.6
Total	73	20	387	15.5 - 24.4
Gulf Coast (Region 2)				
Male	45	25	195	18.2 - 32.0
Female	24	13	187	7.6 - 17.8
Total	69	20	382	15.0 - 24.0
Southeast (Region 3)				
Male	43	23	187	16.3 - 30.0
Female	14	6	197	2.5 - 8.8
Total	57	15	384	10.8 - 18.9
Rural (Region 4)				
Male	51	23	203	16.5 - 29.8
Female	23	15	179	8.3 - 21.3
Total	74	20	382	14.9 - 24.2

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

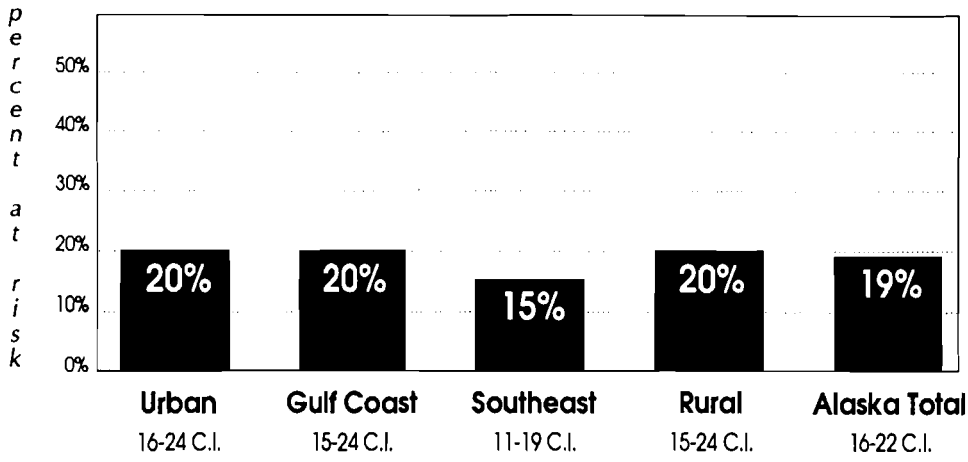


Table 19

Chronic Drinking by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	6	4	168	0.5 - 6.9
Female	3	1	219	0.0 - 2.1
Total	9	2	387	0.7 - 4.1
Gulf Coast (Region 2)				
Male	14	7	195	2.9 - 10.0
Female	2	1	187	0.0 - 2.0
Total	16	4	382	1.9 - 5.9
Southeast (Region 3)				
Male	15	9	187	3.6 - 13.6
Female	4	2	197	0.0 - 3.3
Total	19	5	384	2.5 - 8.1
Rural (Region 4)				
Male	9	3	203	0.5 - 5.4
Female	2	2	179	0.0 - 3.6
Total	11	2	382	0.7 - 4.0

Comparison of Risk Prevalence for Chronic Drinking by Region

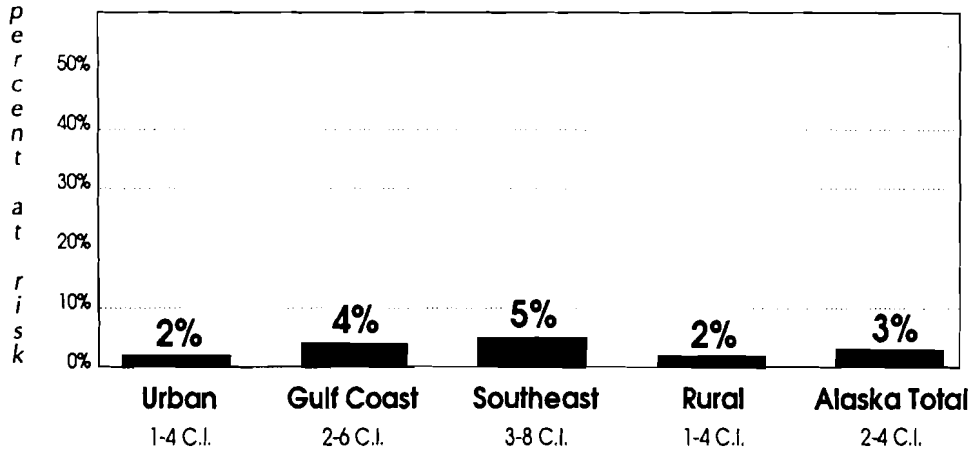


Table 20

Overweight (2) by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	53	31	168	23.1 - 38.0
Female	66	30	219	23.6 - 36.6
Total	119	30	387	25.3 - 35.3
Gulf Coast (Region 2)				
Male	74	35	195	27.5 - 41.9
Female	58	34	187	26.7 - 41.9
Total	132	35	382	29.3 - 39.7
Southeast (Region 3)				
Male	59	30	187	23.2 - 37.7
Female	69	34	197	27.0 - 41.8
Total	128	32	384	27.1 - 37.5
Rural (Region 4)				
Male	74	31	203	23.5 - 38.7
Female	66	36	179	27.4 - 44.1
Total	140	33	382	27.5 - 38.7

Comparison of Risk Prevalence for Overweight (2)
by Region

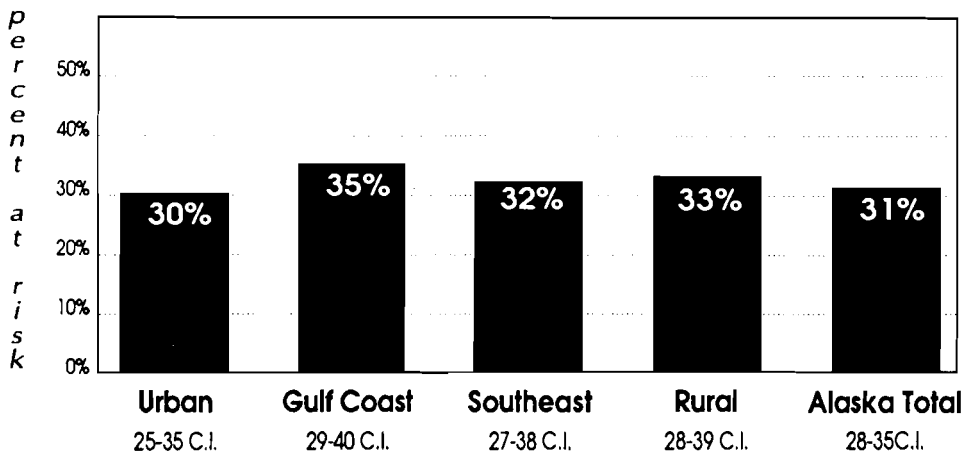


Table 21

High Blood Pressure by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	32	20	168	13.2 - 26.4
Female	40	17	219	12.2 - 22.7
Total	72	19	387	14.4 - 22.9
Gulf Coast (Region 2)				
Male	51	24	195	17.6 - 30.8
Female	38	20	187	13.5 - 25.6
Total	89	22	382	17.6 - 26.6
Southeast (Region 3)				
Male	38	19	187	12.9 - 24.9
Female	45	22	197	15.2 - 27.9
Total	83	20	384	15.8 - 24.5
Rural (Region 4)				
Male	43	18	203	12.3 - 24.5
Female	36	20	179	13.2 - 27.1
Total	79	19	382	14.6 - 23.8

Comparison of Risk Prevalence for High Blood Pressure

by Region

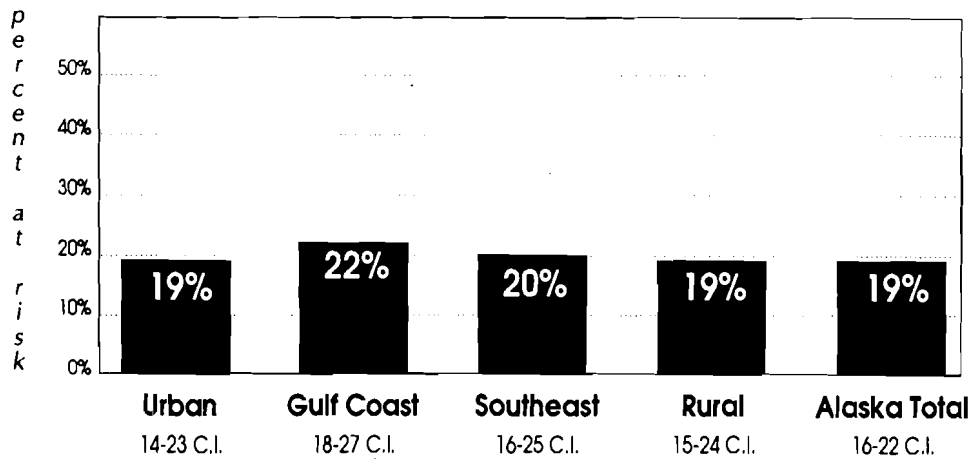


Table 22

Safety Belt Non-Use (3) by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	57	33	168	25.4 - 40.8
Female	38	17	219	12.0 - 22.5
Total	95	26	387	20.7 - 30.3
Gulf Coast (Region 2)				
Male	104	54	195	46.3 - 61.6
Female	64	35	187	27.1 - 42.0
Total	168	45	382	39.6 - 50.7
Southeast (Region 3)				
Male	90	50	187	41.6 - 57.6
Female	69	36	197	28.1 - 43.1
Total	159	43	384	37.4 - 48.6
Rural (Region 4)				
Male	114	58	203	49.7 - 66.7
Female	85	52	179	43.0 - 60.7
Total	199	56	382	49.3 - 61.6

Comparison of Risk Prevalence for Safety Belt Non-Use (3)
by Region

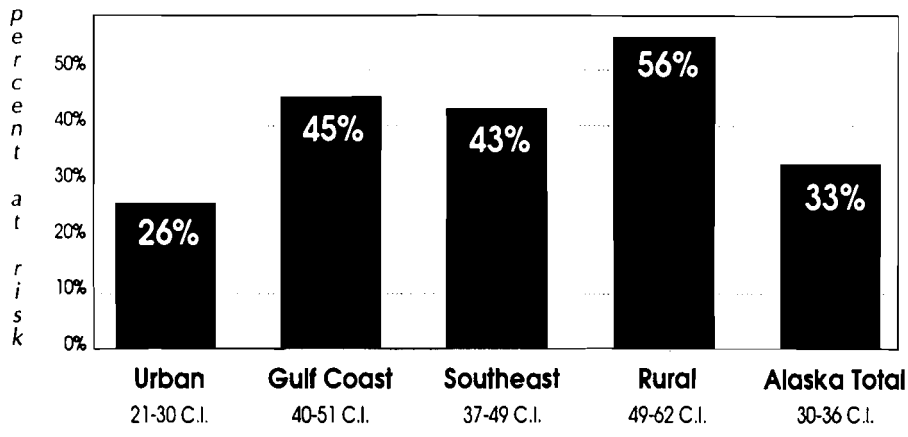


Table 23

Current Smoking by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	44	24	168	17.6 - 31.3
Female	54	22	219	16.4 - 27.7
Total	98	23	387	18.8 - 27.8
Gulf Coast (Region 2)				
Male	50	26	195	18.9 - 32.6
Female	55	26	187	19.3 - 32.7
Total	105	26	382	21.0 - 30.7
Southeast (Region 3)				
Male	52	28	187	20.4 - 35.4
Female	43	20	197	14.0 - 26.6
Total	95	24	384	19.3 - 29.3
Rural (Region 4)				
Male	73	38	203	29.4 - 45.9
Female	53	32	179	23.9 - 41.0
Total	126	35	382	29.5 - 41.3

Comparison of Risk Prevalence for Current Smoking

by Region

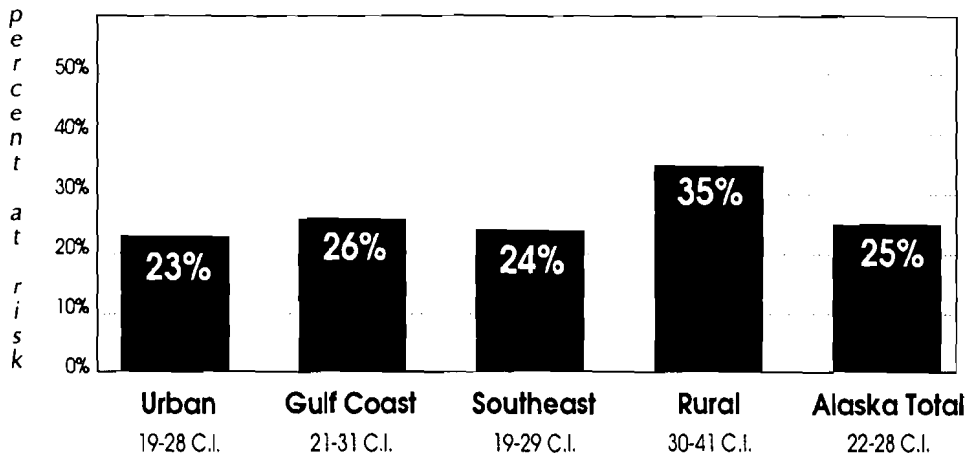


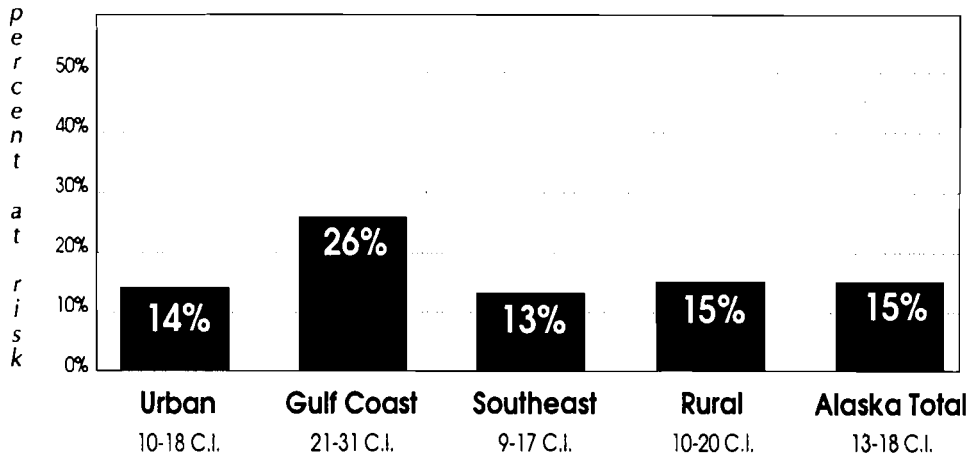
Table 24

No Health Care Plan by Region

Region	n	%	N	95% C.I.
Urban (Region 1)				
Male	30	17	168	11.3 - 23.5
Female	22	10	219	5.8 - 14.4
Total	52	14	387	10.1 - 17.7
Gulf Coast (Region 2)				
Male	49	27	195	20.2 - 34.5
Female	43	24	187	16.8 - 30.3
Total	92	26	382	20.6 - 30.6
Southeast (Region 3)				
Male	27	15	187	9.5 - 21.4
Female	17	10	197	4.7 - 14.8
Total	44	13	384	8.8 - 16.7
Rural (Region 4)				
Male	27	19	203	10.7- 27.5
Female	18	10	179	4.5 - 14.4
Total	45	15	382	9.6 - 20.3

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 Respondents who report they have had their blood pressure checked within the past two years.

Cholesterol Respondents who report they have had their blood cholesterol checked within the past five years.

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 ever been told they have hypertension (high blood pressure).

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 (1) Respondents at or above 120% of ideal weight. Ideal weight defined as the mid-value of a medium frame person from the 1959 metropolitan height-weight tables.

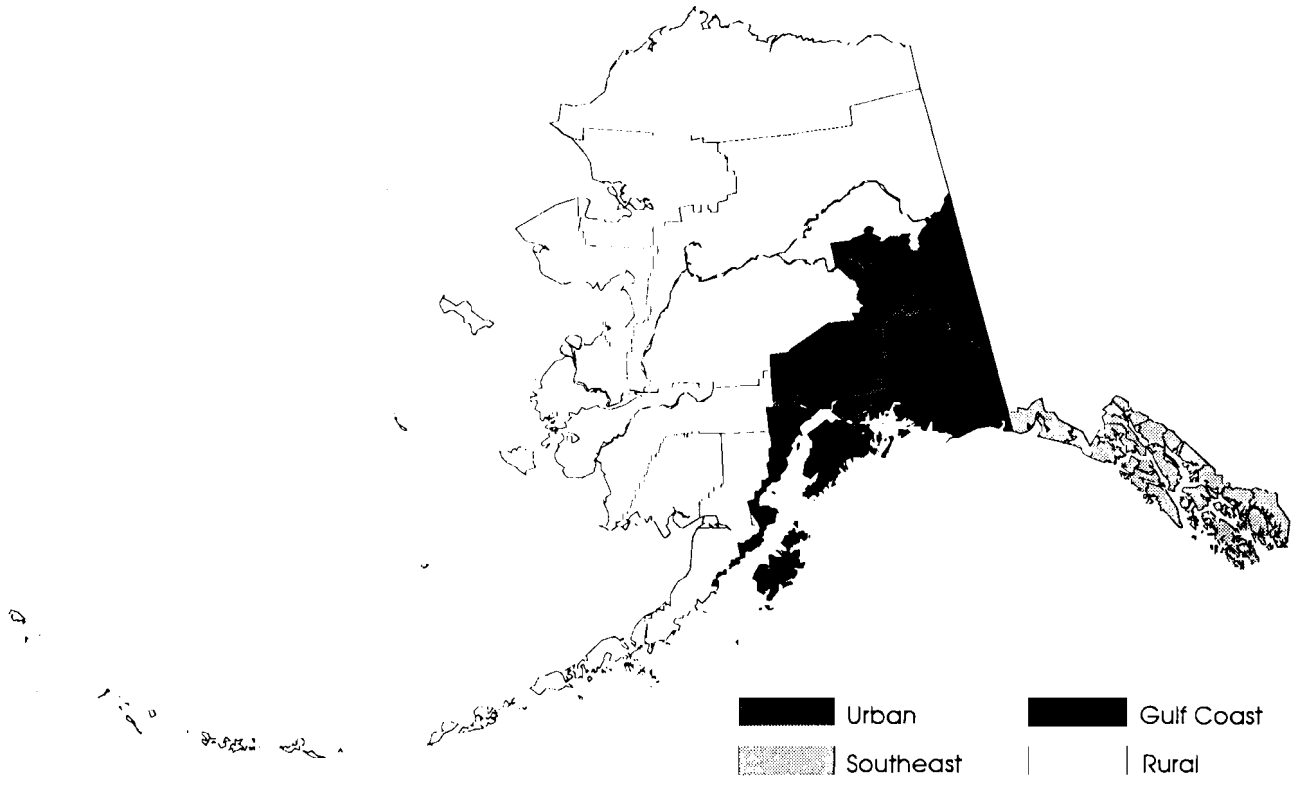
Overweight (2) Females with body mass index [weight in kilograms divided by height in meters squared (W/H**2)]>=27.3 and males with body mass index >= 27.8.

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

Safety Belt (2) Respondents reporting they "sometimes", "seldom" or "never" use seat belts.

Safety Belt (3) Respondents reporting they "not always", "sometimes", "seldom" or "never" use seat belts (i.e., do not always use a seat belt).

Appendix B: 1995 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	268,841	387
Gulf Coast (Region 2) Kenai, Kodiak, Valdez, Cordova & vicinity	48,616	382
Southeast (Region 3) All of Southeast Alaska	51,225	384
Rural (Region 4) All other nonurban areas of Alaska	42,152	382
STATEWIDE TOTAL	**410,834**	**1,535**

◆ Demo-Detail, Estimates of Population Characteristics for Small Areas, County Estimates by Race, Sex, and Single Year of Age: 1990-1995 (July 1).

Appendix C: Alaska BRFSS Sample Design ◆

	18 years and older
Urban (Region 1)	
Anchorage Borough	175,519
Fairbanks-Northstar	56,845
Matanuska-Susitna	32,702
Southeast Fairbanks	3,775
TOTAL	**268,841**
Gulf Coast (Region 2)	
Kenai Peninsula	30,906
Kodiak Island	10,293
Valdez Cordova	7,417
TOTAL	**48,616**
Southeast (Region 3)	
Haines Borough	1,573
Juneau Borough	20,726
Ketchikan Gateway	10,080
Prince of Wales	4,808
Sitka	6,027
Skagway, Angoon	3,128
Wrangell, Petersburg	4,883
TOTAL	**51,225**
Rural (Region 4)	
Aleutians East	1,813
Aleutian Islands	3,906
Bethel Census	9,565
Bristol Bay Borough	699
Dillingham	2,757
Lake and Peninsula Borough	1,122
Nome	5,465
North Slope Borough	4,429
Northwest Arctic	3,745
Wade Hampton	3,619
Yukon-Koyukuk	5,032
TOTAL	**42,152**
STATEWIDE TOTAL	**410,834**

◆ Demo-Detail, Estimates of Population Characteristics for Small Areas, County Estimates by Race, Sex, and Single Year of Age: 1990-1995 (July 1).

Appendix D: Alaska BRFSS Region Description ◆

Age	Total Population	Male	Female
Urban (Region 1)			
18-24	36,074	19,564	16,510
25-34	74,746	37,772	36,974
35-44	78,040	40,907	37,133
45-54	44,714	23,659	21,055
55-64	19,661	10,264	9,397
65+	15,606	7,221	8,385
TOTAL	**268,841**	**139,387**	**129,454**
Gulf Coast (Region 2)			
18-24	5,212	2,907	2,305
25-34	12,471	6,732	5,739
35-44	15,098	8,308	6,790
45-54	8,370	4,652	3,718
55-64	4,028	2,245	1,783
65+	3,437	1,761	1,676
TOTAL	**48,616**	**26,605**	**22,011**
Southeast (Region 3)			
18-24	5,323	2,816	2,507
25-34	12,756	6,642	6,114
35-44	15,200	8,079	7,121
45-54	9,370	5,158	4,212
55-64	4,216	2,277	1,939
65+	4,360	2,047	2,313
TOTAL	**51,225**	**27,019**	**24,206**
Rural (Region 4)			
18-24	6,571	3,642	2,929
25-34	11,970	6,944	5,026
35-44	10,455	6,120	4,335
45-54	6,437	3,622	2,815
55-64	3,562	1,975	1,587
65+	3,157	1,586	1,571
TOTAL	**42,152**	**23,889**	**18,263**

◆ Demo-Detail, Estimates of Population Characteristics for Small Areas, County Estimates by Race, Sex, and Single Year of Age: 1990-1995 (July 1).

Appendix E: Alaska BRFSS 1995 Survey Population
by Age and Gender

Age	Male	Female	Total
Urban (Region1)			
18-24	24	22	46
25-34	45	61	106
35-44	45	63	108
45-54	33	40	73
55-64	13	18	31
65+	6	14	20
Unknown	2	1	3
TOTAL	**168**	**219**	**387**
Gulf Coast (Region 2)			
18-24	14	11	25
25-34	43	43	86
35-44	54	66	120
45-54	40	30	70
55-64	26	20	46
65+	18	16	34
Unknown	0	1	1
TOTAL	**195**	**187**	**382**
Southeast (Region 3)			
18-24	10	12	22
25-34	41	33	74
35-44	62	52	114
45-54	42	54	96
55-64	16	23	39
65+	16	22	38
Unknown	0	1	1
TOTAL	**187**	**197**	**384**
Rural (Region 4)			
18-24	14	14	28
25-34	43	33	76
35-44	49	55	104
45-54	40	41	81
55-64	29	19	48
65+	25	14	39
Unknown	3	3	6
TOTAL	**203**	**179**	**382**

Appendix F: Alaska BRFSS 1995 Survey Population
by Age and Race

Age	Non-Native	Native	Unknown	Total
Urban (Region 1)				
18-24	42	3	1	46
25-34	93	12	1	106
35-44	101	7	0	108
45-54	68	5	0	73
55-64	31	0	0	31
65+	19	1	0	20
Unknown	2	0	1	3
TOTAL	**356**	**28**	**3**	**387**
Gulf Coast (Region 2)				
18-24	21	4	—	25
25-34	75	11	—	86
35-44	118	2	—	120
45-54	64	6	—	70
55-64	44	2	—	46
65+	32	2	—	34
Unknown	1	0	—	1
TOTAL	**355**	**27**	—	**382**
Southeast (Region 3)				
18-24	18	4	0	22
25-34	63	11	0	74
35-44	100	13	1	114
45-54	86	10	0	96
55-64	32	7	0	39
65+	33	4	1	38
Unknown	0	1	0	1
TOTAL	**332**	**50**	**2**	**384**
Rural (Region 4)				
18-24	5	23	—	28
25-34	26	50	—	76
35-44	65	39	—	104
45-54	45	36	—	81
55-64	20	28	—	48
65+	12	27	—	39
Unknown	1	5	—	6
TOTAL	**174**	**208**	—	**382**

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

Large Telephone Exchanges

Randomly Generated Numbers

The advantage of randomly generated numbers is that:

- ✔ unlisted as well as listed numbers are included in the sample;
- ✔ with good information from the telephone utilities, it means many non-working and business numbers can be filtered out; and
- ✔ it is relatively inexpensive.

Generated Numbers from RANDY

RANDY works by randomly selecting a prefix (from a list of relevant prefixes) and generating 48 suffixes (random 4–digit numbers) for it. Each line of prefix-plus-48-suffixes represents one interview. For each potential interview, 48 different suffixes are generated, so that even in the smallest prefixes, the line contains at least one working, residential number with residents willing to be interviewed. RANDY repeats this process until the sample size is achieved.

Information is collected from the telephone utilities on the number of active residential lines in each prefix. 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, pay phones, or not assigned, so as to exclude these numbers.

The data collected is read into the program, which calculates the proportion of working telephone numbers in each prefix. 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:

- A prefix is selected at random.
- RANDY randomly selects a 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 48 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 numbers (in this case, the entire 7-digit number, not just the 4-digit suffix). The program compares the numbers and the second and subsequent occurrences of any repeating numbers are deleted. These deleted numbers are not replaced.

Small Telephone Exchanges

Randomly Selected Numbers from Entered Sample

The reason entered numbers are used for small exchanges, is that in Alaska's smaller exchanges there may be fewer than 100 residential phones (sometimes fewer than ten). If large blocks of numbers cannot be excluded from the potential telephone numbers then generating random suffixes will produce only one in 100 (or even one in 1,000) working numbers (since for every telephone prefix there are 10,000 possible phone numbers).

Small exchanges would produce very low hit rates with randomly generated numbers, unless the utility assigned from only a small block of numbers, which is not usually the case. Two thousand active residential lines are chosen as the cutoff point for using random number generation. Using utility data, those exchanges are identified, and from the most recent available telephone books and CD ROM telephone number databases, all residential numbers listed in each small exchange are entered.

For each region, then, there is a file of all the listed residential telephone numbers in that region. Numbers are chosen from the file randomly and printed out in a list, which is slightly larger than the desired sample size. Enough numbers are included in the list to provide replacements for households which have recently moved (or disconnected their telephones for other reasons since phone book publication) and refusals. 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: 1995 BRFSS Response Rates

Indicator	BRFSS Objective	BRFSS Median	Alaska Achieved
CASRO Response Rate	≥ 75	68.4	68.4
Upper Bound Rate	≥ 90	80.0	80.0
Percent Refusals	≤ 10	7.8	6.0

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.
- 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 1995, survey results were weighted using 1995 Intercensal Population Estimates obtained from Demo-Detail, Alexandria, Virginia.

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