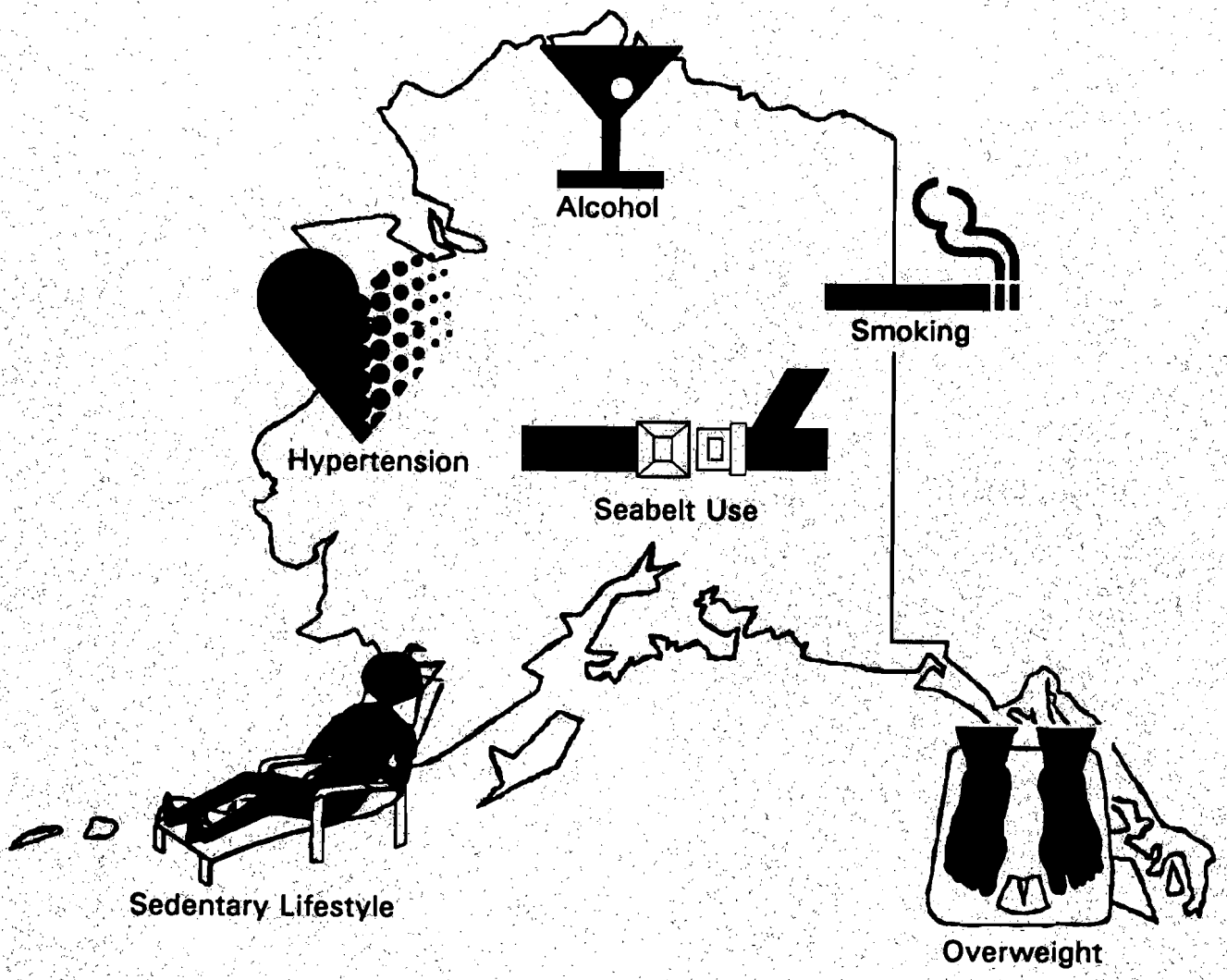
Alaska 1991 Behavioral Risk Factor Survey



Alaska Department of Health and Social Services

ALASKA 1991 BEHAVIORAL RISK FACTOR SURVEY

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FOREWORD

Dear Reader:

Behavior and lifestyle play an important part in determining our health status and lifespan. Every day Alaskans make lifestyle choices that seriously affect their health. Risky health behaviors contribute to the chance of getting long-term diseases or dying prematurely and are factors associated with leading causes of death in Alaska.

In 1991, the Division of Public Health began conducting the Behavioral Risk Factor Survey to assess the overall health and well being of Alaskans. This marks a very significant starting point in our ability to measure progress toward reaching the "Healthy People 2000, Health Promotion and Disease Prevention Objectives" for the nation.

The survey results in 1991 show that the health of Alaskans is at risk for sedentary lifestyle, tobacco use, binge drinking and other factors. Throughout this report, you will become familiar with some of the Year 2000 health goals to reduce unhealthy behavior.

As we move towards the year 2000, the Division of Public Health, Behavioral Risk Factor Surveillance System will continue to provide information for developing health promotion and disease prevention programs for Alaska.

We encourage you to use this information to promote healthy lifestyles in your community and in this state and to work together to attain the Year 2000 health goals.

Sincerely,

Peter A. Nakamura, MD, MPH
Director, Division of Public Health
Department of Health & Social Services

ACKNOWLEDGEMENTS

The Health Promotion Program would like to especially acknowledge Diana Barton, who initiated the Behavioral Risk Factor Surveillance System in Alaska.

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

In addition, the staff wishes to thank the BRFSS staff of the Centers for Disease Control and Prevention, particularly Dr. Emma Frazier and Craig Leutzinger.

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

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National Year 2000 Health Objectives, along with background information pertaining to the health risks as reported in this document are found in Healthy People 2000, National Health Promotion and Disease Prevention Objectives; U.S. Department of Health and Human Services, Public Health Service, DHHS, Publication No. (PHS) 91-50212

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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. Risk factor data also allow monitoring trends in health behaviors. Thus, surveillance of behavioral risk factors can provide the basis for launching and evaluating programs designed to reduce the prevalence of unhealthy behaviors.

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 continued to conduct telephone surveys monthly, and became one of 48 states (including the District of Columbia) participating in an ongoing surveillance system. Each month, 128 adults, ages 18 and older were interviewed regarding their health and day to day living habits. These surveys were conducted from January through December 1991, for a total sample size of 1534 interviews. This report contains the 1991 survey results.

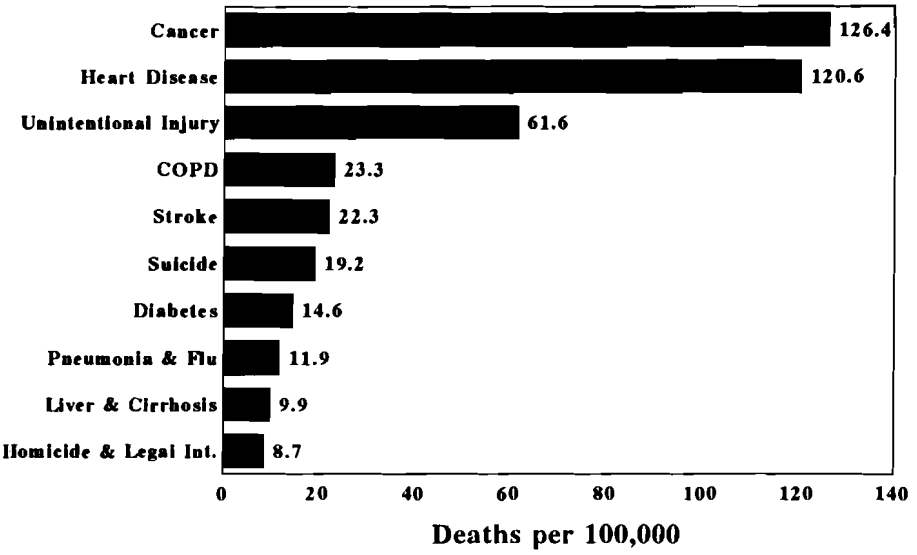
The Division of Public Health, BRFSS continues to conduct monthly telephone surveys on an annual basis.

The ten leading causes of death and the changeable risk factors associated with them

Risk Factors	Leading Causes of Death										
	Heart Disease	Cancers	Stroke	Injuries (nonvehicular)	Influenza/Pneumonia	Injuries (vehicular)	Diabetes	Cirrhosis	Suicide	Homicides	AIDS
Behavioral risk factors											
Smoking	●	●		●	●						
High blood pressure	●		●								
High cholesterol	●										
Diet	●	●					●				
Obesity	●	●					●				
Lack of exercise	●	●	●				●				
Stress	●		●	●		●			●	●	
Alcohol abuse		●		●		●		●	●	●	
Drug misuse	●		●	●		●		●	●	●	
Seat belt nonuse						●					
Handgun possession				●					●	●	
Sexual practices											●

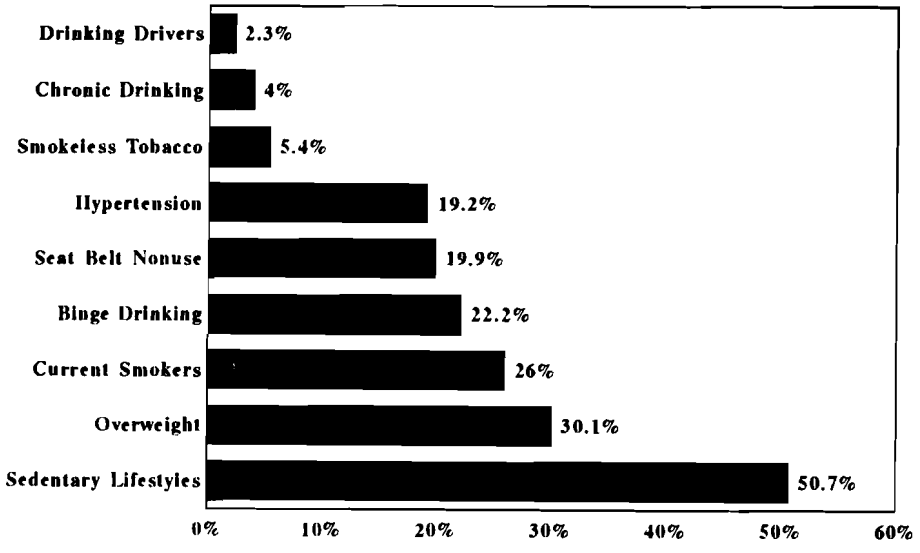
Source: Green LW, Kreuter MW. Health Promotion Planning: An Educational and Environmental Approach. Mayfield 1991.

Leading Causes of Death
Alaska, 1991



Age-Adjusted Death Rate
Alaska Bureau of Vital Statistics
(Provisional Data)

Behavioral Risk Factor Prevalence
Alaska, 1991



Division of Public Health
Alaska BRFSS 1991, Weighted Data

At Risk for Specific Behavioral Risk Factors, 1991

Estimated Number of Alaskan Residents

18 years of Age and Older

Behavioral Risk Factor	Proportion of Population at Risk (Prevalence)	Estimated at Risk*
Sedentary Lifestyle	51%	192,358
Overweight	30%	113,152
Cigarette Smoking	26%	98,065
Acute Drinking	22%	82,979
Seat Belt Nonuse	20%	75,435
Hypertension	19%	71,663
Smokeless Tobacco	5%	18,859
Chronic Drinking	4%	15,089
Drinking and Driving	2%	7,544

* Based on the 1990 Census estimate of 377,173 adults in Alaska

Select Behavioral Risk Factor Definitions

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

Overweight: 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.

Cigarette Smoking: Current regular smoker (ever smoked 100 cigarettes and smoke regularly now).

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

Seat Belt Nonuse: Respondents reporting they "sometimes", "seldom" or "never" use seat belts.

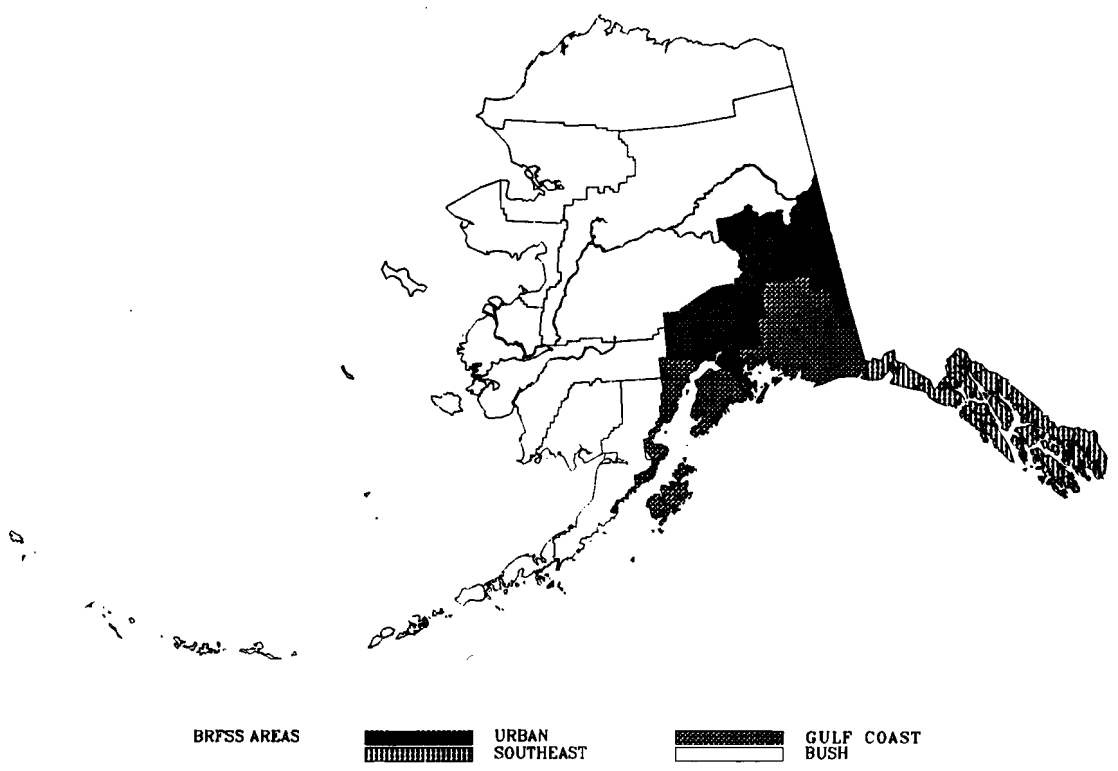
Hypertension: Respondents who report they have ever been told they are hypertensive.

Smokeless Tobacco: Respondents who report currently using smokeless tobacco products such as chewing tobacco or snuff.

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.

BRFSS SAMPLING REGIONS



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

	Total Pop.**	Pop. 18+	# interviews
Strata 1 URBAN Anchorage, Fairbanks & vicinity	349,654	242,103	384
Strata 2 GULF COAST Kenai, Kodiak, Valdez, Cordova & vicinity	64,063	43,574	384
Strata 3 SOUTHEAST All of Southeast Alaska	68,989	48,103	384
Strata 4 BUSH All other nonurban areas of Alaska	67,337	43,393	384
STATEWIDE TOTAL	550,043	377,173	1,536

* See Appendix B
** 1990 Census Population

METHODOLOGY

The Behavioral Risk Factor Surveillance System is conducted by the State Division of Public Health in cooperation with the National Centers for Disease Control and Prevention. 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 strata, 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 1536 (384 per strata). The data in this report were collected from January through December, 1991 and are based on an actual sample size of 1534 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 1991, 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 data base of entered directory numbers for small exchanges. (See Appendix G)

SURVEY INSTRUMENT

The BRFSS instrument is a standardized questionnaire which consists of three sections; 1) the core (which includes demographics), 2) a set of optional modules and 3) state specific questions.

The 1991 questionnaire covered the topics of Diet, Exercise, Tobacco Use, Alcohol Use, Seat Belt Use, Routine Checkups, High Blood Pressure, Cholesterol Checks, Breast and Cervical Cancer Screening, Health Care Coverage, Attitudes and Opinions about AIDS and Injury Control and Child Safety.

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 1991, 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 paper and pencil. Completed questionnaires were then sent to the Centers for Disease Control and Prevention for data entry and editing.

DATA ANALYSIS

The Behavioral Risk Factor Surveillance System (BRFSS) data contains information on Alaskan adults only (age 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 underrepresentation 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 1991, survey results were weighted using 1990 Census data for Alaska. (See Appendix I)

This report is based on revised weighting produced in August 1993. The data are the most accurate reported to date for 1991 and may differ slightly to that reported in the 1991 Behavioral Risk Factor Survey Executive Summary or prior to that date.

Unless otherwise noted the race categories used for this report include White, Alaska Native/American Indian and Other. These race categories include people of hispanic origin. In all cases, Alaska Native includes Native people from Alaska as well as American Indian and Other refers to Black and Asian populations combined.

COMPARISONS

All prevalence comparisons made to the National BRFSS Ranges and the National BRFSS Median are comparisons made to the 48 states participating in the Behavioral Risk Factor Surveillance System in 1991.

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). However, the percentage of households with a telephone varies by region in Alaska (see Appendix F). In general, persons of low socioeconomic status are less likely than persons of higher socioeconomic status to have phones and are undersampled. However, survey results (nationally) from the BRFSS 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 H)

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.

Table 1 on the following page describes the sample population and should be used as a basis for understanding the tables in this report.

Table 1

Survey Population

by Selected Demographics, Alaska BRFSS 1991

N = Total number of survey respondents in this demographic subgroup. Total sample size = 1534.

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

Gender	N	%
Male	756	53.2
Female	778	46.8

Race	N	%
White	1125	80
Alaska Native/ American Indian	323	12
Other	83	8
Unknown/Refused	3	<1

Age	N	%
18-24	126	15
25-34	429	30
35-44	464	27
45-54	231	14
55-64	153	8
65+	123	6
Unknown/Refused	8	<1

Marital Status	N	%
Married	931	66
Divorced	186	9
Widowed	81	3
Separated	40	2
Never Married	238	17
Unmarried Couple	57	4
Unknown/Refused	1	0

Education	N	%
Less Than 9th Grade	92	3
Some High School	113	7
High School Graduate	536	36
Some Technical School	14	<1
Technical School Graduate	19	1
Some College	397	28
College Graduate	225	15
Post Graduate	137	9
Unknown/Refused	1	0

Income	N	%
Less Than $10,000	130	8
$10,000-$14,999	122	7
$15,000-$19,999	108	7
$20,000-$24,999	107	8
$25,000-$34,999	196	13
$35,000-$50,000	300	19
Over $50,000	449	31
Unknown/Refused	122	8

	N	%
TOTAL	1534	100%

PHYSICAL ACTIVITY AND SEDENTARY LIFESTYLE

PHYSICAL ACTIVITY AND SEDENTARY LIFESTYLE

HEALTH RISK

The health benefits of physical activity are significant. Regular physical activity can help to prevent and manage heart disease, high blood pressure, noninsulin-dependent diabetes mellitus, obesity, and other health problems. Regular physical activity has also been associated with lower rates of colon cancer and stroke and may be linked to reduced back injury. On average, physically active people outlive those who are inactive. Regular physical activity can also help to maintain the functional independence of older adults and enhance the quality of life for people of all ages. Physically inactive people are almost twice as likely to develop coronary heart disease as people who engage in regular physical activity.

PHYSICAL ACTIVITY IN ALASKA

Definition for this survey: Sedentary lifestyle: Respondents who report no physical activity or a physical activity or pair of physical activities that were done for 20 minutes or less or fewer than three times per week.

In 1991, approximately half of Alaskan adults or 50.7% had a sedentary lifestyle. (National BRFSS Range 46.57 to 73.45%, National BRFSS Median 56.51%.) There was almost no difference between males and females.

The proportion of adults that report **no** leisure time physical activity was 22.1%. (National BRFSS Range 16.61 to 42.63%, National BRFSS Median 27.96%.)

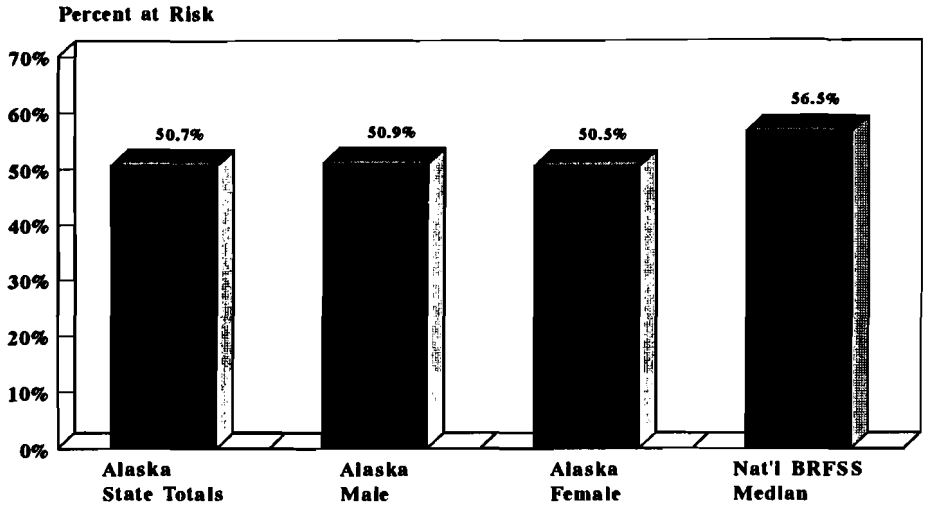
Of the persons who reported exercising, 40% reported walking as their primary exercise. The next most prevalent exercise was the classification of "all others" at 29%. The following were also reported as prevalent; running (7%), yard work (6%), aerobics class (5%) and bicycling (4%).

YEAR 2000 GOALS

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

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

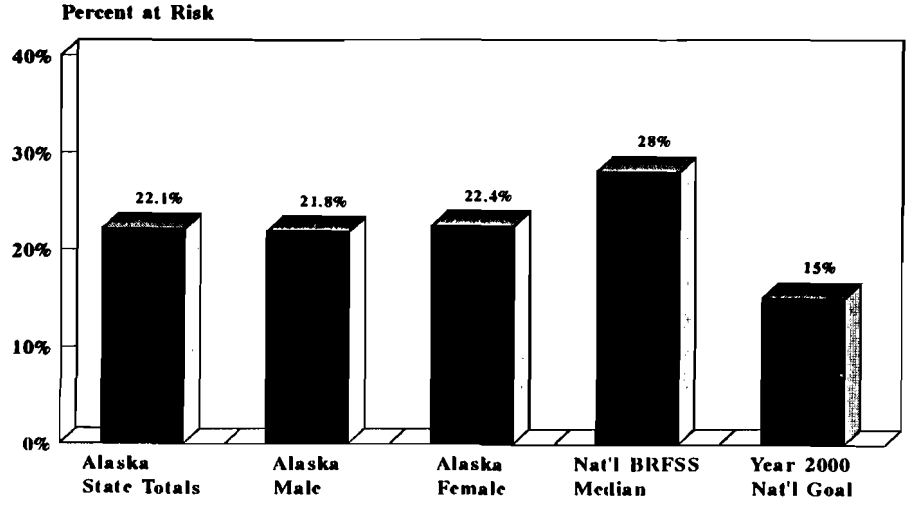
Comparison of Risk Prevalence For Sedentary Lifestyle, 1991



National BRFSS Range 46.57 - 73.45%
National BRFSS Median 56.51%

Division of Public Health
Alaska BRFSS 1991, Weighted Data

Comparison of Risk Prevalence For No Physical Activity, 1991



National BRFSS Range 16.61 - 42.63%
National BRFSS Median 27.96%

Division of Public Health
Alaska BRFSS 1991, Weighted Data

Table 2

Weighted Prevalence of Sedentary Lifestyle

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%
Male	392	50.9
Female	381	50.5

Race	N	%
White	544	50
Alaska Native/ American Indian	179	54
Other	49	53
Unknown/Refused	1	-

Age	N	%
18-24	53	40
25-34	200	50
35-44	229	51
45-54	121	52
55-64	81	53
65+	86	75
Unknown/Refused	3	-

Marital Status	N	%
Married	478	51
Divorced	84	45
Widowed	54	81
Separated	27	**
Never Married	101	44
Unmarried Couple	29	60
Unknown/Refused	-	-

Education	N	%
Less Than 9th Grade	72	81
Some High School	67	65
High School Graduate	291	54
Some Technical School	10	**
Technical School Graduate	11	**
Some College	165	43
College Graduate	101	46
Post Graduate	56	45

Income	N	%
Less Than $10,000	77	49
$10,000-$14,999	66	52
$15,000-$19,999	56	62
$20,000-$24,999	52	48
$25,000-$34,999	108	62
$35,000-$50,000	131	40
Over $50,000	210	50
Unknown/Refused	73	54

	N	%
TOTAL	773	50.7

95% Confidence Interval (47.0 to 54.4%)

* = No physical activity or irregular activity (less than 20 minutes or fewer than 3 times per week).
** = Not Reported

Table 3

Weighted Prevalence of No Physical Activity

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%
Male	170	21.8
Female	150	22.4

Race	N	%
White	209	21
Alaska Native/ American Indian	81	26
Other	30	32

Age	N	%
18-24	19	15
25-34	68	21
35-44	94	21
45-54	46	21
55-64	44	27
65+	48	49
Unknown/Refused	1	**

Marital Status	N	%
Married	192	21
Divorced	33	19
Widowed	30	48
Separated	11	**
Never Married	40	18
Unmarried Couple	14	40
Unknown/Refused	-	-

Education	N	%
Less Than 9th Grade	32	36
Some High School	35	38
High School Graduate	111	22
Some Technical School	2	**
Technical School Graduate	9	**
Some College	72	21
College Graduate	38	15
Post Graduate	21	17

Income	N	%
Less Than $10,000	34	26
$10,000-$14,999	30	24
$15,000-$19,999	25	25
$20,000-$24,999	22	24
$25,000-$34,999	35	23
$35,000-$50,000	51	15
Over $50,000	90	22
Unknown/Refused	33	28

	N	%
TOTAL	320	22.1

* = No physical activity
** = Not Reported

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OVERWEIGHT AND DIET

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:
Definition (1) Overweight: 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.

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

According to definition (1), based on percent of median, 30.1% of Alaskan adults were overweight. (National BRFSS Range 21.33 to 34.09%, National BRFSS Median 27.7%.) Among men, 32.4% were overweight and among women, 27.5% were overweight.

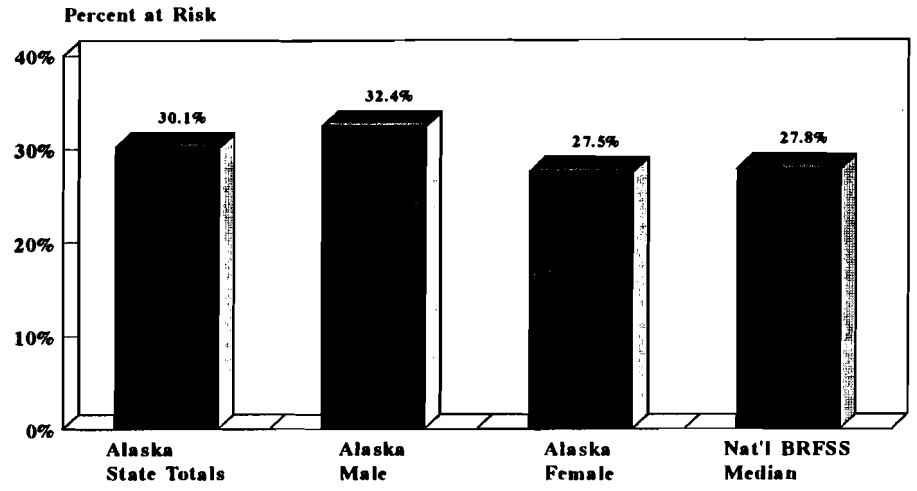
According to definition (2), based on body mass index, 24.6% of Alaskans were overweight. (National BRFSS Range 17.84 to 28.67%, National BRFSS Median 23.37%.) This is slightly higher than the Year 2000 goal of 20%. Among men, 27% were overweight and among women 21.9% were overweight.

Of all those surveyed, 33.4% of adults report trying to lose weight. Of those trying to lose weight, 78% are eating fewer calories to lose weight and 57.9% have increased their physical activity to lose weight.

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)

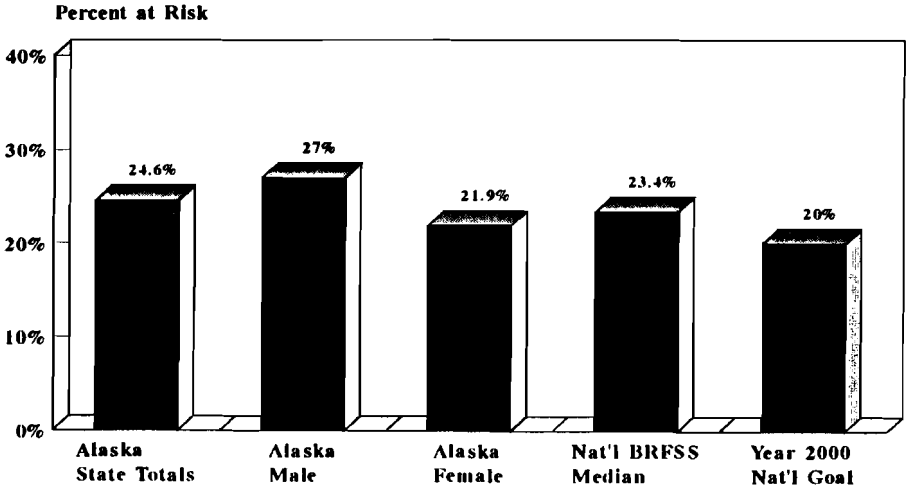
Comparison of Risk Prevalence For Overweight(1)*, 1991



National BRFSS Range 21.33 - 34.09%
National BRFSS Median 27.77%

Division of Public Health
Alaska BRFSS 1991, Weighted Data
*based on percent of ideal weight

Comparison of Risk Prevalence For Overweight(2)*, 1991



National BRFSS Range 17.84 - 28.67%
National BRFSS Median 23.37%

Division of Public Health
Alaska BRFSS 1991, Weighted Data
*based on Body Mass Index

Table 4

Weighted Prevalence of Overweight (1)

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%
Male	252	32.4
Female	239	27.5

Race	N	%
White	352	31
Alaska Native/ American Indian	123	31
Other	16	18

Age	N	%
18-24	22	16
25-34	110	25
35-44	163	38
45-54	84	32
55-64	62	40
65+	50	41

Marital Status	N	%
Married	331	34
Divorced	54	25
Widowed	29	34
Separated	15	**
Never Married	48	17
Unmarried Couple	14	26
Unknown/Refused	-	-

Education	N	%
Less Than 9th Grade	38	32
Some High School	37	29
High School Graduate	176	34
Some Technical School	6	**
Technical School Graduate	4	**
Some College	127	26
College Graduate	66	33
Post Graduate	37	23

Income	N	%
Less Than $10,000	37	23
$10,000-$14,999	49	40
$15,000-$19,999	27	17
$20,000-$24,999	31	34
$25,000-$34,999	63	31
$35,000-$50,000	91	29
Over $50,000	149	33
Unknown/Refused	44	27

	N	%
TOTAL	491	30.1

95% Confidence Interval (26.8 to 33.4%)

* = Overweight based on percent of ideal weight.

** = Not Reported

Table 5

Weighted Prevalence of Overweight (2)

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%
Male	212	27.0
Female	202	21.9

Race	N	%
White	290	25
Alaska Native/ American Indian	109	27
Other	14	17

Age	N	%
18-24	18	14
25-34	87	21
35-44	143	32
45-54	66	21
55-64	55	38
65+	44	31

Marital Status	N	%
Married	275	27
Divorced	46	22
Widowed	25	27
Separated	13	**
Never Married	42	15
Unmarried Couple	13	25
Unknown/Refused	-	-

Education	N	%
Less Than 9th Grade	37	34
Some High School	32	26
High School Graduate	148	28
Some Technical School	6	**
Technical School Graduate	4	**
Some College	106	20
College Graduate	50	25
Post Graduate	31	17

Income	N	%
Less Than $10,000	37	24
$10,000-$14,999	41	34
$15,000-$19,999	25	17
$20,000-$24,999	25	27
$25,000-$34,999	56	29
$35,000-$50,000	73	23
Over $50,000	117	23
Unknown/Refused	40	23

	N	%
TOTAL	414	24.6

95% Confidence Interval (21.5 to 27.7%)

*= Overweight based on body mass index.
** = Not Reported

DIET

HEALTH RISK

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

The Dietary Guidelines for Americans recommend that to stay healthy one should; eat a variety of foods; maintain healthy weight; choose a diet low in fat, saturated fat, and cholesterol; choose a diet with plenty of vegetables, fruits, and grain products; use sugars only in moderation; use salt and sodium only in moderation; and if alcoholic beverages are consumed, do so in moderation.

American adults currently consume about 36% of their total calories from fat, with about 13% of calories from saturated fat, though lower levels (30% of total calories from fat) have been recommended.

Dietary patterns with higher intakes of vegetables (including legumes), fruits, and grains are associated with a variety of health benefits, including a decreased risk for some types of cancer. Populations consuming diets rich in vegetables, fruits, and grain products have significantly lower rates of cancer of the colon, breast, lung, oral cavity, larynx, esophagus, stomach, bladder, uterine cervix, and pancreas.

DIET IN ALASKA

Only 22% of Alaskan adults consume five or more servings of fruits and vegetables per day. More females (26.7%) than males (17.8%) consume fruits and vegetables five or more times per day. Among Alaskan adults, 2.4% eat less than one serving of fruits and vegetables a day, 31.4% eat one to two servings daily, 42.1% eat three to four servings daily and 22% eat five or more servings daily.

Alaskan males are the highest fat consumers; 33% of Alaskan adult males are over the 75th percentile for dietary fat intake, compared to 14% of Alaskan adult females that are over the 75th percentile.

YEAR 2000 NATIONAL HEALTH OBJECTIVES

Increase complex carbohydrate and fiber containing foods in the diets of adults to five or more daily servings for fruits and vegetables, and to six or more daily servings for grain products. (Objective 2.3)

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

TOBACCO USE

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 434,000 deaths, or one fifth of all deaths in the United States. Smoking accounts for 21% of all coronary heart disease deaths, 87% of lung cancer deaths, and 30% of all cancer deaths. 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 smoking for this survey: Respondents who have smoked at least 100 cigarettes in their entire life and smoke regularly now.

Alaska has one of the highest prevalence rates of smoking in the country. Among Alaskan adults, 26% currently smoke cigarettes regularly. (National BRFSS Range 14.29 to 30.24%, National BRFSS Median 22.99%.) It is higher among males (28.5%) than females (23.2%). It is higher among the Alaska Native/American Indian population (39%) compared to the white population (25.1%) and the other populations combined (18%).

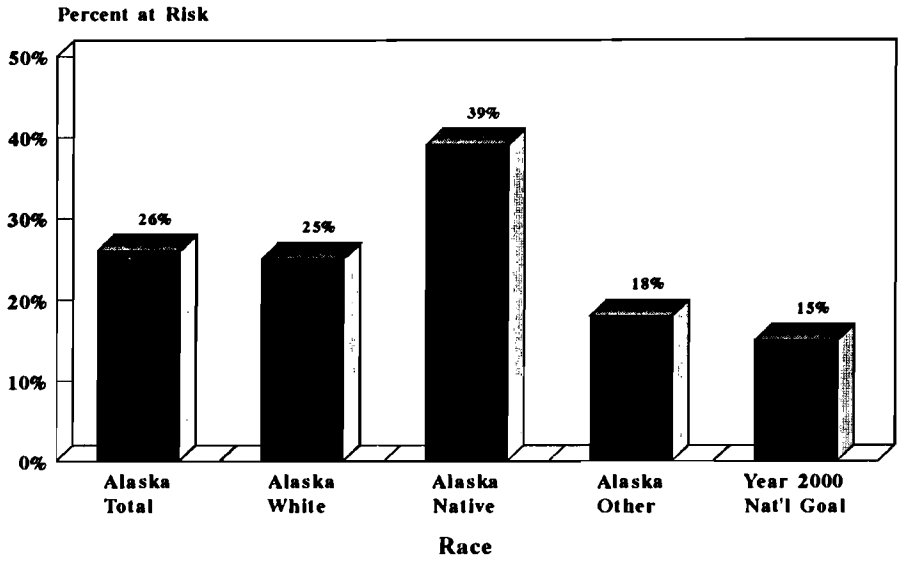
Over half of all the people surveyed (53%) had smoked at least 100 cigarettes in their lifetime. Most (78%) started smoking between the ages of ten and 20 years old. Of those who currently smoke, 74% smoke less than a pack a day and 22% smoke one to two packs a day or more. Of all the people who had smoked during their lifetime, half (49.8%) have quit. Most of those people (61.4%) quit smoking over five years ago. Approximately half (52%) of the persons who still smoke, have 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)

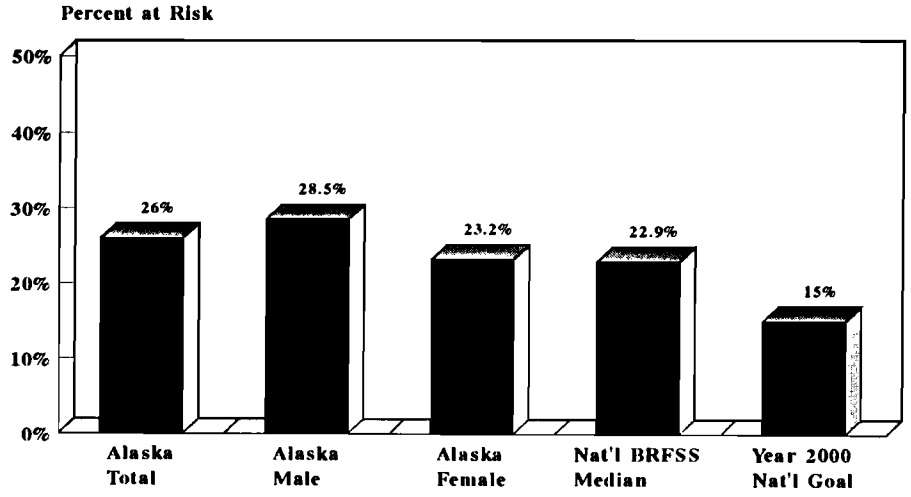
Increase to at least 50% the proportion of cigarette smokers aged 18 and older who stopped smoking cigarettes for at least one day during the preceding year. (Objective 3.6)

Comparison of Risk Prevalence For Cigarette Smoking*, 1991



Division of Public Health
Alaska BRFSS 1991, Weighted Data
*current regular smokers

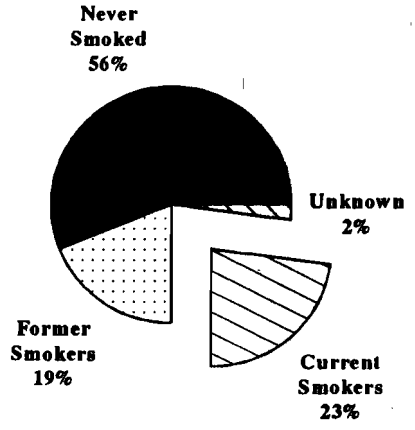
Comparison of Risk Prevalence For Cigarette Smoking*, 1991



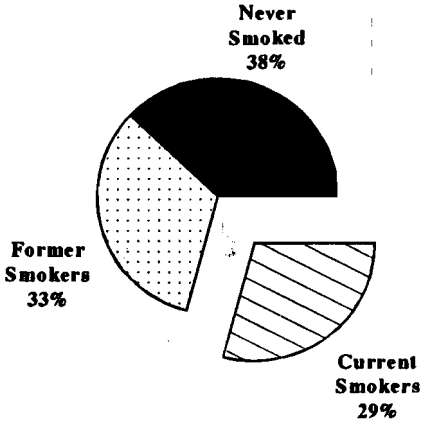
National BRFSS Range 14.29 - 30.24%
National BRFSS Median 22.99%

Division of Public Health
Alaska BRFSS 1991, Weighted Data
*current regular smokers

Smoking Status, Alaskan Adults



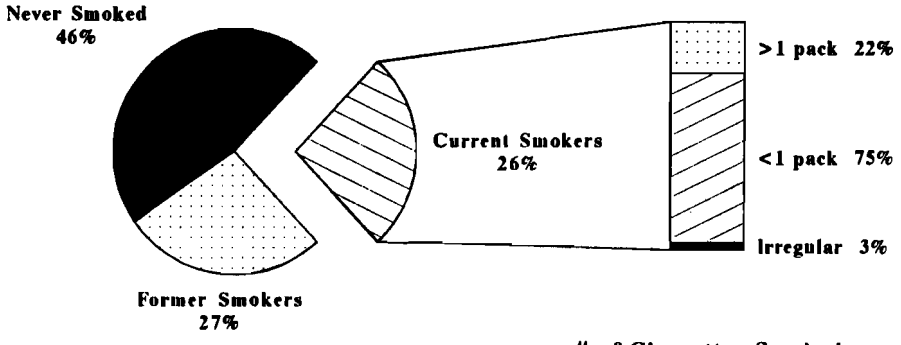
Females



Males

Division of Public Health
Alaska BRFSS 1991, Weighted Data

Number of Cigarettes Smoked by Current Smokers



Smoking Status of All Respondents

# of Cigarettes Smoked by Current Smokers

Division of Public Health
Alaska BRFSS 1991, Weighted Data

Table 6

Weighted Prevalence of Cigarette Smoking

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%
Male	232	28.5
Female	203	23.2

Race	N	%
White	297	25
Alaska Native/ American Indian	125	39
Other	13	18

Age	N	%
18-24	36	22
25-34	132	33
35-44	132	28
45-54	65	21
55-64	39	21
65+	28	14

Marital Status	N	%
Married	230	23
Divorced	76	45
Widowed	22	19
Separated	14	**
Never Married	77	26
Unmarried Couple	16	30
Unknown/Refused	-	-

Education	N	%
Less Than 9th Grade	31	32
Some High School	50	47
High School Graduate	197	31
Some Technical School	3	**
Technical School Graduate	4	**
Some College	100	25
College Graduate	32	15
Post Graduate	18	11

Income	N	%
Less Than $10,000	54	39
$10,000-$14,999	40	31
$15,000-$19,999	45	36
$20,000-$24,999	35	31
$25,000-$34,999	67	30
$35,000-$50,000	65	25
Over $50,000	103	21
Unknown/Refused	26	11

	N	%
TOTAL	435	26.0

95% Confidence Interval (22.8 to 29.2%)

*= Current Regular Smokers
** = Not Reported

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.

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. The prevalence of smokeless tobacco use among males aged 18 through 24 was 8.9% in 1987. Between 1970 and 1986, the prevalence of snuff use increased fifteenfold and chewing tobacco use increased more than fourfold among men aged 17 through 19.

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

SMOKELESS TOBACCO USE IN ALASKA

Of all Alaskan adults, 30.9% reported to have ever used or tried chewing tobacco or snuff or both. Of men, 49.8% have used or tried such products, and 9.3% of women.

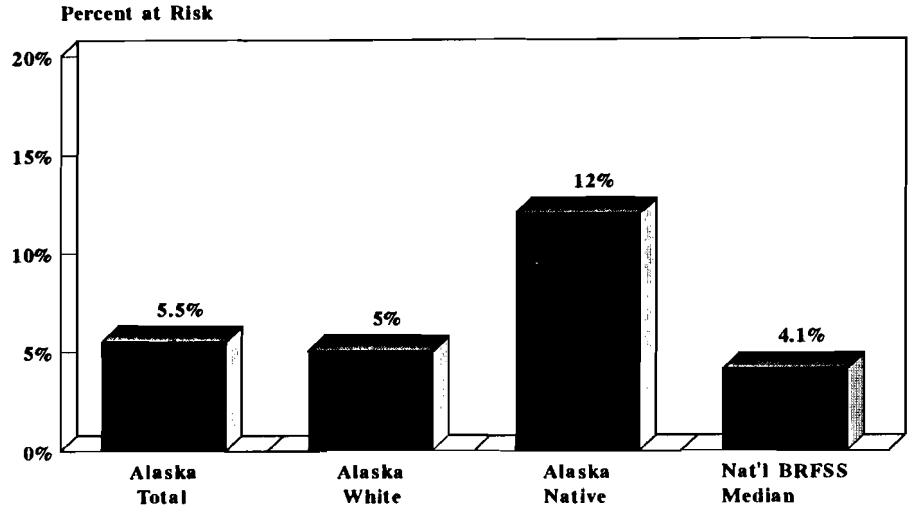
Among Alaskan adults, 5.5% are current smokeless tobacco users. (National BRFSS Range 1.41% to 9%, National BRFSS Median 4.12%.) The prevalence is 5% among the white population, over twice as high among the Alaska Native/American Indians (12%) and not reported among the other populations. The prevalence of smokeless tobacco use is higher among males (9.5%) than females (<1%).

Smokeless tobacco use is highest among the 18 to 24 year old group (11%). Among the 18 to 24 year old males, 18% use smokeless tobacco and among the 18 to 24 year old females 2% use 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)

Comparison of Risk Prevalence For Smokeless Tobacco, 1991

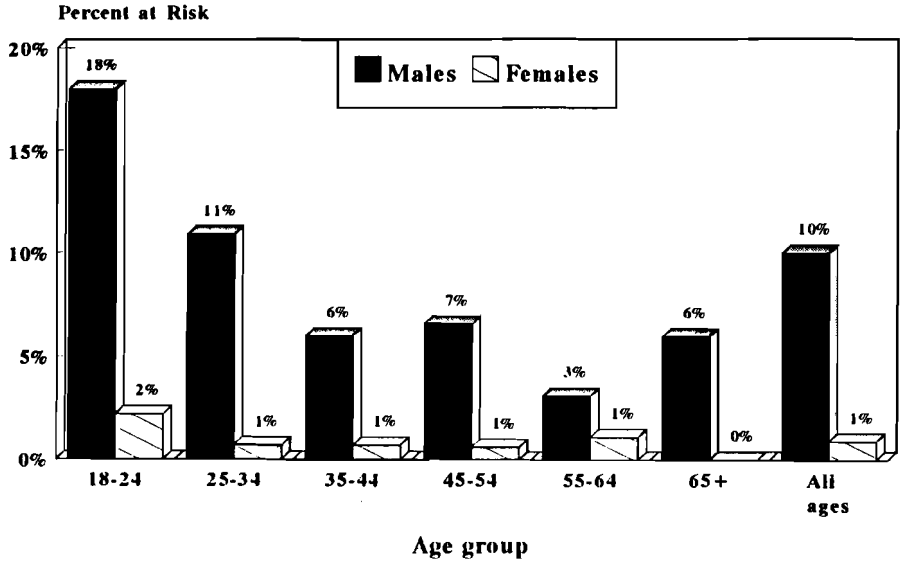


National BRFSS Range 1.41 - 9.00%
National BRFSS Median 4.12%

Division of Public Health
Alaska BRFSS 1991, Weighted Data

At Risk for Smokeless Tobacco Alaska, 1991

By age and gender



Age group

Division of Public Health
Alaska BRFSS 1991, Weighted Data

Table 7

Weighted Prevalence of Smokeless Tobacco Use

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%	Race	N	%
Male	93	9.5	White	62	5
Female	14	0.9	Alaska Native/ American Indian	44	12
			Other	0	-
			Unknown/Refused		
Female Age	**N**	**%**	**Male Age**	**N**	**%**
18-24	3	2	18-24	13	18
25-34	4	1	25-34	38	11
35-44	4	1	35-44	21	6
45-54	1	1	45-54	11	7
55-64	2	1	55-64	4	3
65+	-	-	65+	5	6
Education	**N**	**%**	**Income**	**N**	**%**
Less Than 9th Grade	10	9	Less Than $10,000	11	9
Some High School	7	5	$10,000-$14,999	8	3
High School Graduate	55	9	$15,000-$19,999	14	8
Some Technical School	1	**	$20,000-$24,999	5	8
Technical School Graduate	1	**	$25,000-$34,999	14	7
Some College	23	4	$35,000-$50,000	21	4
College Graduate	5	1	Over $50,000	29	5
Post Graduate	4	3	Unknown/Refused	5	3
Unknown/Refused	1	**			

	N	%
TOTAL	107	5.5

* = Current smokeless tobacco users.

** = Not Reported

ALCOHOL USE

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. Homeless alcohol abusers are at substantially increased risk of trauma, victimization, hypothermia, frostbite, and tuberculosis infection. Alcohol and other drug abuse may be both a cause and an effect of homelessness.

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.

An estimated 22.2% of Alaskan adults were reported as binge drinkers, engaged in acute drinking. This was one of the highest prevalence rates of acute drinking among the states participating in the BRFSS. (National BRFSS Range 4.57 to 23.33%, National BRFSS Median 14.42%.) Of the males 30.5% were binge drinkers and of the females 12.7% were binge drinkers.

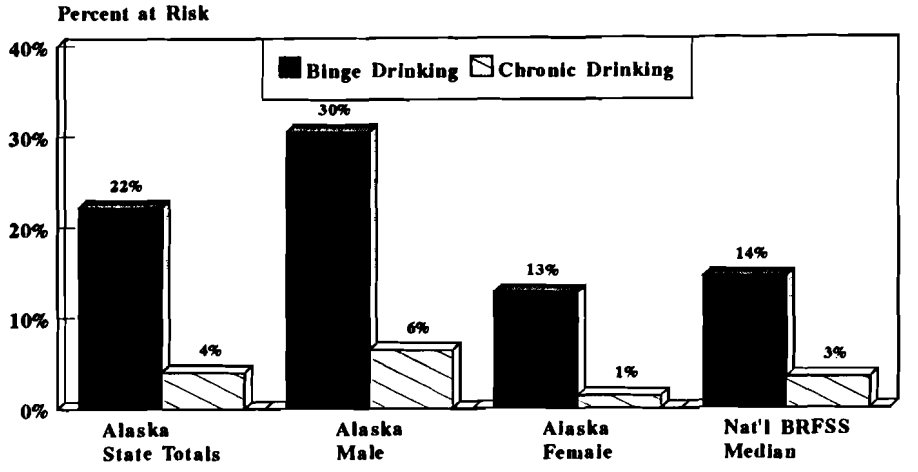
An estimated 4% of Alaskan adults were at risk for chronic drinking. Of males, 6.4% had more than 60 drinks during the past month and of females, 1.4%. (National BRFSS Range 1.28 to 5.41%, National BRFSS Median 3.40%.)

The overall prevalence of drinking and driving among Alaskan adults is estimated at 2.3%. Of the persons who reported drinking during the previous month, 3.9% reported driving after having had too much to drink.

YEAR 2000 NATIONAL HEALTH OBJECTIVE

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 1991 BRFSS.

Comparison of Risk Prevalence For Alcohol Use, 1991



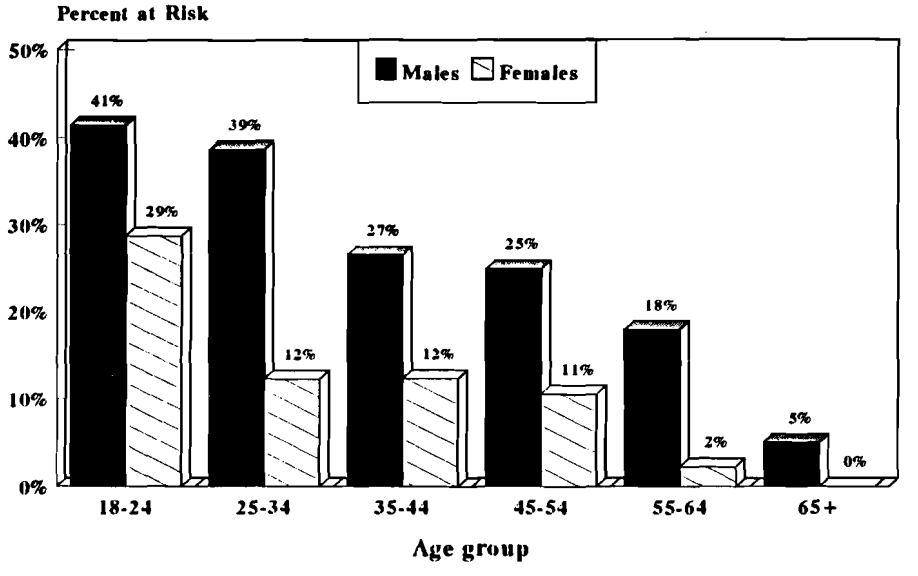
Binge: Nat'l BRFSS Range 4.57 - 23.33%
Nat'l BRFSS Median 14.42%

Chronic: Nat'l BRFSS Range 1.28 - 5.41%
Nat'l BRFSS Median 3.40%

Division of Public Health
Alaska BRFSS 1991, Weighted Data

At Risk for Acute Drinking Alaska, 1991

By age and gender



Division of Public Health
Alaska BRFSS 1991, Weighted Data

Table 8

Weighted Prevalence of Acute Drinking

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%	Race	N	%
Male	227	30.5	White	240	22
Female	105	12.7	Alaska Native/ American Indian	80	27
			Other	12	16
Age	**N**	**%**	**Marital Status**	**N**	**%**
18-24	42	36	Married	163	18
25-34	129	26	Divorced	49	22
35-44	99	20	Widowed	9	7
45-54	37	18	Separated	8	**
55-64	20	11	Never Married	78	38
65+	4	2	Unmarried Couple	25	43
Unknown/Refused	1	**	Unknown/Refused	-	-
Education	**N**	**%**	**Income**	**N**	**%**
Less Than 9th Grade	7	7	Less Than $10,000	19	18
Some High School	26	21	$10,000-$14,999	26	24
High School Graduate	149	28	$15,000-$19,999	25	26
Some Technical School	2	**	$20,000-$24,999	26	23
Technical School Graduate	8	**	$25,000-$34,999	52	30
Some College	89	24	$35,000-$50,000	63	23
College Graduate	32	13	Over $50,000	107	21
Post Graduate	19	12	Unknown/Refused	14	12

	N	%
TOTAL	332	22.2

95% Confidence Interval (19.0 to 25.3%)

*= Having five or more drinks on an occasion, one or more times in the past month.
** = Not Reported

Table 9

Weighted Prevalence of Chronic Drinking

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%
Male	53	6.4
Female	8	1.4

Race	N	%
White	43	4
Alaska Native/ American Indian	15	6
Other	2	4
Unknown/Refused	1	**

Age	N	%
18-24	1	< 1
25-34	20	6
35-44	19	3
45-54	11	7
55-64	7	4
65+	3	1

Marital Status	N	%
Married	35	4
Divorced	6	5
Widowed	2	1
Separated	4	**
Never Married	11	3
Unmarried Couple	3	3

Education	N	%
Less Than 9th Grade	2	7
Some High School	8	7
High School Graduate	24	5
Some Technical School	0	**
Technical School Graduate	2	**
Some College	14	2
College Graduate	6	4
Post Graduate	4	3
Unknown	1	**

Income	N	%
Less Than $10,000	3	4
$10,000-$14,999	3	4
$15,000-$19,999	4	6
$20,000-$24,999	4	2
$25,000-$34,999	13	5
$35,000-$50,000	11	4
Over $50,000	21	5
Unknown/Refused	2	1

	N	%
TOTAL	61	4.0

95% Confidence Interval (2.6 to 5.5%)

* = Having an average of 60 or more alcoholic drinks a month.

** = Not Reported

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SEAT BELT NONUSE

SEAT BELT USE

HEALTH RISK

Unintentional injuries constitute the fourth leading cause of death in the United States, killing approximately 100,000 people each year. During the first four decades of life, unintentional injuries claim more lives than infectious or chronic diseases. In 1987, 2.3 million years of life were prematurely taken by unintentional injuries, more than from any other cause. Motor vehicle crashes account for approximately half the deaths from unintentional injuries; falls rank second, followed by poisoning, drowning and residential fires.

States with mandatory seat belt use laws have significantly lower motor vehicle crash death rates. An estimated 4,500 lives were saved in 1988 as a result of the 45% seat belt use rate obtained nationwide, and 3,800 of those were in States that have mandatory seat belt laws. Alaska is one of the States with a mandatory seat belt law.

SEAT BELT USE IN ALASKA

Definitions for this survey: Seat belt (2): Respondents reporting that they sometimes, seldom or never wear seat belts. Seat belt (3): Respondents reporting that they nearly always, sometimes, seldom or never wear seat belts.

In Alaska, 79.2% of adults reported wearing a seat belt always or nearly always when riding or driving in a car. Among women, 67.7% reported always wearing a seat belt, and 53.5% of the men reported always wearing a seat belt.

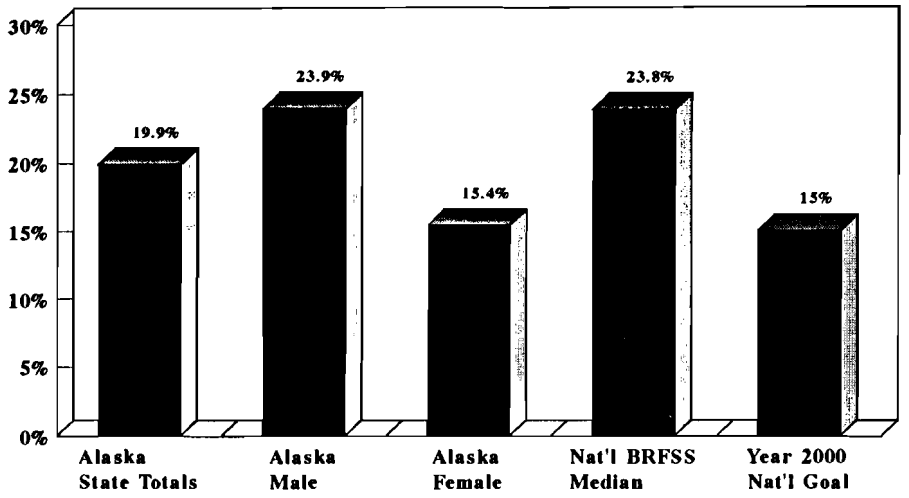
According to definition (2), 19.9% of Alaskan adults were at risk for not wearing seat belts always or nearly all of the time. (National BRFSS Range 3.98 to 56.40%, National BRFSS Median 23.76%.)

According to definition (3), 38.9% of Alaskans were at risk for not wearing a seat belt all of the time. (National BRFSS Range 11.44 to 76.76%, National BRFSS Median 41.47%.)

YEAR 2000 NATIONAL HEALTH OBJECTIVE

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)

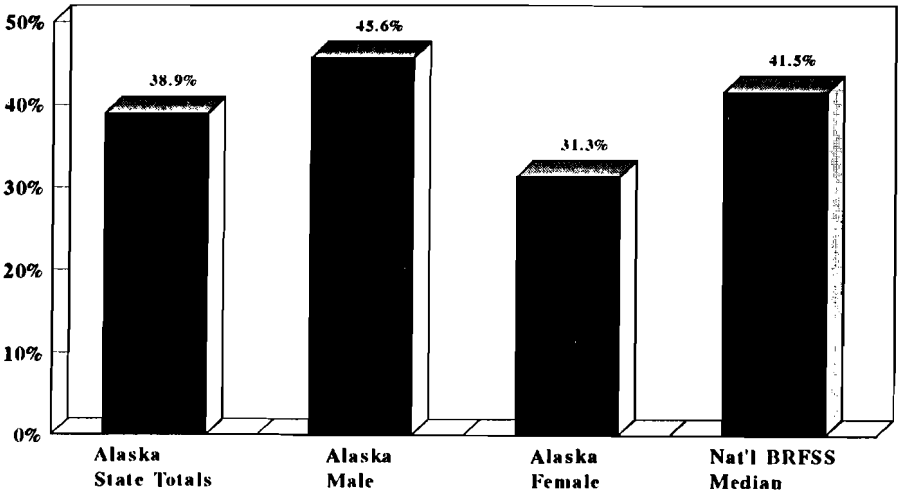
Comparison of Risk Prevalence For Seat Belt Nonuse(2)*, 1991



National BRFSS Range 3.98 - 56.40%
National BRFSS Median 23.76%

Division of Public Health
Alaska BRFSS 1991, Weighted Data
*sometimes, seldom, never

Comparison of Risk Prevalence For Seat Belt Nonuse(3)*, 1991



National BRFSS Range 11.44 - 76.76%
National BRFSS Median 41.47%

Division of Public Health
Alaska BRFSS 1991, Weighted Data
*nearly always, sometimes, seldom, never

Table 10

Weighted Prevalence of Seat Belt Nonuse (2)

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%	Race	N	%
Male	235	23.9	White	247	17
Female	164	15.4	Alaska Native/ American Indian	134	40
			Other	17	16
Age	**N**	**%**	**Marital Status**	**N**	**%**
18-24	40	22	Married	220	18
25-34	111	20	Divorced	50	20
35-44	112	18	Widowed	26	26
45-54	51	17	Separated	11	**
55-64	49	21	Never Married	76	26
65+	33	25	Unmarried Couple	16	20
Unknown/Refused	3	**	Unknown/Refused	-	-
Education	**N**	**%**	**Income**	**N**	**%**
Less Than 9th Grade	30	38	Less Than $10,000	40	25
Some High School	41	28	$10,000-$14,999	31	19
High School Graduate	170	27	$15,000-$19,999	30	16
Some Technical School	3	**	$20,000-$24,999	29	15
Technical School Graduate	7	**	$25,000-$34,999	54	21
Some College	91	16	$35,000-$50,000	77	21
College Graduate	38	10	Over $50,000	108	20
Post Graduate	18	9	Unknown/Refused	30	21
Unknown/Refused	1	**			

	N	%
TOTAL	399	19.9

95% Confidence Interval (17.3 to 22.5%)

*= Sometimes, seldom or never wear seat belts.

** = Not Reported

HIGH BLOOD PRESSURE

HIGH BLOOD PRESSURE

HEALTH RISK

People with high blood pressure (hypertension) have three to four times the risk of developing coronary heart disease and as much as seven times the risk of a stroke as do those with normal blood pressures. Clinical trials show that blood pressure reduction significantly reduces stroke mortality. Recent long-term follow-up of the Hypertension Detection and Follow-up Program clinical trial suggests that blood pressure control can also help to reduce deaths from coronary heart disease.

Approximately 30% of adults have high blood pressure (blood pressure equal to or greater than 140mm Hg systolic and/or 90mm diastolic and/or taking antihypertensive medication).

HIGH BLOOD PRESSURE IN ALASKA

Definition for this survey: Hypertension (2): Respondents who report that they have been told they are hypertensive (have high blood pressure).

An estimated 19.2% have ever been told by a doctor or other health professional that their blood pressure was high. (National BRFSS Range 14.75 to 29.85%, National BRFSS Median 21.0%.) Of Alaskan males, 20.9% report having been told their blood pressure was high and of females, 17.3%. Nineteen percent of whites report having been told their blood pressure was high, compared to 23% of Alaska Native/American Indians and 13% of other races.

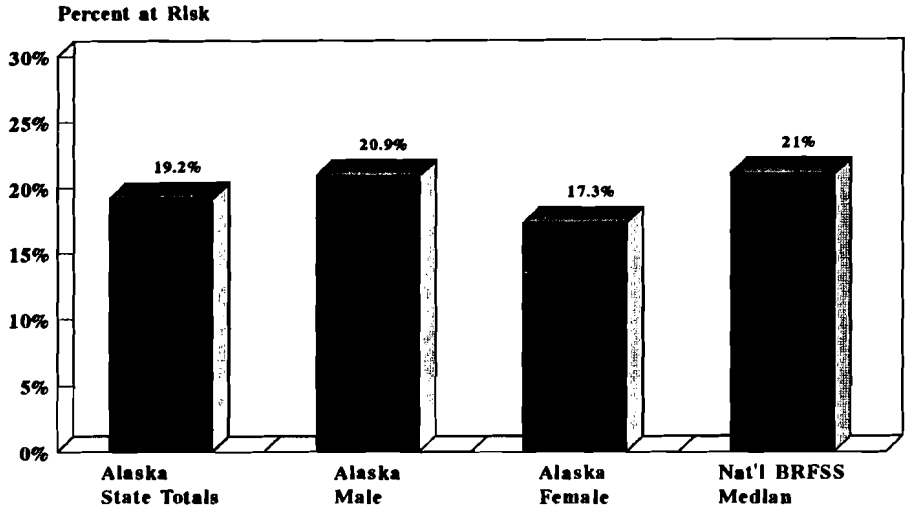
Of the persons who have been told that their blood pressure was high, 34.3% were told only once and 64.7% had been told more than once. An estimated 31.3% of persons who had been told their blood pressure was high, had medicine currently prescribed for high blood pressure. (This does not report whether or not medications were being taken as prescribed.)

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 Hypertension(2), 1991

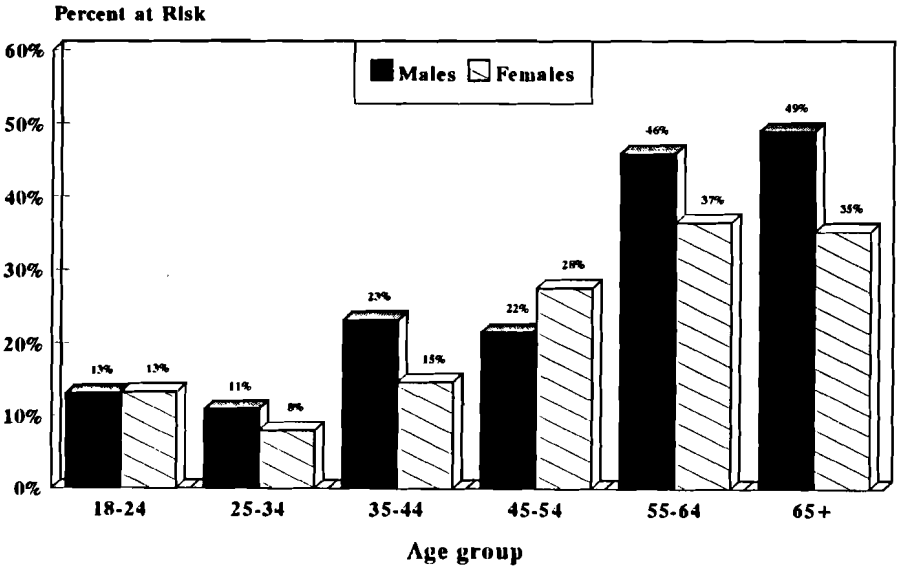


National BRFSS Range 14.75 - 29.85%
National BRFSS Median 21.0%

Division of Public Health
Alaska BRFSS 1991, Weighted Data

At Risk for Hypertension(2) Alaska, 1991

By age and gender



Division of Public Health
Alaska BRFSS 1991, Weighted Data

Table 11

Weighted Prevalence of Hypertension (2)

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents at risk. Total sample size = 1534.*

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

Gender	N	%	Race	N	%
Male	151	20.9	White	224	19
Female	163	17.3	Alaska Native/ American Indian	77	23
			Other	13	13
Age	**N**	**%**	**Marital Status**	**N**	**%**
18-24	15	13	Married	181	20
25-34	48	10	Divorced	38	21
35-44	87	19	Widowed	39	40
45-54	49	24	Separated	10	**
55-64	59	41	Never Married	38	12
65+	54	42	Unmarried Couple	8	18
Unknown/Refused	2	**	Unknown/Refused	-	-
Education	**N**	**%**	**Income**	**N**	**%**
Less Than 9th Grade	32	32	Less Than $10,000	30	18
Some High School	24	10	$10,000-$14,999	36	30
High School Graduate	119	21	$15,000-$19,999	29	21
Some Technical School	5	**	$20,000-$24,999	28	24
Technical School Graduate	4	**	$25,000-$34,999	36	19
Some College	69	17	$35,000-$50,000	45	14
College Graduate	44	23	Over $50,000	82	19
Post Graduate	16	11	Unknown/Refused	28	19
Unknown/Refused	1	**			

	N	%
TOTAL	314	19.2

95% Confidence Interval (16.3 to 22.1%)

* = Have been told they have high blood pressure.

** = Not Reported

HEALTH CARE COVERAGE AND HEALTH CHECKUPS

PREVENTIVE HEALTH PRACTICES

OVERVIEW

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

Many Americans lack access to an ongoing source of primary care, and therefore, to essential clinical preventive services as well as to other health care. Millions of Americans are without any form of health insurance and many more are underinsured. For a variety of reasons, in many areas, access to primary care is limited by an inadequate supply of primary care providers.

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

HEALTH CARE COVERAGE AND HEALTH CHECKUPS IN ALASKA

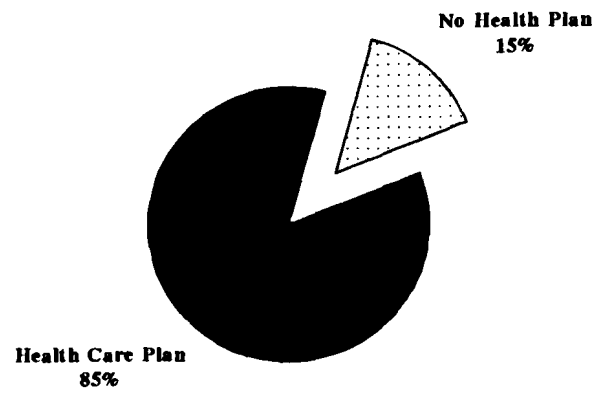
It is estimated that 85% of Alaskan adults have some kind of health care plan. According to this survey, 15% of Alaskan adults do not. (National BRFSS Range 7.22 to 25.72%, National BRFSS Median 14.48%.)

Of those persons with a health care plan, 80% report that their health care plan covers all or most of their doctor visits when they are sick. However, 57% of those with a health care plan report that their plan covers all or most of their preventive services when they are not sick.

In total, 13.4% of Alaskan adults reported needing to see a Doctor in the last year, but could not due to the cost. Of Alaskan females, 17.7% reported the same thing compared to 9.6% of Alaskan males.

In total, 64% 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, 56% had visited a Doctor for a routine checkup in the last year compared to 74% of females.

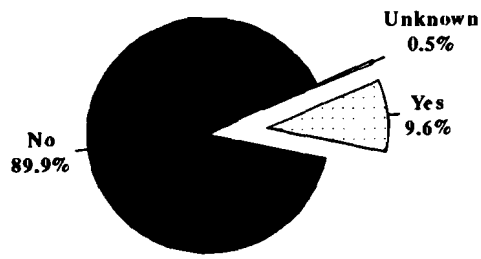
Health Care Coverage in Alaska



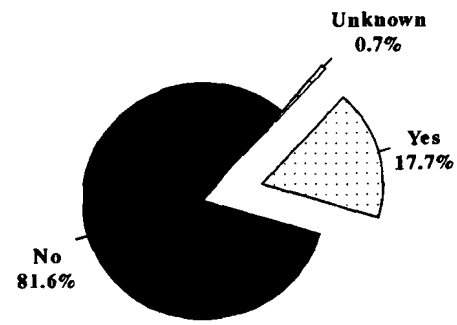
National BRFSS Range 7.22 - 25.72%
National BRFSS Median 14.48%

Division of Public Health
Alaska BRFSS 1991, Weighted Data

During the past year, was there a time when you needed to see a Doctor, but could not due to the cost



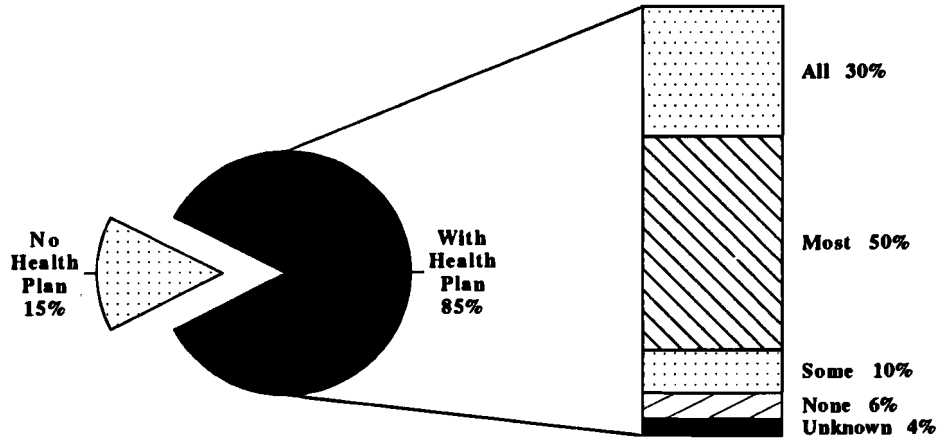
Alaska Males



Alaska Females

Division of Public Health
Alaska BRFSS 1991, Weighted Data

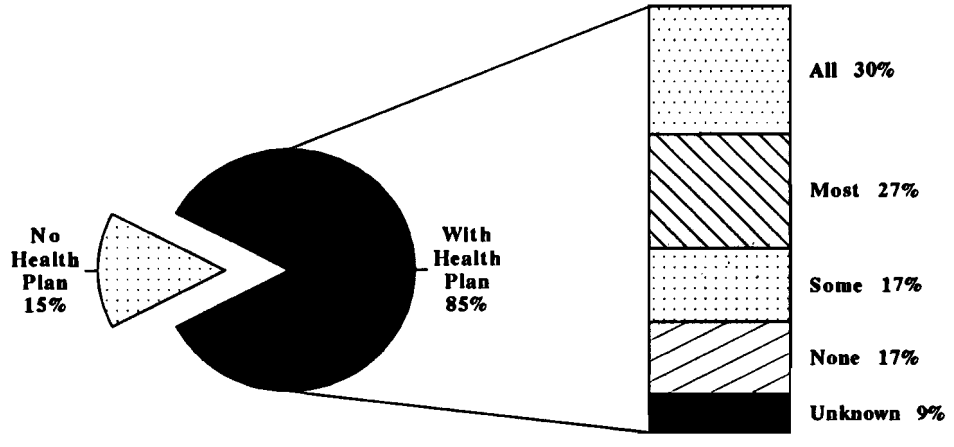
Health Care Coverage
for Doctor visits when sick



Doctor visits covered by
Health Care Plan
Denominator = 1294

Division of Public Health
Alaska BRFSS 1991, Weighted Data

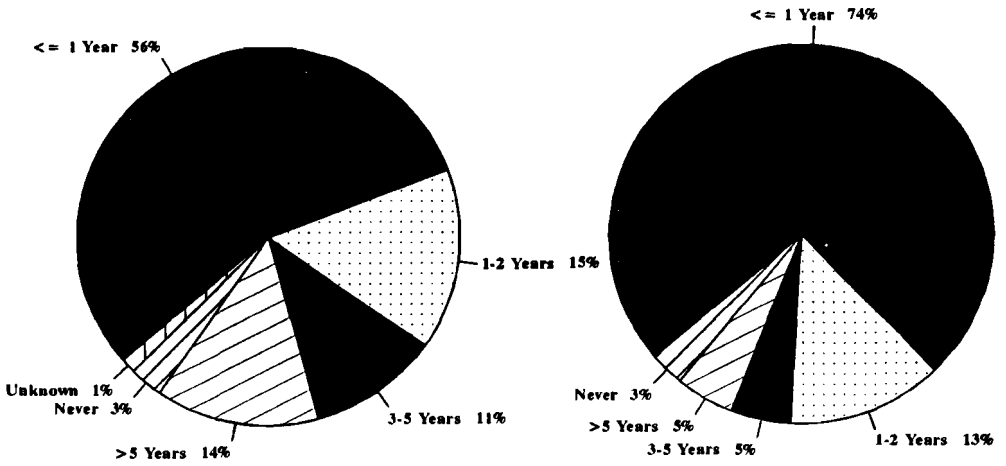
Health Care Coverage
for preventive services when not sick



Checkups covered by
Health Care Plan
Denominator = 1294

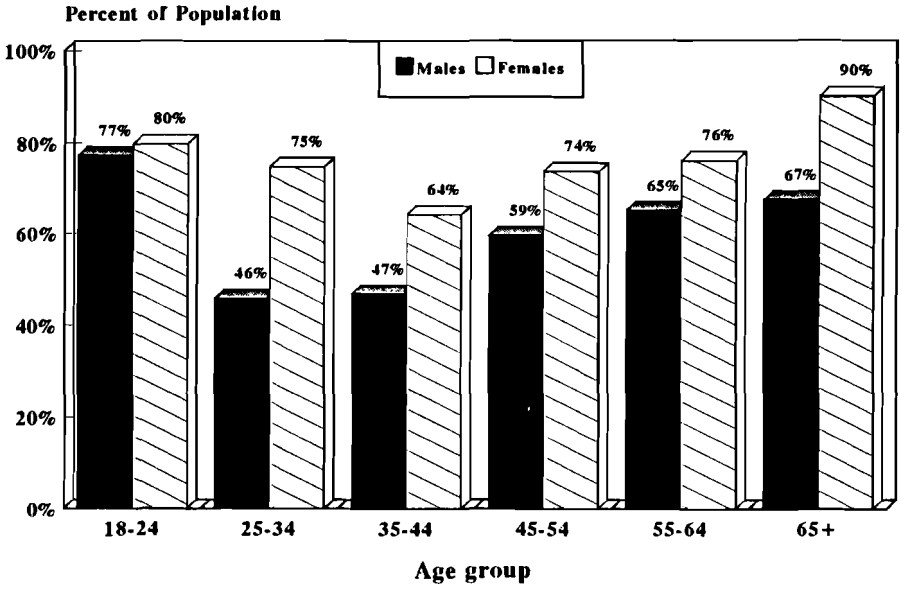
Division of Public Health
Alaska BRFSS 1991, Weighted Data

Years Since Last Routine Checkup by a Doctor, Alaska 1991



Division of Public Health
Alaska BRFSS 1991, Weighted Data

Routine Checkup by a Doctor Within the Past Year, Alaska 1991



Division of Public Health
Alaska BRFSS 1991, Weighted Data

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HEALTH SCREENINGS

CHOLESTEROL SCREENING

HEALTH RISK

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

Classification of Total Cholesterol Levels:

< 200 mg/dl	Desirable Blood Cholesterol
200 to 239 mg/dl	Borderline High Cholesterol
≥ 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 56.8% of Alaskan adults reported having had their blood cholesterol checked within the past five years. (National BRFSS Range 56.19 to 71.32%, National BRFSS Median 63.65%.) The percentage of Alaska Native/American Indian population that reported having their blood cholesterol checked within the past five years was 33% compared to 61% of the white population and 52% of other populations. It is estimated that 39% of Alaskan adults have never had their blood cholesterol checked.

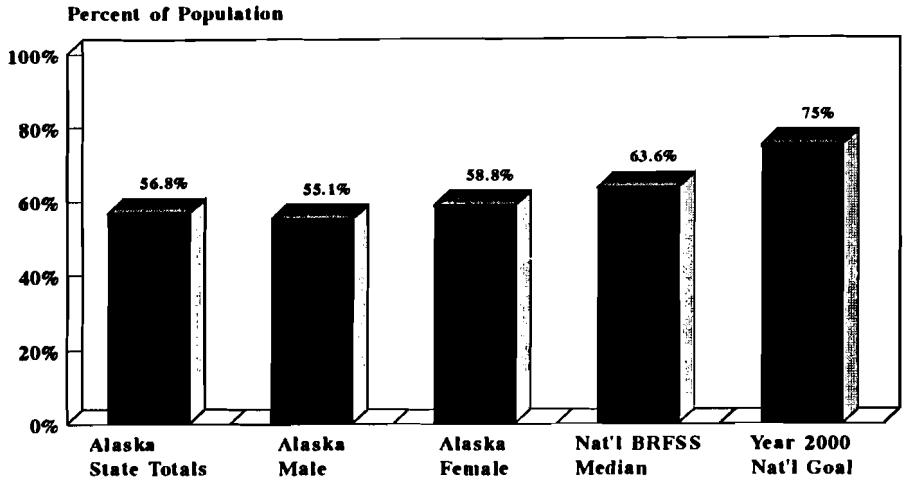
Of those persons that had ever had their blood cholesterol checked, 30.6% reported having been told their blood cholesterol was high. Of those that had ever had their cholesterol checked, 80.7% report being told their blood cholesterol level (in numbers) and 44.3% were aware of their blood cholesterol level.

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)

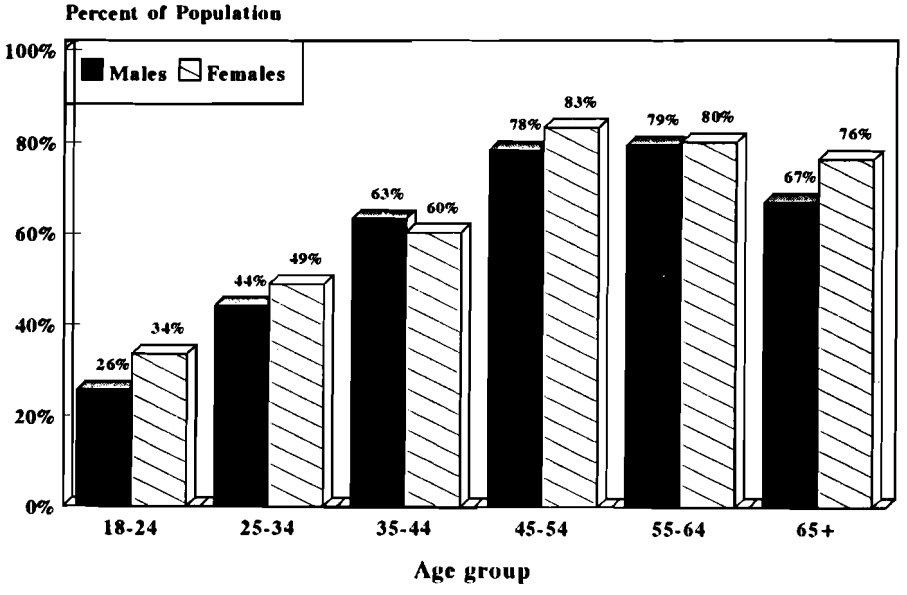
Comparison of Prevalence of Cholesterol Screening*, 1991



National BRFSS Range 56.19 - 71.32%
National BRFSS Median 63.65%

Division of Public Health
Alaska BRFSS 1991, Weighted Data
*checked within last 5 years.

Prevalence of Cholesterol Screening*, Alaska 1991



Division of Public Health
Alaska BRFSS 1991, Weighted Data
*checked within last 5 years

Table 12

Weighted Prevalence of Cholesterol Screening

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents screened. Total sample size = 1534.*

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

Gender	N	%	Race	N	%
Male	400	55.1	White	717	61
Female	483	58.8	Alaska Native/ American Indian	119	33
			Other	46	52
Age	**N**	**%**	**Marital Status**	**N**	**%**
18-24	34	30	Married	569	62
25-34	194	46	Divorced	109	57
35-44	274	62	Widowed	53	66
45-54	176	80	Separated	25	**
55-64	113	80	Never Married	100	40
65+	85	71	Unmarried Couple	26	38
Unknown/Refused	7	**	Unknown/Refused	1	**
Education	**N**	**%**	**Income**	**N**	**%**
Less Than 9th Grade	40	38	Less Than $10,000	49	42
Some High School	51	38	$10,000-$14,999	63	47
High School Graduate	263	48	$15,000-$19,999	47	44
Some Technical School	10	**	$20,000-$24,999	51	49
Technical School Graduate	12	**	$25,000-$34,999	112	57
Some College	231	59	$35,000-$50,000	184	59
College Graduate	162	69	Over $50,000	303	65
Post Graduate	113	85	Unknown/Refused	74	61
Unknown/Refused	1	**			

	N	%
TOTAL	883	56.8

95% Confidence Interval (53.2 to 60.5%)

* = Cholesterol checked within the past five years.

** = Not Reported

BLOOD PRESSURE SCREENING

HEALTH RISK IMPLICATIONS

People with high blood pressure (hypertension) have three to four times the risk of developing coronary heart disease and as much as seven times the risk of a stroke as do those with normal blood pressures. Clinical trials show that blood pressure reduction significantly reduces stroke mortality. Recent long-term follow-up of the Hypertension Detection and Follow-up Program clinical trial suggests that blood pressure control can also help to reduce deaths from coronary heart disease.

Approximately 30% of adults have high blood pressure (blood pressure equal to or greater than 140mm Hg systolic and/or 90mm diastolic and/or taking antihypertensive medication).

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 94% of Alaskan adults have had their blood pressure checked by a health professional within the past two years. (National BRFSS Range 92.30 to 97.29%, National BRFSS Median 94.43%.) Of Alaskan females, 96.4% have had their blood pressure checked within the past two years and 91.9% of Alaskan males have had their blood pressure checked within the past two years. Blood pressure screening (within the past two years) is prevalent among all population groups; 95% among whites, 92% among Alaska Native/American Indian and 91% among other populations combined.

Among Alaskan adults, 87.4% report having had their blood pressure checked within the past year. More Alaskan females (91.5%) have had their blood pressure checked within the last year than males (83.7%).

YEAR 2000 NATIONAL HEALTH OBJECTIVES

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 13

Blood Pressure Screening

By Selected Demographics, Alaska BRFSS 1991

N = Number of respondents screened. Total sample size = 1534.*

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

Gender	N	%
Male	683	91.9
Female	741	96.4

Race	N	%
White	1052	95
Alaska Native/ American Indian	293	92
Other	76	90
Unknown/Refused	3	**

Age	N	%
18-24	120	96
25-34	402	93
35-44	430	94
45-54	211	95
55-64	138	92
65+	115	94
Unknown/Refused	8	**

Marital Status	N	%
Married	871	94
Divorced	171	93
Widowed	71	88
Separated	36	**
Never Married	221	94
Unmarried Couple	53	94
Unknown/Refused	1	**

Education	N	%
Less Than 9th Grade	81	89
Some High School	97	85
High School Graduate	498	95
Some Technical School	14	**
Technical School Graduate	19	**
Some College	370	95
College Graduate	214	94
Post Graduate	130	98
Unknown/Refused	1	**

Income	N	%
Less Than $10,000	115	92
$10,000-$14,999	114	96
$15,000-$19,999	97	91
$20,000-$24,999	102	94
$25,000-$34,999	184	96
$35,000-$50,000	282	94
Over $50,000	421	95
Unknown/Refused	109	91

	N	%
TOTAL	1424	94.0%
95% Confidence Interval		(92.3 - 95.6)

* = Persons who have had their blood pressure checked within the past two years.
** = Not Reported

CANCER SCREENING

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. Research indicates that mortality due to breast cancer can be reduced by 30% among women aged 50 and older through the use of mammography and clinical breast examination.

The American Cancer Society and the National Cancer Institute recommend monthly breast self-examination and regular clinical breast examination for all women; a baseline mammogram for women between ages 35 and 40; mammography every one to two years for women aged 40 through 49; and annual mammography for women aged 50 and older.

BREAST CANCER SCREENING IN ALASKA

Clinical Breast Exams: A clinical breast exam is when the breast is felt for lumps by a doctor or other medical professional. In 1991, 92.1% of women age 18 and older had ever had a clinical breast exam. Of those women who had ever had a breast exam, 78.8% had had one within the past year and an additional 10.9% had had one in the previous year. Most (94.4%) of the women who had ever had a breast exam, reported their last breast exam was done as part of a routine checkup and 4.9% reported it was done because of a breast problem.

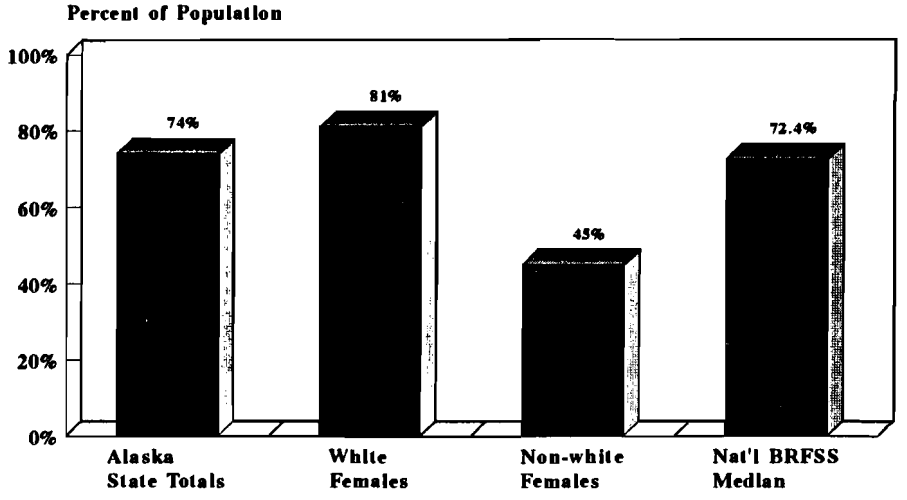
Mammography: A mammogram is an x-ray of the breast to look for cancer. In 1991, 74% of women aged 40 and older had ever had a mammogram. (National BRFSS Range 60.47 to 84.14%, National BRFSS Median 72.4%.) Among white (non-hispanic) women aged 40 and older, 81% had ever had a mammogram, while among non-white women 40 and older, 45% had ever had a mammogram.

In 1991, 73% of women 40 and older, had ever had both a mammogram and a breast exam (compared to the national goal of 80%). Of the women 50 and older, 61% had had a mammogram and a breast exam in the past two years (compared to the national goal of 60%).

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)

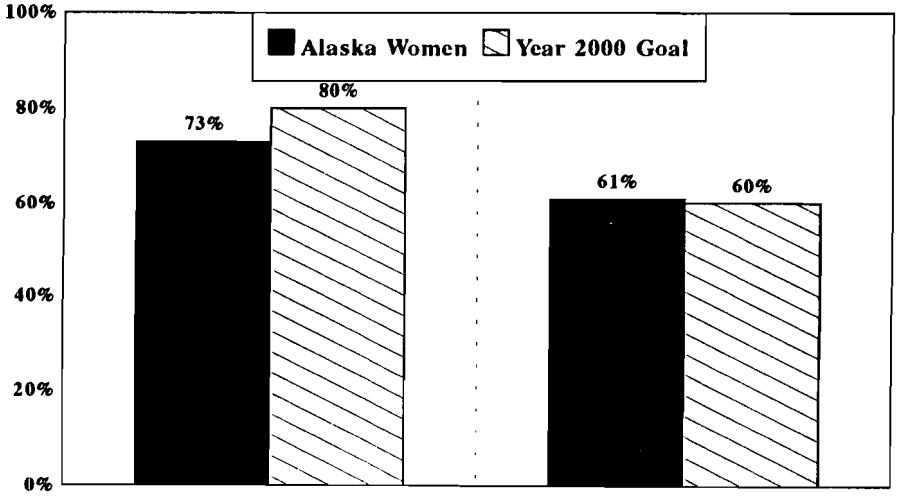
Comparison of Prevalence of Mammography Screening*, 1991



National BRFSS Range 60.47 - 84.14%
National BRFSS Median 72.40%

Division of Public Health
Alaska BRFSS 1991, Weighted Data
*Women over 40 ever had a mammogram

Mammography & Breast Exams Alaska Women, 1991



Division of Public Health
Alaska BRFSS 1991, Weighted Data

CERVICAL CANCER SCREENING

HEALTH RISK

Cervical cancer now kills an estimated 4,400 women annually in the United States, and about 13,500 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.

For people without symptoms, the American Cancer Society recommends that all women who are, or have been sexually active, or have reached the age of 18 years, have an annual pap test and pelvic exam. (After a woman has had three or more consecutive satisfactory normal annual exams, the pap test may be performed less frequently at the discretion of her physician.)

CERVICAL CANCER SCREENING IN ALASKA

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

Of Alaskan females age 18 and older (with intact cervix-uteri), 93% have ever had a pap test. (National BRFSS Range 86.76 to 95.29%, National BRFSS Median 92.44%.) According to the BRFFS definition, 82.9% of females 18 and older (with intact cervix-uteri) have had a pap test within the past two years. (National BRFSS Range 73.67 to 87.51%, National BRFSS Median 79.72%.) Of the women surveyed, 15.7% had had a hysterectomy.

Of the women age 18 and older who had ever had a pap test, 75% were in the last year, 11.3% in the last one to two years, 8% within the past three to five years and 4.4% were over 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)

AIDS AWARENESS

HIV/AIDS

An estimated one million people in the United States are presently infected with HIV (human immunodeficiency virus); and approximately 40,000 are infected yearly in recent years. HIV and AIDS (acquired immunodeficiency syndrome) are a growing threat to the health of the nation and will continue to make major demands on health and social service systems for many decades.

In Alaska, 50,349 individuals have been tested for HIV antibodies through facilities that use the State Virology Laboratory, as of December 31, 1992. Of these, 457 persons tested positive for HIV antibodies. Through December 1992, 138 Alaskan residents have been confirmed to have AIDS. Of these 90 are known to have died.

AIDS information and education programs have increased public knowledge and influenced attitudes about HIV and AIDS. However, some misinformation about transmission of HIV still persists at all levels of society. An important step toward reducing the spread of HIV behaviors is for people to be able to use information about how HIV is transmitted to assess their own risk of becoming infected. When people can recognize their risks, they can learn ways to change their behavior and reduce their risk.

BEHAVIORAL RISK FACTOR SURVEY

Most Alaskan adults (93.5%) have heard the AIDS virus called HIV and most (78.7%) think that a person with the AIDS virus can look and feel healthy. Many people (43.2%) think that you can get AIDS from donating blood and many (68.2%) believe that you can get it from a health care worker. Many people (50.3%) know that there are drugs available that can lengthen the life of a person with AIDS and the majority (88.7%) think that a pregnant woman who has the AIDS virus can give it to her baby.

The majority of adults (70.4%) would be willing to work with a person who has AIDS but many (59%) would not eat in a restaurant if the cook had AIDS. The majority of parents (88.4%) thought that AIDS education should begin in school in Kindergarten to sixth grade and 70.9% would allow their child to be in the same classroom as a child with the AIDS virus. Among Alaskan adults, over half (53.6%) believe that a condom is somewhat effective in preventing getting the AIDS virus through sexual activity and nearly all of the persons surveyed knew of a place to go to be tested for the AIDS virus (see following pages).

ALASKAN BELIEFS AND OPINIONS ABOUT AIDS

Have you ever heard the AIDS virus called by the name HIV?

93.5% Yes (National BRFSS Range 85.4 to 96.2%, National Median 91.7%.)
5.3% No
1.2% Don't Know/Refused

To your knowledge are there drugs available that can lengthen the life of a person infected with the AIDS virus?

50.3% Yes (National BRFSS Range 32.2 to 59.3%, National Median 50.3%.)
30.2% No
19.5% Don't Know/Refused

Do you think a person who is infected with the AIDS virus can look and feel well and healthy?

78.7% Yes (National BRFSS Range 62.6 to 79.2%, National Median 71.8%.)
9.9% No
11.4% Don't Know/Refused

Do you think a person can get infected with the AIDS or the AIDS virus from donating blood?

43.2% Yes (National BRFSS Range 19.8 to 47.8%, National Median 38.9%.)
49.2% No
7.6% Don't Know/Refused

Do you think a person can get infected with AIDS or the AIDS virus from being cared for by a nurse, doctor, dentist, and other health care worker who has the AIDS virus?

68.2% Yes (National BRFSS Range 54.0 to 72.9%, National Median 67%.)
18.6% No
13.3% Don't Know/Refused

Do you think a pregnant women who has the AIDS virus can give it to her baby?

88.7% Yes (National BRFSS Range 54.0 to 74.8%, National Median 89.8%.)
1.1% No
10.2% Don't Know/Refused

Would you allow your child to be in the same classroom with a child who is infected with the AIDS virus? (Of respondents who had a child or children in kindergarten through eighth grade.)

70.9% Yes (National BRFSS Range 59.7 to 86.6%, National Median 73.1%.)
12.5% No
16.6% Don't Know/Refused

At what grade do you think your child should begin AIDS education in school? (Of respondents who had a child or children in kindergarten through eighth grade.)

Mean grade for Alaska - grade 2.76 (National BRFSS Median - grade 3.)

Would you eat in a restaurant where the cook is infected with the AIDS virus?

28.2% Yes (National BRFSS Range 13.0 to 32.4%, National Median 22.9%.)
59.0% No
12.8% Don't Know/Refused

Would you be willing to work with a person who is infected with the AIDS virus?

70.4% Yes (National BRFSS Range 57.6 to 78.6%, National Median 66.8%.)
16.2% No
13.4% Don't Know/Refused

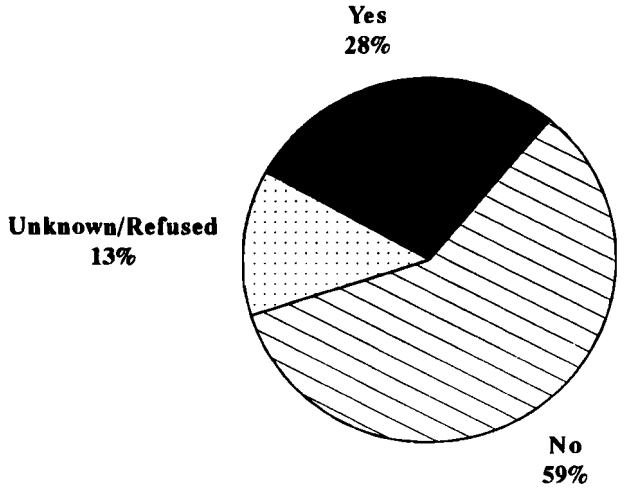
How effective do you think using a condom is in preventing getting the AIDS virus through sexual activity?

30.8% Very effective (National BRFSS Range 17.3 to 91.4%, National Median 27.2%.)
53.6% Somewhat effective
6.1% Not at all effective
7.1% Did not know how effective

Where can you be tested for the AIDS virus?

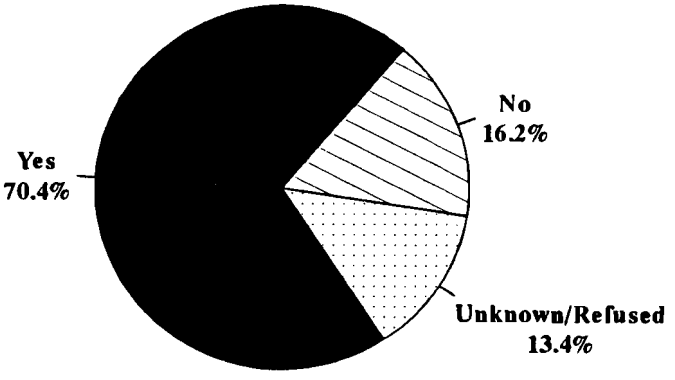
Private Doctor	30.2%	STD Clinic	0.8%
Blood Bank	0.9%	Community Clinic	17.1%
Health Department	6.3%	Company Clinic	0.5%
AIDS Clinic	0.5%	Military Exam	3.7%
Hospital or ER	32.1%	Other	0.4%
Family Planning Clinic	0.7%	No Place	0.2%
		Unknown/Refused	6.7%

Would you eat in a restaurant where the cook is infected with AIDS?



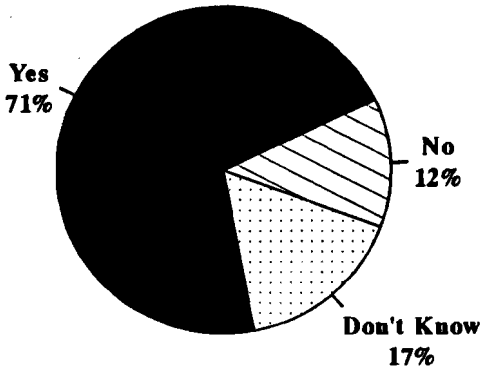
Division of Public Health
Alaska BRFSS 1991, Weighted Data

Would you be willing to work with a person infected with AIDS?



Division of Public Health
Alaska BRFSS 1991, Weighted Data

Would you allow your child to be in the same classroom with a child infected with the AIDS virus?



Division of Public Health
Alaska BRFSS 1991, Weighted Data
Denominator is persons w/child(ren) in K-8 grade (536)

What grade do you think your child should begin AIDS education in school?

Kindergarten	26.5%
1st - 3rd Grade	33.8%
4th - 6th Grade	28.1%
7th - 9th Grade	5.9%
10 - 12th Grade	0.3%
Don't Know/Refused	4.1%
Never	1.3%

Division of Public Health
Alaska BRFSS 1991, Weighted Data
Denominator is persons w/child(ren) in K-8th grade (536)

INJURY CONTROL AND CHILD SAFETY

INJURY CONTROL AND CHILD SAFETY

During the first four decades of life, unintentional injuries claim more lives than infectious or chronic diseases. In 1987, 2.3 million years of life were prematurely taken by unintentional injuries, more than from any other cause. Nationally, American Indians and Alaska Natives have disproportionately higher death rates from motor vehicle crashes, residential fires, and drowning.

Unintentional injuries were the third leading cause of death in Alaska in 1991. During 1980 to 1985 Alaska children aged 0 to 14 years died from injuries at the highest rate in the nation.

BEHAVIORAL RISK FACTOR SURVEY

Is there a working smoke detector in your household?

Yes 91.9% No 6.6% Unknown 1.5%

In the past 12 months have you used a thermometer to test the temperature of the hot water?

Yes 8.9% No 88.8% Unknown 2.4%

Of the people surveyed, 45.9% had no children living in the household, 25.7% had children under the age of four, 16% had children between five and ten years old and 11.6% had children over ten years old. The following questions were asked of those persons who had children ages ten and younger living in the household (denominator = 622):

Do you have the telephone number for the poison control center in your area?

Yes 74.9% No 23.2% Unknown 1.9%

Do you now have any ipecac syrup in your household?

Yes 37.1% No 59.5% Unknown 3.3%

When riding in a car, how often is the youngest child buckled in a car safety seat or seat belt?

All the time 83.0%
Most of time 9.2%
Sometimes 3.4%
Rarely 1.2%
Never 2.2%

APPENDICES

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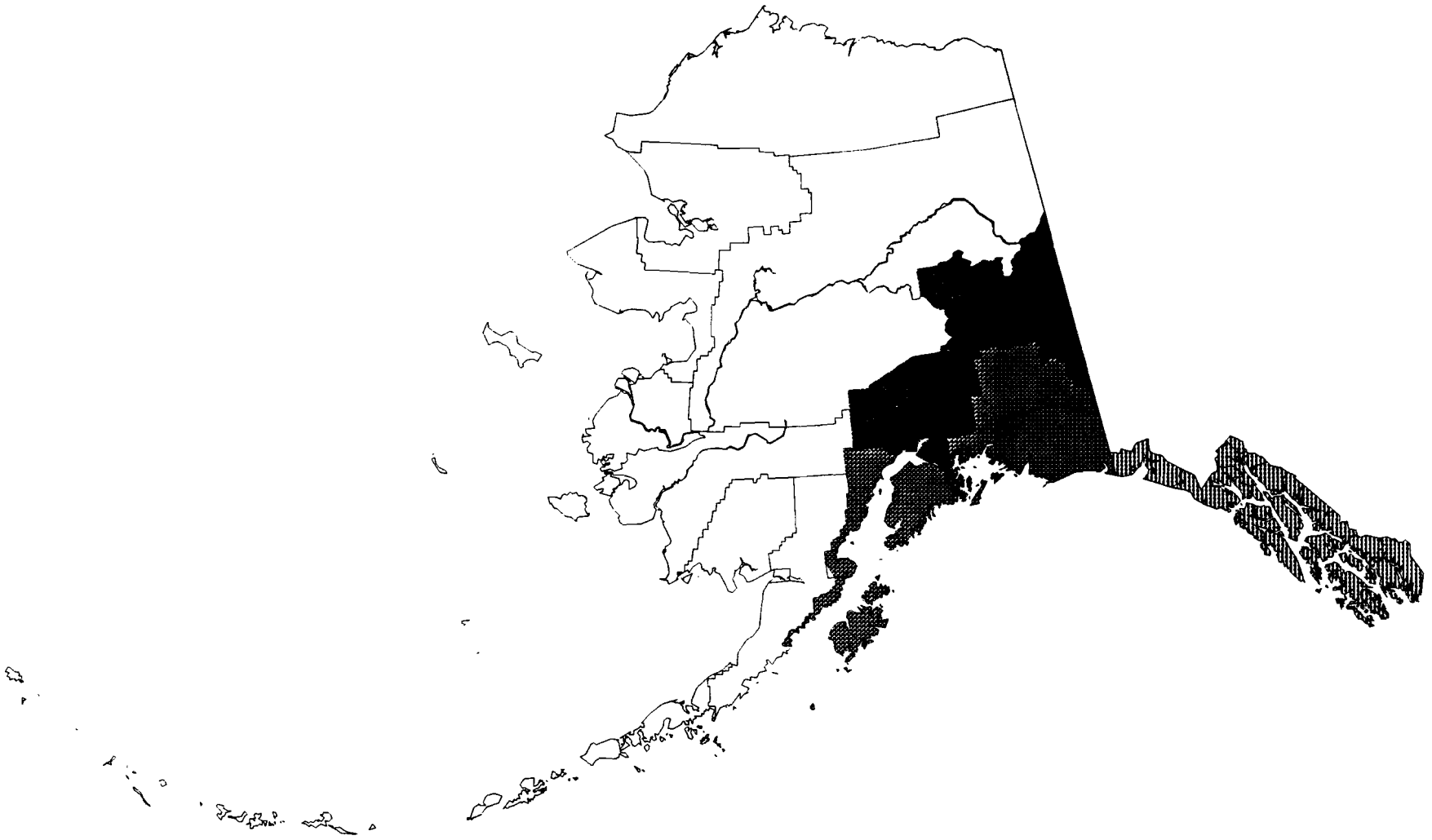
APPENDIX A: BRFSS DEFINITIONS

SEAT BELT(2)	Respondents reporting they "sometimes", "seldom" or "never" use seat belts.
SEAT BELT(3)	Respondents reporting they "nearly always", "sometimes", "seldom", or "never" use seat belts (i.e., do not always use a seat belt).
HYPERTENSION	Respondents who report they have had their blood pressure checked within the past two years.
HYPERTENSION(2)	Respondents who report they have ever been told they are hypertensive.
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.
CIGARETTE SMOKING	Current regular smoker (ever smoked 100 cigarettes and smoke regularly now).
ACUTE 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.
SEDENTARY LIFESTYLE	Respondents who report no activity or a physical activity or pair of activities that were done for 20 minutes or less, or fewer than three times per week.
CHOLESTEROL	Respondents who report they have had their blood cholesterol checked within the past five years.
MAMMOGRAM	Females 40 and older who report they ever had a mammogram.
PAP SMEAR	Females with intact cervix-uteri who report they have had a pap smear within the past two years.

APPENDIX B-1: BRFSS SAMPLING REGIONS



APPENDIX B-2: ALASKA BRFSS SAMPLE DESIGN*

	Total Pop.	White	AK Native/ Am. Indian	Other	18 +
Strata 1 URBAN					
Anchorage Borough	226,338	185,601	14,780	25,957	159,361
Fairbanks-Northstar	77,720	64,672	5,383	7,665	53,313
Matanuska-Susitna	39,683	37,114	1,952	617	25,631
Southeast Fairbanks	5,913	4,734	798	381	3,798
TOTAL	**349,654**	**292,121**	**22,913**	**34,620**	**242,103**
Strata 2 GULF COAST					
Kenai Peninsula	40,802	37,220	2,942	640	27,370
Kodiak Island	13,309	9,467	2,162	1,680	9,153
Valdez Cordova	9,952	8,298	1,266	388	7,051
TOTAL	**64,063**	**54,985**	**6,370**	**2,708**	**43,574**
Strata 3 SOUTHEAST					
Haines Borough	2,117	1,817	282	18	1,525
Juneau Borough	26,751	21,765	3,509	1,477	18,889
Ketchikan Gateway	13,828	11,363	1,913	552	9,693
Prince of Wales	6,278	3,872	2,368	38	4,241
Sitka	8,588	6,406	1,805	377	5,955
Skagway, Yakutat, Angoon	4,385	2,662	1,681	42	2,947
Wrangell, Petersburg	7,042	5,565	1,370	107	4,853
TOTAL	**68,989**	**53,450**	**12,928**	**2,611**	**48,103**
Strata 4 BUSH					
Aleutians East	2,464	909	1,052	503	1,911
Aleutian Islands	9,478	6,661	1,101	1,716	7,588
Bethel Census	13,656	2,122	11,379	155	8,325
Bristol Bay Borough	1,410	905	455	50	1,030
Dillingham	4,012	1,035	2,938	39	2,508
Lake & Peninsula Borough	1,668	392	1,263	13	1,036
Nome	8,288	2,064	6,157	67	5,119
North Slope Borough	5,979	1,307	4,344	328	3,734
Northwest Arctic	6,113	842	5,211	60	3,471
Wade Hampton	5,791	349	5,407	35	3,151
Yukon-Koyukuk	8,478	3,603	4,734	141	5,520
TOTAL	**67,337**	**20,189**	**44,041**	**3,107**	**43,393**
STATEWIDE TOTAL	**550,043**	**420,745**	**86,252**	**43,046**	**377,173**

* April 1990 MARS data, Alaska Department of Labor, Research and Analysis Section, Demographic Unit

APPENDIX C: ALASKA BRFSS STRATA DESCRIPTION*

Age	Total Pop.	Male	Female	White	Native	Other
Strata 1 URBAN						
18-24	37,553	20,504	17,049	30,096	2,924	4,533
25-34	74,028	37,576	36,452	61,696	4,562	7,770
35-44	66,005	34,745	31,260	57,292	3,228	5,485
45-54	33,765	18,081	15,684	29,659	1,777	2,329
55-64	18,031	9,402	8,629	15,731	1,001	1,299
65+	12,721	5,816	6,905	10,972	713	1,036
TOTAL	**242,103**	**126,124**	**115,979**	**205,446**	**14,205**	**22,452**
Strata 2 GULF COAST						
18-24	5,335	2,979	2,356	4,401	675	259
25-34	12,328	6,607	5,721	10,635	1,148	545
35-44	12,866	7,081	5,785	11,416	937	513
45-54	6,427	3,617	2,810	5,630	555	242
55-64	3,745	2,079	1,666	3,196	389	160
65+	2,873	1,462	1,411	2,416	348	109
TOTAL	**43,574**	**23,825**	**19,749**	**37,694**	**4,052**	**1,828**
Strata 3 SOUTHEAST						
18-24	5,703	3,045	2,658	4,065	1,430	208
25-34	13,178	6,824	6,354	10,400	2,233	545
35-44	13,584	7,226	6,358	11,442	1,706	436
45-54	7,660	4,272	3,388	6,377	1,074	209
55-64	4,107	2,212	1,895	3,200	740	167
65+	3,871	1,801	2,070	3,017	689	165
TOTAL	**48,103**	**25,380**	**22,723**	**38,501**	**7,872**	**1,730**
Strata 4 BUSH						
18-24	8,048	4,742	3,306	2,685	4,711	652
25-34	13,982	8,174	5,808	5,320	7,661	1,001
35-44	9,993	5,976	4,017	4,422	5,005	566
45-54	5,392	3,124	2,268	2,151	3,033	208
55-64	3,348	1,889	1,459	849	2,383	116
65+	2,630	1,339	1,291	276	2,332	22
TOTAL	**43,393**	**25,244**	**18,149**	**15,703**	**25,125**	**2,565**

* April 1990 MARS data, Alaska Department of Labor, Research and Analysis Section, Demographic Unit.

APPENDIX D: ALASKA BRFSS SURVEY POPULATION by Age and Gender

Age	Male	Female	Total
Strata 1 URBAN			
18-24	20	20	40
25-34	50	59	109
35-44	62	62	124
45-54	23	25	48
55-64	17	18	35
65+	11	15	26
Unknown		3	3
TOTAL	**183**	**202**	**385**
Strata 2 GULF COAST			
18-24	14	16	30
25-34	51	56	107
35-44	55	57	112
45-54	37	28	65
55-64	16	21	37
65+	12	17	29
Unknown	1	1	2
TOTAL	**186**	**196**	**382**
Strata 3 SOUTHEAST			
18-24	15	10	25
25-34	43	58	101
35-44	59	66	125
45-54	36	23	59
55-64	16	21	37
65+	11	24	35
Unknown	1		1
TOTAL	**181**	**202**	**383**
Strata 4 BUSH			
18-24	13	18	31
25-34	62	50	112
35-44	56	47	103
45-54	29	30	59
55-64	24	20	44
65+	21	12	33
Unknown	1	1	2
TOTAL	**206**	**178**	**384**

APPENDIX E: ALASKA BRFSS SURVEY POPULATION by Race

Age	White	Native	Other	Unknown	Total
Strata 1 URBAN					
18-24	33	3	4		40
25-34	87	5	16	1	109
35-44	107	4	13		124
45-54	45	2	1		48
55-64	31	1	3		35
65+	25	0	1		26
Unknown	2			1	3
TOTAL	**330**	**15**	**38**	**2**	**385**
Strata 2 GULF COAST					
18-24	25	5	0		30
25-34	94	8	5		107
35-44	102	4	6		112
45-54	54	8	3		65
55-64	35	1	1		37
65+	25	4	0		29
Unknown	2				2
TOTAL	**337**	**30**	**15**		**382**
Strata 3 SOUTHEAST					
18-24	18	5	2		25
25-34	81	13	6	1	101
35-44	108	16	4		125
45-54	50	5	4		59
55-64	27	7	3		37
65+	29	4	2		35
Unknown	1				1
TOTAL	**314**	**50**	**18**	**1**	**383**
Strata 4 BUSH					
18-24	4	24	3		31
25-34	36	72	4		112
35-44	52	50	1		103
45-54	28	28	3		59
55-64	17	26	1		44
65+	7	26	0		33
Unknown		2			2
TOTAL	**144**	**228**	**12**		**384**

APPENDIX F: TELEPHONE COVERAGE IN ALASKA*

	Occupied Housing	# with Phones	% Total
Strata 1 URBAN			
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**
Strata 2 GULF COAST			
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**
Strata 3 SOUTHEAST			
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**
Strata 4 BUSH			
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 & 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**

* 1990 Census Data, STF2

APPENDIX G: AK 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; 1) for large telephone exchanges and 2) 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 1) unlisted as well as listed numbers are included in the sample, 2) with good information from the telephone utilities, it means many non-working and business numbers can be filtered out; and 3) 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, all residential numbers listed in each small exchange are entered. Some of these small exchanges cannot be entered because some are included in with Anchorage exchanges. Therefore, even though they are quite small, they are in the randomly generated sample (and suffer a high rate on non-working numbers).

The disadvantage of using entered numbers is that households with unlisted numbers are missed. Experience has shown, however, that as telephone access spread in the bush during the seventies and eighties, less rural than urban households chose to have their numbers unlisted.

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 H: 1991 BRFSS RESPONSE RATES

INDICATOR	BRFSS OBJECTIVE	BRFSS MEDIAN	ALASKA ACHIEVED
CASRO RESPONSE RATE	$\geq$ 75	70.9	77.5
UPPER BOUND RATE	$\geq$ 90	84.1	89.2
% REFUSALS	$\leq$ 10	6.7	4.1

RESPONSE RATES:

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

CASRO RESPONSE RATE: The response rate developed by the Council of American Survey Research Organizations (CASRO), apportions dispositions with unknown eligibility status (ring no answer and busy) to dispositions representing eligible respondents in the same proportion 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 I: WEIGHTING

As used here, unweighted data are the actual responses of each respondent. By weighting the data, the responses of persons in various subgroups are adjusted to compensate for the overrepresentation 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 demographic distribution of the sample.

The first two factors address the problem of unequal selection probability, which could result in a biased sample—one 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.

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 factor is then multiplied by the raw weight to compute an adjusted, or final-weight, variable.

This procedure is repeated for each of four regions of Alaska. Since data is collected as a stratified sample, i.e. stratified per region of the state, weights are computed based on the sample and population distribution of each region. 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 1991, survey results were weighted using 1990 Census data for Alaska from the U.S. Census Bureau, Population Division, Estimates Branch; Alaska Department of Labor, Research and Analysis, Demographic Unit.

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