1998 ARIZONA BEHAVIORAL RISK FACTOR SURVEY ANNUAL REPORT

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BEHAVIORAL RISK FACTOR SURVEY (BRFS)
1998 ANNUAL REPORT

ARIZONA DEPARTMENT OF HEALTH SERVICES
BUREAU OF EPIDEMIOLOGY AND DISEASE CONTROL SERVICES

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EXECUTIVE SUMMARY

This report examines specific high-risk behaviors and chronic diseases in Arizona for 1998. The Annual Survey Results portion contains information on high-risk behaviors and chronic diseases that are surveyed each year. The Module Survey Results portion contains information on high-risk behaviors and chronic diseases that may or may not be surveyed each year. The State Added Questions Survey Results portion contains information on high-risk behaviors whose addition was suggested through the Arizona Department of Health Services that may or may not be surveyed each year. The Behavioral Risk Factors Survey (BRFS) program is a valuable rich source of unique state level public health data which have become an integral part of overall health promotion and disease prevention/intervention planning throughout Arizona.

Highlights of the 1998 Behavioral Risk Factors Survey:

- 13.1% of the adult population had no health care coverage or insurance, the second consecutive decrease after peaking at 16.9% in 1995.
- 2.8% of respondents reported that they were told they have diabetes, the third consecutive decrease after peaking at 4.8% in 1995.
- 51.3% of Arizona adults reported no leisure-time physical activity in the past month was, a increase of more than 12.7% from 1997.
- Smoking prevalence among adult Arizona residents increased slightly from 21.0% in 1997 to 21.8% in 1998.
- 90.9% of the adult population reported that they consume less than 5 servings of fruits/vegetables per day, an increase from 82.8% in 1997. This is the second consecutive annual increase.
- 21.6% of Arizona adults had a body mass index that classified them as overweight, a decrease from 24.8% in 1997.
- 78.8% of female respondents 40 years of age or older reported that they have had at least one mammogram, no significant change from 78.6% in 1997.
- 65.0% of the adult population under 65 years of age reported that they have not been tested for HIV.
- 64.1% of respondents reported that they have had a dental visit in the past year.
- 94.0% of adults reported that they “always” use a safety belt when traveling in a vehicle.
- 48.5% of parents reported that their oldest child “never” wears a bicycle helmet when riding a bicycle.
- 56.2% of respondents reported testing their smoke detectors in the past six months.
- 86.2% of persons reported they have not been told by a doctor that they have arthritis.
- 91.1% of Arizona adults reported they are not limited in any way in any activities due to an impairment or health problem.
- 20.3% respondents correctly responded that folic acid prevents birth defects.
- 83.5% of persons reported they have not heard of the program “Five A Day for Better Health”.

- 77.7% of male respondents 50 years of age or older reported that they have had a PSA blood test.

Table I: 1998 Behavioral Risk Factor Survey: Risk Factor/Chronic Disease Prevalence, Percentage Within Demographic Groups

GROUPS	Risk Factor (Prevalence)								
	No Health Care Coverage	Diabetes	No Leisure-time Activity	Current Smoker	< 5-A-Day Fruits/ Vegetables	Overweight (BMI)	* No Mammography	**Not HIV Tested	Dental Visit
Sex									
Male	13.2	2.7	52.3	24.6	92.3	22.5	-	65.0	35.4
Female	13.0	2.9	50.4	19.2	89.6	20.7	18.0	65.0	35.1
Age									
18 - 24	28.4	-	37.5	10.7	89.8	13.0	-	64.4	43.3
25 - 34	18.6		51.6	25.5	94.3	20.3	-	47.8	48.6
35 - 44	16.4	2.7	57.8	28.1	94.2	27.6	48.8	61.1	34.7
45 - 54	6.4	4.2	55.0	24.1	89.7	26.7	14.8	79.0	21.1
55 - 64	9.0	5.9	50.5	33.7	88.8	22.5	15.0	76.4	26.0
65+	1.9	5.1	49.7	9.1	86.6	17.2	9.4	-	34.0
Education									
Less Than High School	39.6	6.9	68.1	19.5	93.0	45.8	49.6	75.7	71.0
High School Graduate or GED	9.0	1.8	62.1	27.7	95.5	16.2	6.1	64.5	36.9
Some College or Tech School	10.4	3.0	44.1	21.4	88.1	19.0	13.3	60.9	23.1
College Grad	6.2	‡	20.9	9.1	81.8	19.5	27.4	63.6	20.9
Income									
< $15,000	27.6		69.6	25.7	97.4	20.6	27.2	45.8	74.3
$15 - $24,999	13.7		65.1	25.5	90.1	20.9	17.1	52.1	46.5
$25 - $49,999	5.2	3.3	55.0	25.0	92.3	19.5	6.8	69.0	23.4
$50 - $74,999	2.7	‡	21.8	14.5	70.1	12.0	21.7	75.0	11.0
$$75,000	0.0	‡	21.0	15.8	80.1	19.4	70.2	37.0	18.3
Unknown/Refused	18.8	5.9	46.4	18.7	92.8	25.4	21.1	72.0	37.3
Race									
White	6.7	1.9	48.1	22.8	89.9	15.8	12.6	63.7	28.8
Non-White	31.6	5.4	60.9	19.3	93.5	38.8	37.9	67.2	54.1
Ethnicity									
Hispanic	33.4	5.9	66.9	19.6	93.7	37.5	41.8	67.9	62.8
Non-Hispanic	7.9	2.0	47.4	22.3	90.2	17.6	13.0	63.9	28.3

***** Among women 40 years of age or older. ****** Among persons 18 - 64 years of age. ¤ > 1 year ago. M Respondents 18-44 years of age.

- = Not applicable ‡ Cell size < 8**.**

Table I (Cont.): 1998 Behavioral Risk Factor Survey: Risk Factor/Chronic Disease Prevalence, Percentage Within Demographic Groups

GROUPS	Risk Factor (Prevalence)							
	Safety Belt Non-Use	Bike Helmet - Child	¤ Smoke Detector	Arthritis	Limited Activities	MFolic Acid Awareness	Five A Day	PSA Blood Test
Sex								
Male	7.2	55.2	9.3	10.3	8.5	93.3	87.1	-
Female	5.0	50.2	8.6	15.2	8.6	85.1	80.1	6.8
Age								
18 - 24	12.5	36.4	11.9	‡	‡	85.0	67.1	-
25 - 34	6.1	56.7	11.1	2.4	6.4	74.6	90.1	-
35 - 44	5.1	51.0	8.6	7.7	6.3	81.1	88.0	-
45 - 54	5.9	61.3	10.7	12.1	8.2	-	88.9	33.8
55 - 64	4.2	50.3	9.0	22.7	11.5	-	75.2	39.3
65+	3.9	‡	3.6	32.9	16.0	-	82.9	26.9
Education								
Less Than High School	9.4	47.7	11.7	12.2	9.6	96.2	87.2	29.8
High School Graduate or GED	5.6	67.2	5.6	12.3	5.6	88.1	89.3	27.6
Some College or Tech School	6.6	39.8	11.7	14.1	11.6	89.9	80.5	19.3
College Grad	3.4	19.1	11.3	12.2	10.2	84.5	70.4	22.6
Income								
< $15,000	17.4	78.6	9.4	12.4	10.5	88.1	90.4	4.3
$15 - $24,999	8.5	60.8	9.7	12.7	8.0	78.2	89.4	10.2
$25 - $49,999	4.5	61.5	9.1	12.5	7.2	86.8	84.2	23.1
$50 - $74,999	6.2	14.4	14.6	14.2	9.1	86.6	79.7	3.9
$$75,000	‡	74.3	6.6	17.2	‡	84.6	80.0	1.4
Unknown/Refused	20.4	71.8	8.4	12.7	9.0	95.9	76.3	37.2
Race								
White	5.5	55.2	7.6	14.2	10.0	74.0	82.7	72.1
Non-White	7.4	47.4	13.2	9.0	3.9	90.2	86.1	27.9
Ethnicity								
Hispanic	8.3	48.4	10.2	8.7	3.0	88.7	92.3	27.0
Non-Hispanic	5.5	54.3	8.7	13.9	9.8	76.2	81.3	73.0

***** Among women 40 years of age or older. ****** Among persons 18 - 64 years of age. ¤ > 1 year ago. M Respondents 18-44 years of age.
- = Not applicable ‡ Cell size < 8**.**

RISK FACTORS/CHRONIC DISEASE TERM USAGE

Respondent Adult Arizona residents 18 years of age or older. In some cases various subset(s) of this group may be used.

Health Care Plan Respondents reporting that they do not have health care coverage.

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

No Leisure-Time Activity Respondents reporting that they did not participate in physical activity in the past month outside of normal work related activities.

Current Smoking Respondents reporting smoking 100 cigarettes during their lifetime and who smoke now (regularly and/or irregularly).

Fruits/Vegetables Respondents reporting that they consume less than five servings of fruits and vegetables daily.

Overweight The CDC defines obesity as: females with a BMI (Body Mass Index) $27.3 and males with a BMI $27.8 (BMI is weight in kilograms divided by height in meters squared (W/H^2).

Mammography Female respondents 40 years of age and older reporting that they have never had a mammogram.

HIV/AIDS Testing Respondents ages 18 to 64 years reporting that they have not been tested for HIV.

Dental Visit Respondents reporting they have not had a dental visit in the past year.

Safety Belt Non-Use Respondents reporting they "sometimes," "seldom," or "never" use safety belts.

Injury Control a) Respondents reporting that their oldest child "sometimes," "seldom," or "never" wears a bicycle helmet. b) Respondents reporting that they have not tested all of the smoke detectors in their home in the past six months.

Arthritis Respondents who report they were told by a doctor they have arthritis.

Limited Activities Respondents who report they are limited in any activities due to any impairment or health problems.

Folic Acid	Respondents ages 18 to 44 years reporting a reason other than preventing birth defects as the reason experts recommend that women take folic acid.
Five A Day	Respondents reporting they have not heard of the program "Five A Day for Better Health.
PSA Blood Test	Male respondents ages 50 years and over reporting that they have not had a PSA blood test.

INTRODUCTION

In 1998, the number of Arizona residents that died was 38,395. The 1998 Arizona death rate* of 517.2 per 100,000 persons was higher than the U.S. death rate* of 470.6 per 100,000 persons. The table below lists the top 10 causes of death of Arizona residents in 1998. The death rate for 6 out of 10 of these causes was higher in Arizona than the U.S. The 4 causes of death for which Arizona did not exceed U.S. death rates were heart disease, malignant neoplasms, diabetes, and infectious parasitic diseases.[1]

It is well known that much disease and injury morbidity and mortality is associated with high-risk behaviors. Behaviors which contribute significantly to disease and death include cigarette smoking, lack of physical activity and alcohol consumption.[2] Measurements of the prevalence of high risk behavior serves as an indicator for potential morbidity and mortality. This measurement provides information on the persons most likely to engage in this behavior.

Arizona has participated in the Behavioral Risk Factor Survey (BRFS) since 1982. Through a cooperative agreement with the Centers for Disease Control and Prevention (CDC), the Arizona Department of Health Services (ADHS) implemented BRFS as a method to collect data annually on health risk behaviors of adult residents, 18 years of age and older, excluding institutionalized persons. The purpose of the BRFS is to provide data that can be used to plan, implement and monitor health promotion and disease prevention efforts among Arizonans.

***** All death rates are age-adjusted; all cause mortality rates adjusted to the 1940 U.S. population.

1998 ARIZONA LEADING CAUSES OF DEATH

RANK	CAUSE OF DEATH	NUMBER OF DEATHS	AGE ADJUSTED MORTALITY RATE	PERCENTAGE OF TOTAL DEATHS
1	Heart Disease	10,276	125.8	26.8%
2	Malignant Neoplasms - Cancer	8,503	114.2	22.1%
3	Cerebrovascular Disease	2,414	41.8	6.3%
4	Chronic Obstructive Pulmonary Disease	2,395	21.0	6.2%
5	Unintentional Injury	2,182	20.8	5.7%
6	Influenza and Pneumonia	1,489	17.7	3.9%
7	Diabetes	1,006	17.0	2.6%
8	Suicide	845	13.5	2.2%
9	Infectious Parasitic Diseases	691	11.5	1.8%
10	Alzheimer's Disease	496	10.5	1.3%

References

1. Mrela C. Arizona Health Status and Vital Statistics. Office of Health Planning, Evaluation and Statistics. Arizona Department of Health Services, 1998.
2. Centers for Disease Control and Prevention. CDC Surveillance Summaries, December 27, 1996. MMWR 1996; 45 (No. SS-6).

METHODOLOGY

A. SAMPLING DESIGN

The Arizona BRFS is a random sample telephone survey. Using the Disproportionate Stratified Sampling version of random digit dialing and Computer Assisted Telephone Interviewing (CATI) system, the survey has the potential of representing 93% of all households in Arizona (i.e., those that have telephones according to U.S. West Communications data). A cluster size of three was used for maximum efficiency and minimum loss of precision. A sample size of 1,908 interviews over a 12-month period was selected to achieve an acceptable 95% confidence interval of ±3% on risk factor prevalence estimates of the adult population. This means that the estimated prevalence of any risk factor from the survey represents the total population of Arizona residents very well. Prevalence estimates of individual demographic variables, containing smaller sample sizes, do not achieve the same level of accuracy as the total sample.

Interviewers, employed by ADHS, contacted the residences during weekdays between 9:00 a.m. and 9:00 p.m. and Saturdays between 8:30 a.m. and 4:00 p.m. After a residence had been contacted, one adult (18 years of age or older) was selected from all adults residing in the household to be interviewed. Interviews were collected during a two-week period each month. The response rate for this year's survey was 95.4%.

B. QUESTIONNAIRE

The questionnaire, designed through cooperative agreements with the CDC, was divided into four sections. The first section contained questions on health risk behavior; the second section contained demographic information; the third section contained optional modules, and the fourth section contained state-added questions.

C. DATA ANALYSIS

The data collected by the ADHS Office of Chronic Disease Epidemiology was compiled and weighted by the CDC. Weighted counts were based on the 1998 Arizona population to accurately reflect the population demographics. The weighting factor considered the number of adults and telephone lines in the household, cluster size, stratum size, and age/race/sex distribution of the general population.

All analyses presented are based on cell size counts of at least 8 cases. The demographic information that was collected and presented in these results includes sex, age, education, household income, race, and ethnicity.

Analysis for the table "1998 Behavioral Risk Factor Survey: Risk Factor Prevalence, Percentage Within Demographic Groups" were conducted by the CDC. This table presents the percentage of high-risk behavior within each demographic group for each of the 15 risk factors and 2 chronic disease. The analysis of high risk groups for the results of each section was conducted by the Office of Epidemiology and Statistics. These tables present the demographic information for persons reporting a high-risk behavior or chronic disease.

I. ANNUAL SURVEY RESULTS: ANALYSIS OF HIGH RISK GROUPS

A. HEALTH CARE COVERAGE

According to the 1998 Arizona BRFS, 13.1% of all respondents reported that they did not currently have health care coverage (Figure I-A-1). Most persons who do not have coverage earn less than $25,000 (Table I-A-1). However, the greatest prevalence of respondents with no coverage is among individuals earning less than $15,000 per year (27.6%) (see chart on page 2). Lack of health care coverage is slightly greater among females and exists primarily among persons 18 to 44 years of age. Of persons who reported that they had health care coverage but not medicare, 89.7% have coverage through their employer or someone else's employer.

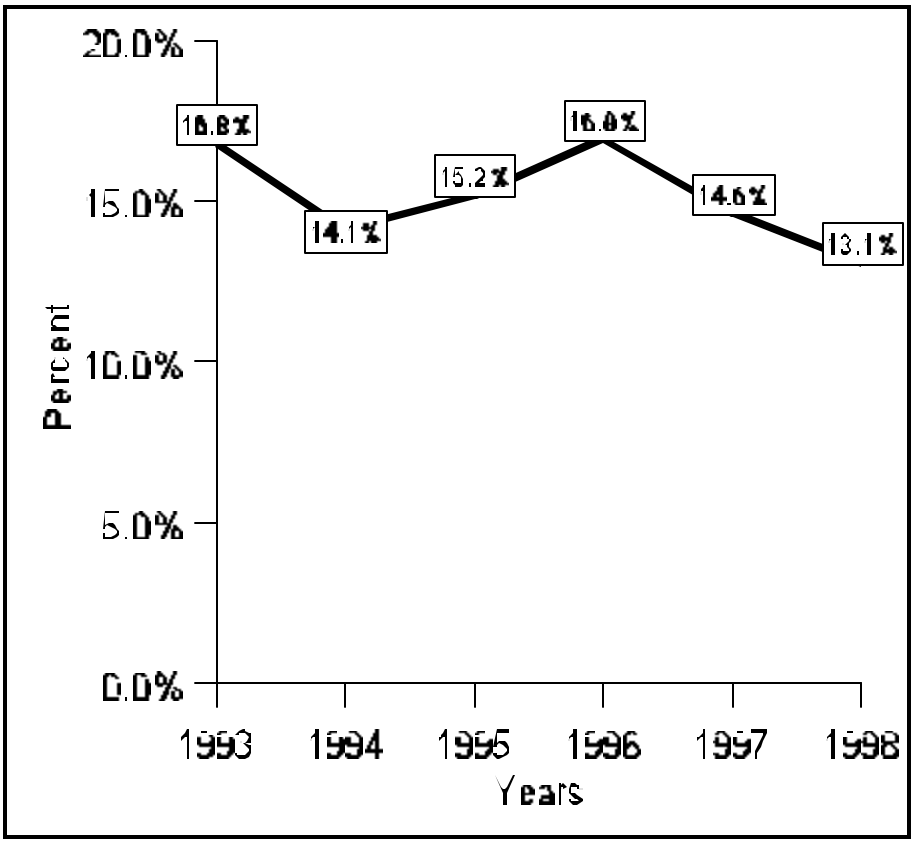

Figure I-A-1. 1993-1998 percent of BRFS respondents reporting they do not have health coverage

Particularly interesting is the high percentage of Arizona Hispanics without health care coverage. Results from Table I on page 2 show 33.4% of Hispanics in this survey do not have coverage. Examination of this ethnicity reveals that 32.9% of Hispanics reported that their annual income was less than $25,000.

Each year the direct financial responsibility for health care increases for the consumer.[1] Moreover, national survey results show that many Americans who have coverage do not understand the basic elements of health plans. There is an increased demand for more information about physicians available in the plans and the services that are covered.[2]

1998 Arizona BRFS Characteristics of persons with no health care coverage	
GROUPS	PERCENTAGE
Sex	
Male	49.0
Female	51.0
Age	
18-24	27.0
25-34	28.3
35-44	26.3
45-54	8.1
55-64	10.4
65+	
Education	
Less Than High School	41.5
High School Graduate or GED	29.6
Some College or Tech School	21.0
College Grad	7.8
Income	
< $15,000	17.8
$15-$24,999	14.4
$25-$49,999	12.0
$50-$74,999	1.2
$$75,000	
Unknown/Refused	54.6
Race	
White	37.6
Non-White	61.8
Ethnicity	
Hispanic	51.7
Non-Hispanic	47.7

Table I-A-1. 1998 BRFS results: characteristics of persons reporting that they did not have health care coverage.

References

1. Bartlett DF, Sorelli B. Preparing for the coming consumer revolution in Health Care. J Health Care Finance, 1997; 23(4):33-39.

2. Isaacs SL. Consumer's Information Needs: Results of a National Survey. Health Aff (Milwood), 1996; 15(4): 31-41.

B. DIABETES

Diabetes is associated with long-term complications that affect almost every major part of the body. This chronic and disabling condition affects primarily older individuals. It can cause blindness, heart disease, strokes, kidney failure, amputations, nerve damage, and birth defects in babies born to women with diabetes. As the U.S. population continues to grow older, concerns on maintaining quality of life have sparked an interest in controlling the onset and related illnesses of persons with diabetes.[1,2]

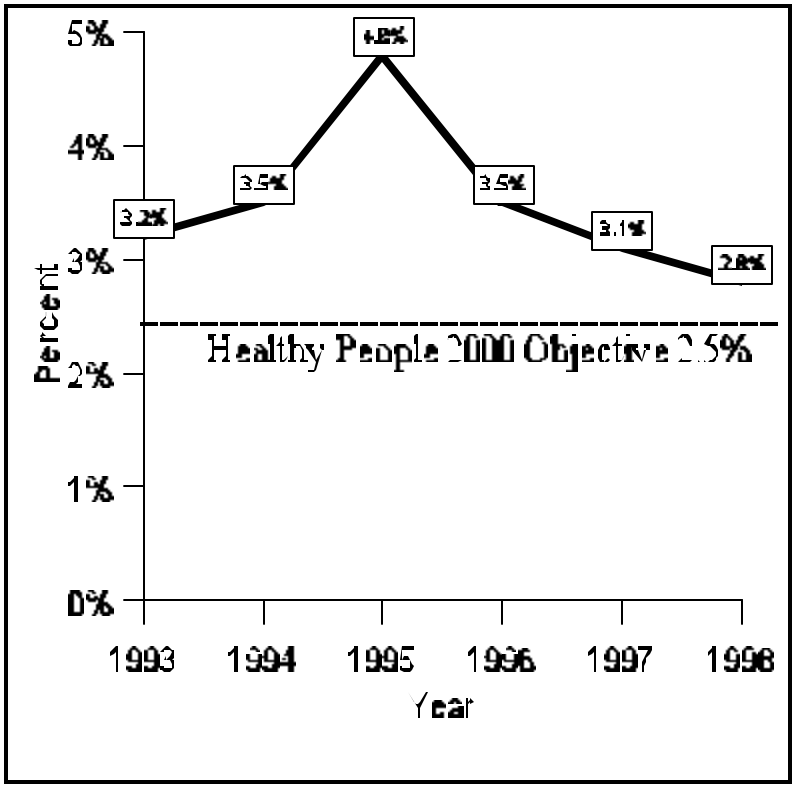

Figure I-B-1. 1993-1998 percent of BRFS respondents reporting that they were told they had diabetes along with the Healthy People 2000 Objective 17.11.

According to the 1998 BRFS, 2.8% of all respondents reported that they were told they have diabetes. This percentage, shown in Figure I-B-1, is similar to the 3.1% reported in 1997. The National Center for Health Statistics *Healthy People 2000 Review 1997* has defined its objective for diabetes prevalence at 2.5% by the year 2000.

Table I-B-1 on the opposite page describes the survey respondents who reported as having diabetes. Greater than half (53.1%) of these individuals are female. Most diabetic persons are 65 years of age or older (33.1%) and 65.3% of them have at least a high school education. Reported diabetics are primarily non-Hispanic (55.6%).

As an included optional module of the 1998 Arizona Behavioral Risk Factor Surveillance Survey, diabetics were asked an additional series of questions pertaining to the control of their condition. Of those responding, 17.8% reported that they take insulin. All diabetics who take insulin reported using insulin at two or more times per day.

When asked how often they check their blood sugar level, 34.8% of the diabetics who take insulin stated "one or more times per day."

1998 Arizona BRFS Characteristics of persons told they had diabetes	
GROUPS	PERCENTAGE
Sex	
Male	46.9
Female	53.1
Age	
18-24	19.4
25-34	
35-44	
45-54	24.3
55-64	23.2
65+	33.1
Education	
Less Than High School	33.3
High School Graduate or GED	27.0
Some College or Tech School	28.0
College Grad	10.3
Income	
< $15,000	10.8
$15-$24,999	
$25-$49,999	9.4
$50-$74,999	
$$75,000	
Unknown/Refused	79.7
Race	
White	48.8
Non-White	48.8
Ethnicity	
Hispanic	41.9
Non-Hispanic	55.6

Table I-B-1. 1998 BRFS results: characteristics of persons told that they had diabetes.

Finally, *Healthy People 2000* Objective 17.23 sets a goal in order to increase to 70% the number of diabetics receiving annual dilated eye exams to detect treatable retinopathy. Of the diabetics responding in the 1998 BRFS survey, 74.5% report receiving an annual dilated eye exam.[2]

References

1. Diabetes Overview, 1993, Vol. 92 Issue 3235, p1, 5p.

2. National Center for Health Statistics. Healthy People 2000 Review, 1997. Hyattsville, Maryland: Public Health Service. 1997.

C. LEISURE-TIME ACTIVITY

Physical activity and exercise are critical elements in the promotion of health. Age-appropriate exercise habits reduce the risk of hypertension, diabetes mellitus, colon cancer, osteoporosis, and immune system dysfunction. [1, 2] Regular exercise also can contribute to the functional independence of the elderly and improves the quality of life for people of all ages.[3]

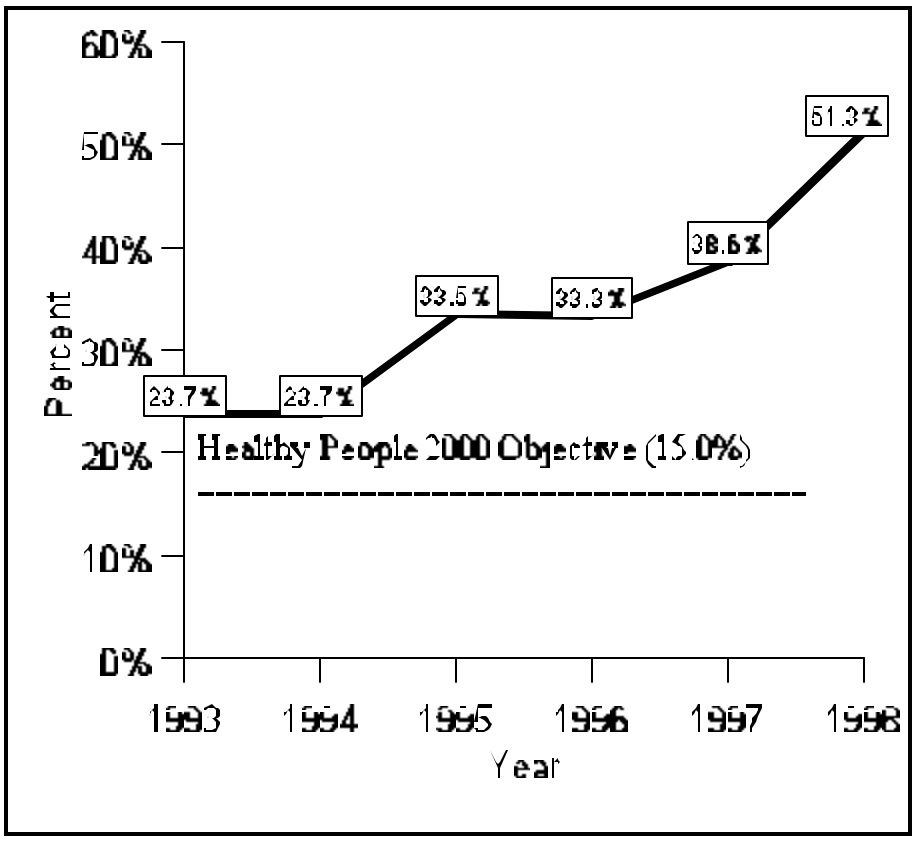

Figure I-C-1. 1993-1998 percent of BRFS respondents reporting that they did not participate in physical activity in the past month along with the Healthy People 2000 Objective 1.5.

Analysis of the 1998 Arizona BRFS indicates that 51.3% of all respondents reported no leisure-time physical activity within the past thirty days (Figure I-C-1). This has increased significantly from 1997 and is well above the Healthy People 2000 Objective of 15.0%.[4]

Within the group that reported no leisure-time activity, there were more women (50.4%) than men (49.6%). The highest percentages of inactive persons were 35 to 44 years of age (23.7%) and 25 to 34 years of age (20.0%) (Table I-C-1). Although inactivity was greatest among low income and less educated individuals (see chart on page 2), Table I-C-1 shows most inactive persons having a high school education, some college or technical school (75.0%) and earning annual incomes of $15,000 to $49,999 (50.3%).

1998 Arizona BRFS Characteristics of persons with no leisure-time activity	
GROUPS	PERCENTAGE
Sex	
Male	49.6
Female	50.4
Age	
18-24	9.1
25-34	20.0
35-44	23.7
45-54	17.7
55-64	11.1
65+	18.0
Education	
Less Than High School	18.2
High School Graduate or GED	52.2
Some College or Tech School	22.8
College Grad	6.7
Income	
< $15,000	11.5
$15-$24,999	17.5
$25-$49,999	32.8
$50-$74,999	2.5
$$75,000	1.3
Unknown/Refused	34.5
Race	
White	69.3
Non-White	30.4
Ethnicity	
Hispanic	26.5
Non-Hispanic	73.5

Table I-C-1. 1998 BRFS results: characteristics of persons reporting that they did not participate in physical activity during the past thirty days.

References

1. Siscovick DS, et al. Disease Specific Benefits and Risks of Physical Activities and Exercise. Public Health Reports, 1985; 100(2): 180-188.

2. Venjatraman JT, Fernandes G. Exercise, Immunity an Aging. Aging, 1997; 9(1-2): 42-56.

3.Katz S, Branch LG, Branson MH, et al. Active Life Expectancy. N Engl J Med, 1983; 309: 1218-1224.

4. National Center for Health Statistics. Healthy People 2000 Review, 1997. Hyattsville, Maryland: Public Health Service. 1997.

D. CIGARETTE SMOKING

Tobacco use is responsible for one out of every five deaths in the U.S.[1, 2] Cigarette smoking is a major contributor to diseases such as lung cancer, oral cancer, and heart disease. Smoking is also found to be associated with depression, anxiety disorders, and, in children of smokers, sudden infant death syndrome (SIDS). [3 - 5] Approximately 50% of all regular smokers die from a smoking-related illness. [6]

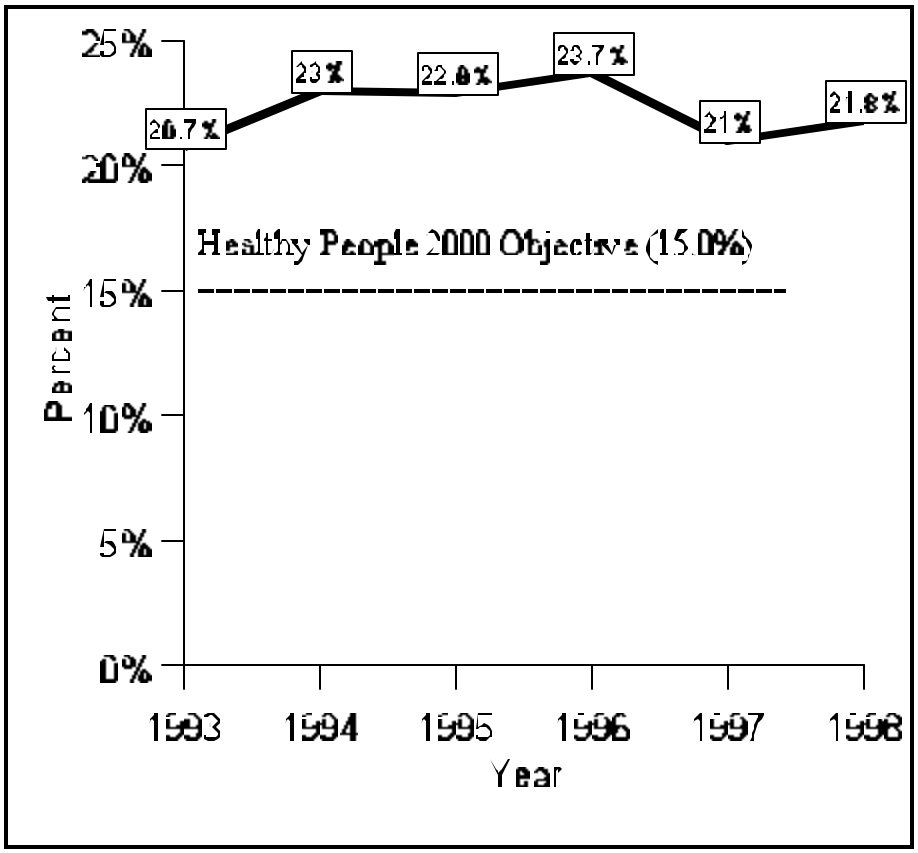

Figure I-D-1. 1993-1998 percent of BRFS respondents reported that they were current smokers along with the Healthy People 2000 Objective 3.4.

According to the 1998 Arizona BRFS, 21.8% of those surveyed reported that they are currently smokers. This percentage has increased slightly from 1997 (Figure I-D-1). Smokers were mostly Male 54.9%. Smokers were found to be primarily White, Non-Hispanic (76.9%) between the ages of 25 and 44 years old (50.4%) (Table I-D-1). The percentage of respondents with income less than $25,000 reporting they were smokers was 26.0%. While smoking respondents with income of $25 - $49,999 were 35.0%. Respondents with a high school education or less were most likely to be smokers at 67.0%.

While the 1998 BRFS shows a slight increase of 0.8% in the rate of adult smokers it will take time to see if this is a true trend. Regardless, Arizona's smoking rates are still higher than the Healthy People 2000 objective 3.4 that sets a target to reduce cigarette smoking to no more than 15% among persons 18 years of age or older.[7] Continued efforts to prevent initial smoking behavior in adolescents, as well as efforts to promote smoking cessation in current smokers using techniques which have documented effectiveness, may decrease the rate of Arizona smokers to meet the *Healthy People 2000* Objective 3.4.

1998 Arizona BRFS Characteristics of current smokers	
GROUPS	PERCENTAGE
Sex	
Male	54.9
Female	45.1
Age	
18-24	6.1
25-34	23.3
35-44	27.1
45-54	18.3
55-64	17.3
65+	7.8
Education	
Less Than High School	12.2
High School Graduate or GED	54.8
Some College or Tech School	26.1
College Grad	6.9
Income	
< $15,000	9.9
$15-$24,999	16.1
$25-$49,999	35.0
$50-$74,999	6.2
$$75,000	
Unknown/Refused	32.8
Race	
White	76.9
Non-White	22.7
Ethnicity	
Hispanic	18.3
Non-Hispanic	81.4

Table I-D-1. 1998 BRFS results: characteristics of persons reporting that they are current smokers and have smoked at least 100 cigarettes in their life.

References

1. Centers for Disease Control and Prevention. Smoking-Attributable Mortality and Years of Potential Life Lost-United States, 1990. MMWR. 1993.

2. Leigh JP. Occupations, Cigarettes Smoking, and Lung Cancer in the Epidemiological Follow-up to the NHANES I and the California Occupational Mortality Study. Bull N Y Acad Med, 1996; 73(2): 370-397.

3. Slattery ML, Potter JD, Friedman GD, Ma KN, Edward S. Tobacco Use and Colon Cancer. Int J Cancer, 1997; 70 (3):259 - 264.

4. Breslau N. Psychiatric Comorbidity of Smoking and Nicotine Dependence. Behav Genet, 1995; 25(2): 95-101.

5. MacDorman MF, Cnattingius S, Hoffman HJ, Kramer MS, Haglund B. Sudden Infant Death Syndrome and Smoking in the United States and Sweden. Am J Epidemiology, 1997; 146(3): 249-257.

6. Doll R, Peto R, Wheatley K, Gray R, Sutherland I. Mortality in Relation to Smoking: 40 Years' Observations on Male British Doctors. British Med J, 1994; 309:901-911.

7. National Center for Health Statistics. Healthy People 2000 Review, 1997. Hyattsville, Maryland: Public Health Service. 1997.

E. FRUIT/VEGETABLE CONSUMPTION

It has been known for many years that diet plays a large role in the quality of long-term health. For adults who do not drink excessively or smoke, diet is the most significant controllable risk factor that determines their health status.[1] On the average, 10% to 70% of all cancer deaths can be attributed to poor diet habits.[2]

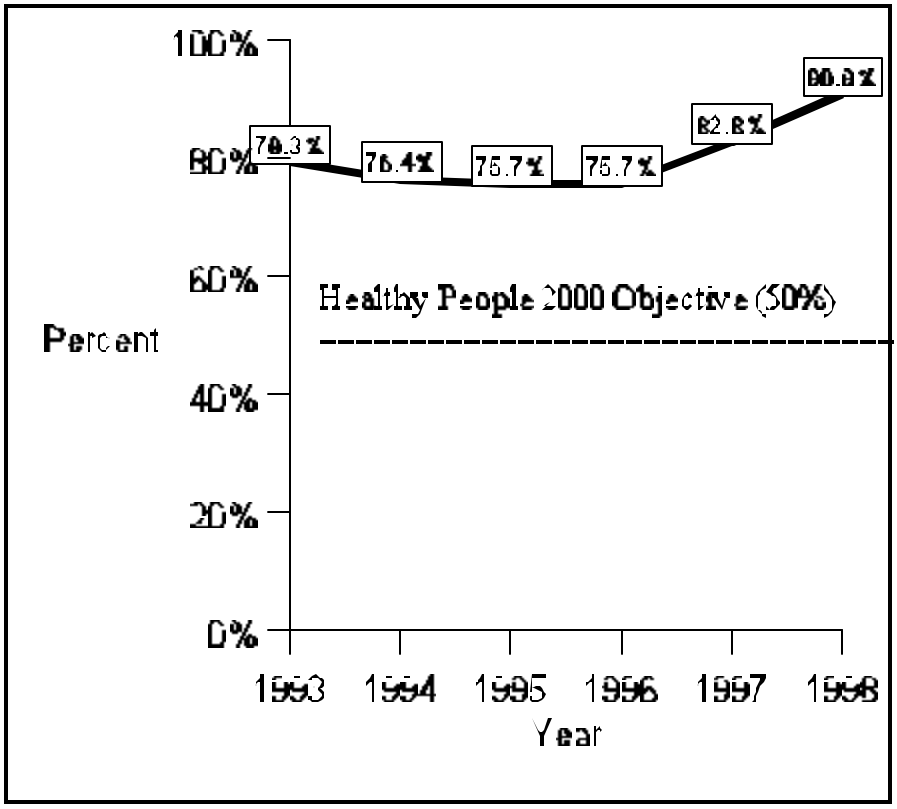

Figure I-E-1. 1993-1998 percent of BRFS respondents reporting that they consume less than 5 servings of fruits/vegetables per day along with the Healthy People 2000 Objective 2.6.

One of the most important diet habits to follow is the consumption of at least 5 servings of fruits/vegetables per day. Analysis of the 1998 Arizona BRFS shows that 90.9% of respondents reported that they consume less than 5 servings of fruits/vegetables per day (Figure I-E-1). This percentage is the highest recorded this decade. Persons who stated that they consume less than 5 servings of fruits/vegetables per day are 25 to 44 years of age, (42.5%) and have a high school education, some college or technical school (71.0%) (Table I-E-1).

Healthy People 2000 Objective 2.6 has set a target to increase to at least 50% the proportion of persons consuming at least 5 fruits/vegetables per day.[3] Since the current proportion of Arizona residents who have achieved objective 2.6 is 9.1% , at least an additional 40.9% of the population with poor diet habits still need to be consuming at least 5 fruits/vegetables per day in order to obtain this objective. The current increase in Arizonans failing to eat at least 5 fruits/vegetables per day means a more effective approach is necessary to promote the benefits of consuming the proper quantity of fruits and vegetables each day if the *Healthy People 2000* Objective 2.6 is to be met.

1998 Arizona BRFS Characteristics of persons not consuming at least 5 servings of fruits/vegetables per day	
GROUPS	PERCENTAGE
Sex	
Male	49.4
Female	50.6
Age	
18-24	12.3
25-34	20.7
35-44	21.8
45-54	16.3
55-64	11.0
65+	17.7
Education	
Less Than High School	14.1
High School Graduate or GED	45.3
Some College or Tech School	25.7
College Grad	14.8
Income	
< $15,000	9.1
$15-$24,999	13.7
$25-$49,999	31.0
$50-$74,999	4.5
$$75,000	2.8
Unknown/Refused	39.0
Race	
White	73.0
Non-White	26.4
Ethnicity	
Hispanic	20.9
Non-Hispanic	79.0

Table I-E-1. 1998 BRFS survey results: characteristics of persons reporting that they do not consume at least 5 servings of fruits/ vegetables per day.

References

1. U.S. Department of Health and Human Services. The Surgeon General's Report on Nutrition and Health. Washington: Public Health Service. 1988.

2. Doll R, Peto R. The Causes of Cancer: Quantitative Estimates of Avoidable Risks of Cancer in the United States Today. J Natl Cancer Inst., 1981; 66(6): 1191-1308.

3. National Center for Health Statistics. Healthy People 2000 Review, 1997. Hyattsville, Maryland: Public Health Service. 1997.

F. OVERWEIGHT (BMI)

During the past ten years, increases in the prevalence of obesity have been documented. In the United States an estimated 55.0% of adults are considered overweight or obese.[1] The body mass index (BMI) is a relationship between weight and height and is used to determine obesity and assess health risk. BMI is calculated using the following formula: (pounds * 0.454) ÷ (inches * 0.0254)² or (Kg/M²).

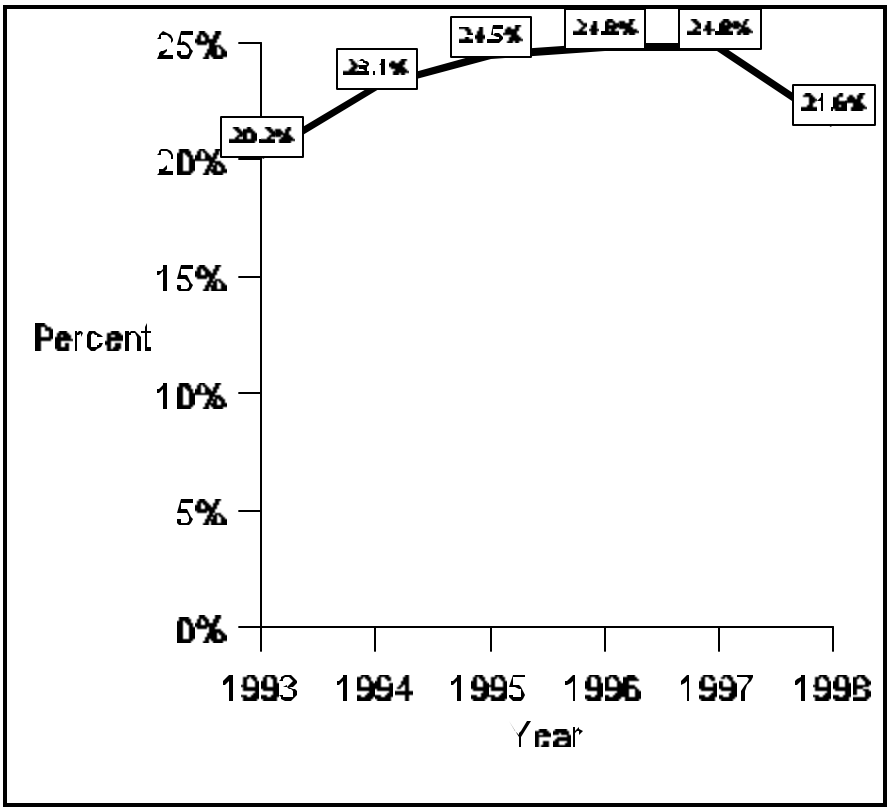

Figure I-F-1. 1993-1998 percent of BRFS respondents reporting weights which exceed BMI limits.

According to the 1998 BRFS, 21.6% of respondents this exceeded the BMI standard for overweight (Figure I-F-1). Persons who are overweight are mostly: White (54.0%) between the ages 35 and 54 years of age (47.2%), and those with a high school education (32.4%).

Healthy People 2000 Objective 1.2 lists the goal to reduce overweight to a prevalence of #20% among adults 20 years of age or older (defined as a BMI $27.8 for men and a BMI $27.3 for women) and #15% among adults 18 to 19 years of age (defined as a BMI $25.8 for men and a BMI $25.7 for women).[4] Several diseases are associated with obesity, and even modest weight losses can result in reduced risk. The health effects of weight control has received extensive review, with the following major findings: *Cardiovascular Disease* - The optimal BMI regarding this disease is 22.6 for men and 21.1 for women. At those levels, there appears to be 25% less heart disease and 35% fewer strokes or episodes of heart failure.[2] *Diabetes* - In both men and women, the highest prevalence of diabetes occurs at a BMI greater than 28.[3] Between 80% and 90% of people with Type II diabetes mellitus are obese.[2] *Hypertension* - Risk of hypertension increases with a BMI of greater than 22. Hypertension is two times more common among obese persons.[2] *Osteoarthritis* - There is an increased incidence of osteoarthritis at a BMI of 25 or greater.[3] In men, a decrease of approximately four BMI units resulted in a 21.4% decrease

in the rate of symptomatic osteoarthritis of the knee.[3]

1998 Arizona BRFS Characteristics of overweight persons	
GROUPS	PERCENTAGE
Sex	
Male	50.7
Female	49.3
Age	
18-24	7.5
25-34	18.7
35-44	26.8
45-54	20.4
55-64	11.7
65+	14.8
Education	
Less Than High School	29.2
High School Graduate or GED	32.4
Some College or Tech School	23.4
College Grad	14.9
Income	
< $15,000	8.0
$15-$24,999	13.3
$25-$49,999	27.6
$50-$74,999	3.3
$$75,000	2.9
Unknown/Refused	44.9
Race	
White	54.0
Non-White	46.0
Ethnicity	
Hispanic	35.3
Non-Hispanic	64.7

Table I-F-1. 1998 BRFS results: characteristics of persons with BMI $ 27.3 (females) or BMI $ 27.8 (males).

Selected Cancers - There is an increased risk of endometrial cancer in women with a BMI greater than 28. Similarly, there is an increased risk of breast cancer, especially after menopause, in women with BMI greater than 26.[2]

References

1. National Heart, Lung, and Blood Institute & National Institute of Diabetes and Digestive and Kidney Diseases, 1998

2. Shape Up America, American Obesity Association. Guidance for Treatment of Adult Obesity. Bethesda: Shape Up America; 1996:1-95.

3. St. Jeor ST, Brownell KD, Atkinson RL. New Multidisciplinary Strategies in Obesity Management. Clark, New Jersey: Health Learning Systems; 1997.

4. National Center for Health Statistics. Healthy People 2000 Review, 1997. Hyattsville, Maryland: Public Health Service. 1997.

G. ROUTINE MAMMOGRAPHY

The key to reduction in breast cancer mortality is dependent upon successful treatments and early detection. Routine mammography may reduce breast cancer mortality by 30%.[1] Currently, the American Cancer Society recommends mammography in women ages 40 to 49, while the National Cancer Institute recommends that women discuss mammography with their physician. The benefits of obtaining routine mammograms is the ability of this test to detect tumors smaller than would be detectable using a self breast exam. Smaller tumors are more likely to be associated with an early stage of breast cancer and thereby respond to treatment better.

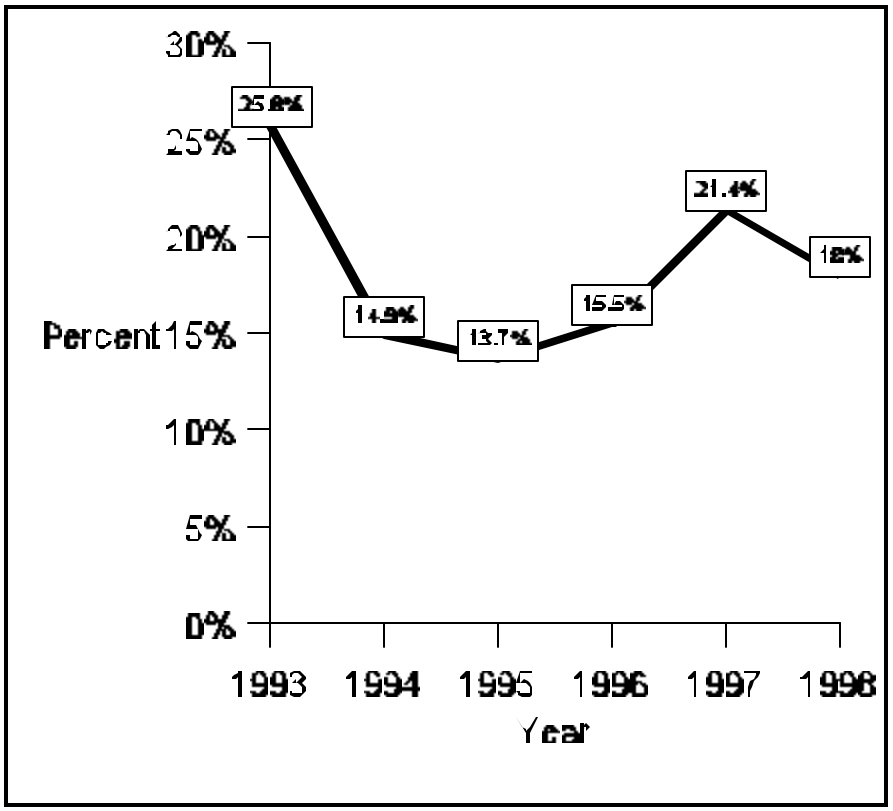

Figure I-G-1. 1993-1998 percent of BRFS female respondents 40 years of age or older reporting they have never had a mammogram.

Analysis of the 1998 Arizona BRFS showed 22.7% of females 40 years of age or older responding that they had never had a mammogram. National BRFS results from 1996 showed only 20.9% of women 40 years of age or older reported never having had a mammogram.[2] Table I-G-1 shows the greatest percentage of women responding that they have never had a mammogram are primarily 40-44 years of age or older (9.7%).

Most breast cancer s are discovered by women through self breast exam. Unfortunately, one-third of these women will wait at least 3 months before seeking treatment. Reasons for delayed medical care include, interpretation of symptoms as non-threatening and economic limitations to accessing services.[3] Removal of these barriers is essential for successful breast cancer treatment.

1998 Arizona BRFS Characteristics of woman never having a mammogram	
GROUPS	PERCENTAGE
Sex	
Male	-
Female	100.0
Age	
18-24	-
25-35	-
40-44	9.7
45-54	5.6
55-64	3.9
65+	4.5
Education	
Less Than High School	18.9
High School Graduate or GED	41.4
Some College or Tech School	19.9
College Grad	19.8
Income	
< $15,000	15.9
$15-$24,999	18.5
$25-$49,999	20.8
$50-$74,999	5.1
$$75,000	4.3
Unknown/Refused	35.4
Race	
White	64.6
Non-White	35.4
Ethnicity	
Hispanic	28.4
Non-Hispanic	71.6

Table I-G-1. 1998 BRFS results: characteristics of women 40 year of age or older reporting that they never had a mammogram.

References

1. Murphy GP, Lawrence W, Lenhard RE. American Cancer Society Textbook of Clinical Oncology, 2nd Edition. Atlanta, Georgia, 1995.

2. Centers for Disease Control and Prevention. 1996 BRFSS Summary Prevalence Report, January 8, 1997.

3. Facione NC, Dodd MJ, Holzemer W, Meleis AI. Helpseeking for Self-Discovered Breast Symptoms. Implications for Early Detection. Cancer Pract., 1997; 5(4): 220-227.

H. HIV/AIDS

Human Immunodeficiency Virus or HIV is the virus that causes Acquired Immune Deficiency Syndrome, AIDS. AIDS is a disease that weakens the body's immune system, making a person susceptible to life-threatening opportunistic infections. HIV is now the second leading cause of death among young adults (25-44) in the United States.[1]

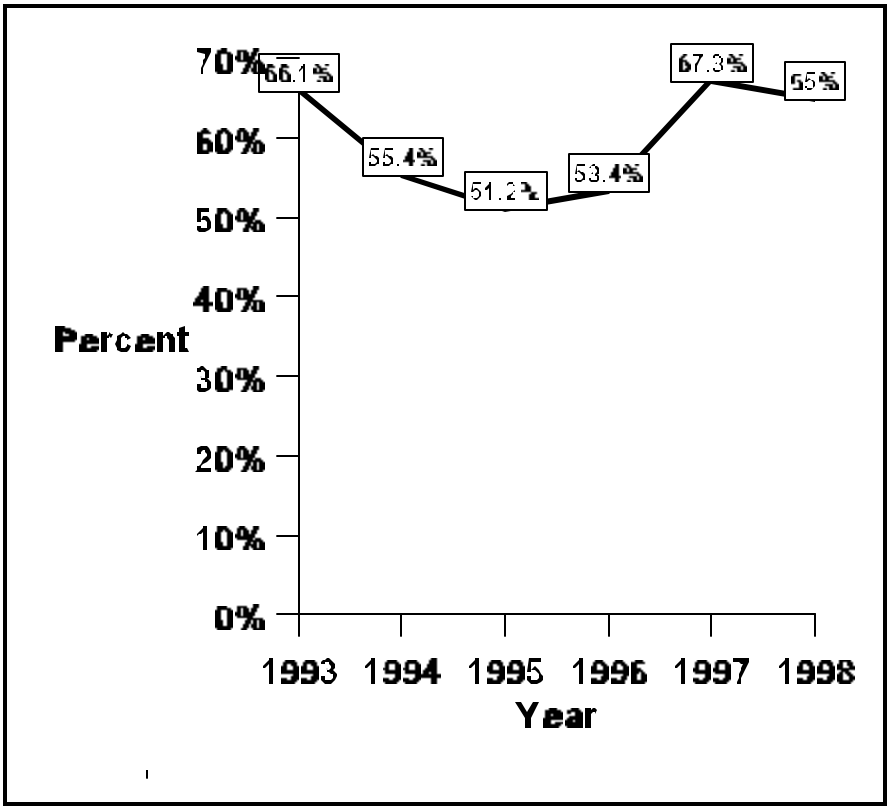

Figure I-H-1. 1993-1998 percent of BRFS respondents age 18 to 64 years of age reporting that they have not been tested for HIV.

It is vital for people infected with HIV disease to obtain early medical care to slow the disease progression, and improve their length and quality of life. It is estimated that more than half of the people infected with HIV do not know they are infected.[2]

Findings from the 1998 BRFS show that over two - thirds (65%) of Arizonans surveyed have not been tested for HIV (Figure I-H-1). When asked: 'What are your chances of getting infected with HIV, the disease that causes AIDS ?,' only .5% said high, while 77.3% reported no chance.

Table I-H-1. describes persons who have never been tested for HIV. The majority of these respondents are between the ages of 25 and 54 years old 67.8% and 83% of them have at least a high school level education. Persons who have not been tested for HIV are predominately White (69.6%) and non-Hispanic (76%). The median income group for these people was $25,000-$49,999.

Who should be tested for HIV? If a person has engaged in behavior that can transmit HIV, it is important to consider testing. The following are known risk factors for HIV infection. 1. Sharing needles or syringes to inject drugs or steroids; 2. If you have ever had a sexually transmitted disease; 3. Received a blood transfusion or clotting factor between 1978 and 1985; 4. If you have had unprotected sex with someone and not known their HIV status.[3]

1998 Arizona BRFS Characteristics of persons not tested for HIV	
GROUPS	PERCENTAGE
Sex	
Male	50.2
Female	49.8
Age	
18-24	14.0
25-35	17.0
40-44	22.5
45-54	28.3
55-64	18.1
65+	-
Education	
Less Than High School	17.0
High School Graduate or GED	44.9
Some College or Tech School	25.6
College Grad	12.5
Income	
< $15,000	5.9
$15-$24,999	11.9
$25-$49,999	32.7
$50-$74,999	5.9
$$75,000	1.7
Unknown/Refused	42.0
Race	
White	69.6
Non-White	29.7
Ethnicity	
Hispanic	24.0
Non-Hispanic	76.0

Table I-H-1. 1998 BRFS survey results: characteristics of persons 18 - 64 years of age reporting that they have not been tested for HIV.

References

1. Ventura SJ, Peters KD, Martin JA, Maurer JD. Births and Deaths, 1996. Monthly vital statistics report; vol 46 no 1, supp2. National Center for Health Statistics. 1997.

2. Graham NM. Epidemiology of acquired immunodeficiency syndrome: advancing to an endemic era. American Journal of Medicine. Apri1;102(4A):2-8. 1997.

3. Facts about HIV/AIDS. ADHS HIV/AIDS brochure. 1998.

II
MODULE SURVEY RESULTS: ANALYSIS OF HIGH RISK GROUPS

A. ORAL HEALTH

About 30,000 Americans are diagnosed with oral and throat cancers annually. There are also more than 8,000 deaths from both diseases each year.[1]

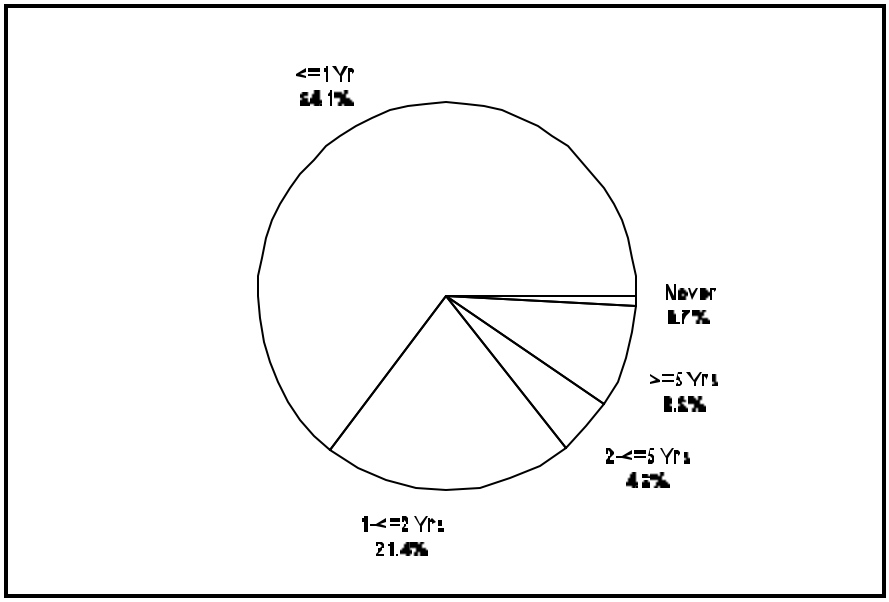

Figure II-A-1. Responses to the 1998 BRFS question: How long has it been since you last visited the dentist or a dental clinic?

Results from the 1998 BRFS show that 85.5% of respondents had a dental visit within the past two years.

The 1998 BRFS also asked about dental insurance coverage. Of those responding, 52.4% report that they have insurance covering some or all of their routine dental care. For respondents who did not have a dental visit in the past year 66.5% did not have dental insurance.

Table II-A-1. describes survey respondents who reported they did not have a dental visit in the past year. The majority of these (63.6%) are between the ages 18 and 44 years of age, and 72.7% of them are high school graduates or less. Respondents who have not had a dental visit within the past year are primarily White (60.2%) and non-Hispanic (63.9%).

1998 Arizona BRFS Characteristics of respondents who did not visit the dentist or a dental clinic within past year	
GROUPS	PERCENTAGE
Sex	
Male	48.9
Female	51.1
Age	
18-24	15.3
25-34	27.5
35-44	20.8
45-54	9.9
55-64	8.3
65+	17.9
Education	
Less Than High School	27.6
High School Graduate or GED	45.1
Some College or Tech School	17.4
College Grad	9.8
Income	
< $15,000	17.8
$15-$24,999	18.1
$25-$49,999	20.3
$50-$74,999	3.4
$$75,000	
Unknown/Refused	
Race	
White	60.2
Non-White	39.3
Ethnicity	
Hispanic	36.1
Non-Hispanic	63.9

Table II-A-1. 1998 BRFS survey results: Characteristics of respondents who did not visit the dentist or a dental clinic within past year.

References

1. Centers for Disease Control and Prevention. Improving Oral Health: Preventing Unnecessary Disease Among All Americans, At-A-Glance, 1999.

2. Rayburn WF, Stanley JR, Garrett ME. Periconceptional folate intake and neural tube defects. Journal of the American College of Nutrition 15(2):121-5, 1996.

3. Campbell NR. How safe are folic acid supplements? Archives of Internal Medicine 156(15):1638-44 1996.

B. SAFETY BELT USE

Nationwide 41,471 persons were killed in motor vehicle crashes in 1998. Nine hundred eighty of those persons were killed in Arizona. Nevertheless, the fatal crash rate for the U.S. and Arizona continues to steadily decline.[1] It is well known that safety belt use has contributed greatly to the decrease in motor vehicle fatalities. [2] The Arizona Department of Transportation's 1998 report indicates 83.8% of all drivers involved in crashes that year were reportedly wearing safety belts. This report also indicates that 36.0% of the drivers that were killed were wearing seat belts.

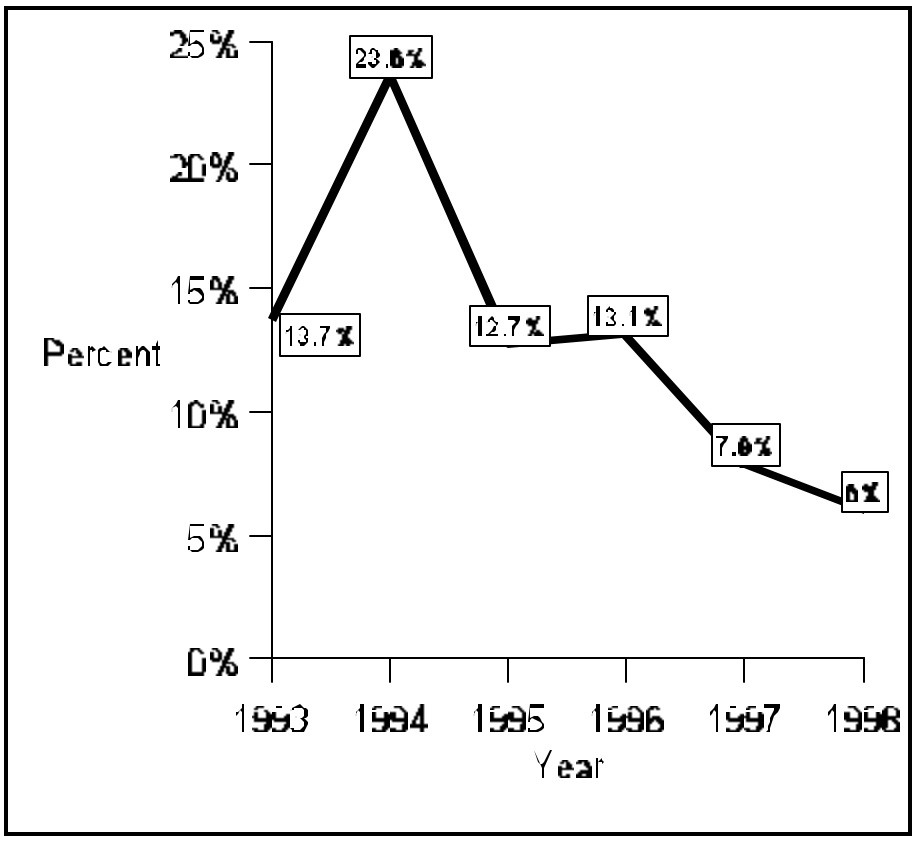

Figure II-B-1. 1993-1998 percent of BRFS respondents reporting they "sometimes," "seldom" or "never" use safety belts.

Analysis of the 1998 Arizona BRFS showed 6% of all respondents reported that they "sometimes," "seldom," or "never" use safety belts. This is the lowest percentage reported this decade. (Figure II-B-1).

Table II-B-1 indicates that persons who do not routinely wear safety belts are male (57.7%), and 18 to 24 years of age (25.9%), with a high school education or less (61.7%).

Healthy People 2000 Objective 9.3 targets motor vehicle crash deaths at 1.5 per 100 million miles traveled by the year 2000.[3] Currently the Arizona fatality crash rate is 2.4 for 1996. This figure has not decreased significantly since the early 1990's. The current 1996 U.S. fatality crash rate is 1.7 per 100 million miles traveled.[1] Efforts in Arizona to decrease the fatal crash rate to not only equal the U.S. rate but meet the *Healthy People 2000* objective 9.3 will require continued crash fatality prevention as well as crash intervention efforts such as safety belts, air bags and infant car seats.

1998 Arizona BRFS Characteristics of safety belt use	
GROUPS	PERCENTAGE
Sex	
Male	57.7
Female	42.3
Age	
18-24	25.9
25-34	20.0
35-44	17.7
45-54	16.0
55-64	7.9
65+	11.9
Education	
Less Than High School	21.5
High School Graduate or GED	40.2
Some College or Tech School	28.9
College Grad	9.4
Income	
< $15,000	24.3
$15-$24,999	19.5
$25-$49,999	22.9
$50-$74,999	6.3
$$75,000	
Unknown/Refused	27.0
Race	
White	67.8
Non-White	31.5
Ethnicity	
Hispanic	28.0
Non-Hispanic	72.0

Table II-B-1. 1998 BRFS results: characteristics of persons reporting they “sometimes”, “seldom”, or “never” use safety belts.

References

1. Arizona Motor Vehicle Crash Facts 1998. Motor Vehicle Crash Statistics Unit, Arizona Department of Transportation.

2. National Highway Traffic Safety Administration. 1989 Estimates of Lives Saved. Washington: Department of Transportation. 1990.

3. National Center for Health Statistics. Healthy People 2000 Review, 1997. Hyattsville, Maryland: Public Health Service. 1997.

C. INJURY CONTROL

Intentional and unintentional injuries are among the leading causes of death nationwide and in Arizona.[1] Injuries sustained due to motor vehicle crashes, violence, occupational hazards, poisonings, and many other causes fuel the high mortality rate which can be a consequence of these incidents.[2] Among the most preventable of these are bicycle-related head injuries and burn-related injuries in the home.

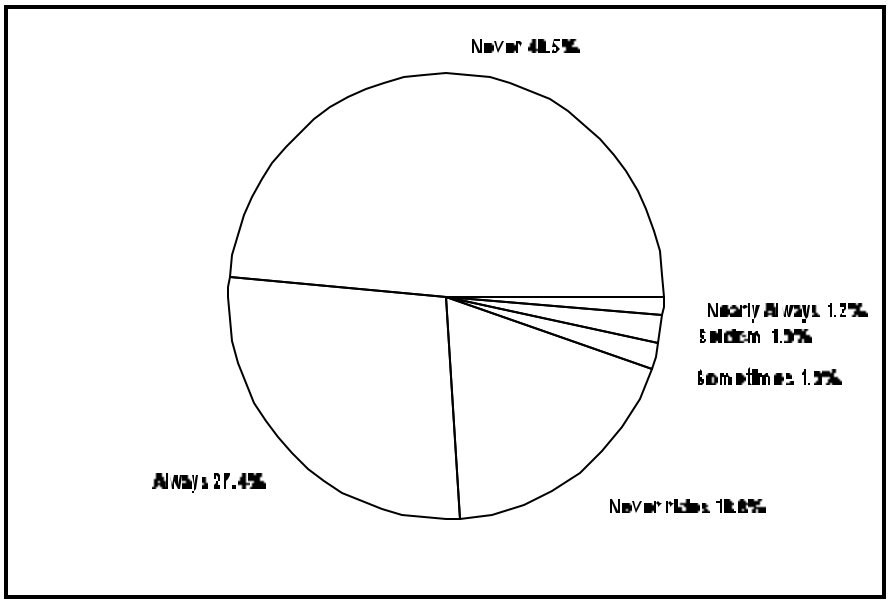

Figure II-C-1. 1998 Arizona BRFS: How often the oldest child has worn a bicycle helmet out of all oldest children who ride a bicycle?

According to the 1998 Arizona BRFS, almost half (48.5%) of all oldest children who ride a bicycle never wear a bicycle helmet (Figure II-C-1). Of those reporting that their oldest child never wears a helmet while riding a bicycle, 47.6% earn from $20,000 to $34,999 per year, 78.1% have a high school diploma or some college education, 65.9% are White and 69.6% are non-Hispanic.

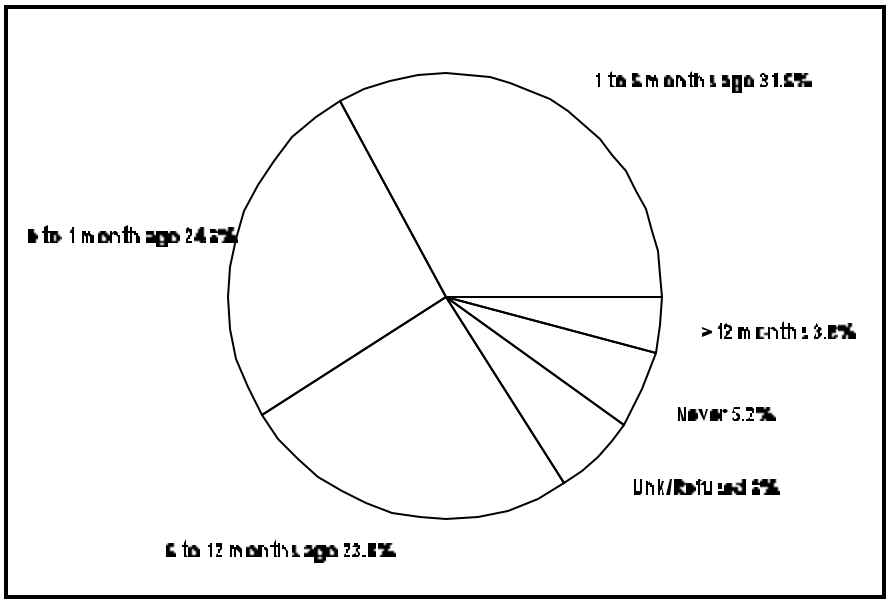

Figure II-C-2. 1998 Arizona BRFS: Last time that all the smoke detectors in the respondent's house were tested.

The information presented from the adult respondents with children show the majority of these adults are well educated with average to above average incomes. Common reasons given by parents for lack of bicycle helmet ownership by children from one study include "never thought about purchasing a helmet," "never got around to purchasing a helmet," "child wouldn't wear it anyway," and "too expensive". In contrast, most children who are without helmets said they

would wear one if they had one . There is evidence that parental rules are associated with bicycle helmet use by children.[5] Efforts by health care professionals to encourage parents to purchase bicycle helmets and enforce their use, may increase regular helmet use in children.

Respondents were also surveyed on how often they test all the smoke detectors in their house. Somewhat over half, 56.2% responded that all smoke detectors in their house were tested 0 to 6 months ago (Figure II-C-2). Persons who responded that they never test all their smoke detectors were primarily female (55.0%), have a high school diploma or some college (65.1%), White (59.8%), and non-Hispanic (82.3%).

Persons in homes without smoke detectors are two times as likely to die from burn-related injuries as those in homes with smoke detectors.[3] Of all respondents surveyed 5.5% said they had no smoke detectors in their home. This percentage is lower than the 8.0% cited from the Pennsylvania BRFS results.[4]

References

1. Mrela C. Arizona Health Status and Vital Statistics. Office of Health Planning, Evaluation and Statistics. Arizona Department of Health Services, 1997.

2. Position Papers from: The Third National Injury Control Conference "Setting the National Agenda for Injury Control in the 1990's". U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, 1992.

3. Hall JR Jr. A Decade of Detectors: Measuring the Effect. Fire J, 1985; 79: 37-43.

4. Forjuoh SN, Coben JH, Dearwater SR, Weiss HB. Identifying Homes with Inadequate Smoke Detector Protection from Residential Fires in Pennsylvania. J Burn Care Rehabil, 1997; 18(1 Pt 1): 86-91.

5. Miller PA, Binns HJ, Christoffel KK. Children's Bicycle Helmet Attitudes and Use. Association with Parental Rules. Arch Pediatric Adolesc Med, 1996; 150(12): 1259-1264.

D. ARTHRITIS & QUALITY OF LIFE

The leading cause of disability in this country are arthritis and other rheumatic conditions. In 1992 these maladies affected 42.7 million persons and cost $65 billion. As the population continues to age these numbers will increase.[1]

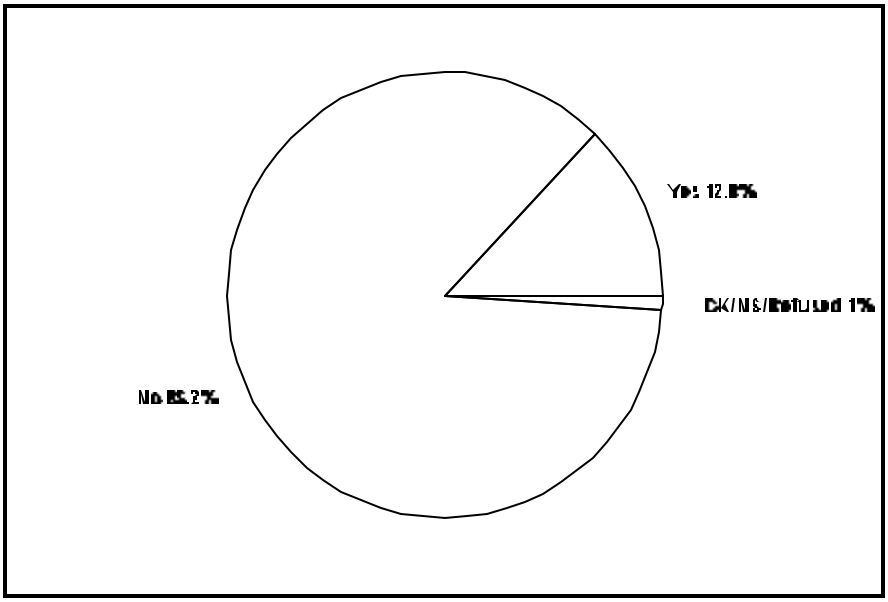

Figure II-D-1. 1998 Arizona BRFS: Have you ever been told by a doctor that you have arthritis?

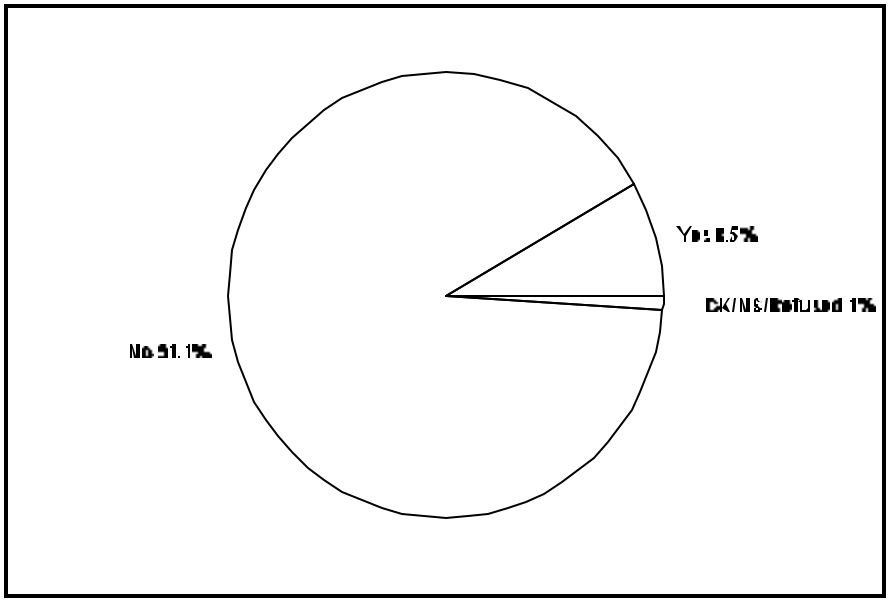

Figure II-D-2. 1998 Arizona BRFS: Are you limited in any way in any activities because of any impairment or health problem?

The vast majority of respondents have not been told they have arthritis (86.2%), according to the 1998 Arizona BRFS (Figure II-D-1). Of those reporting that a doctor has told them they have arthritis over half, 60.8% were women, 47.6% were 65 years of age or older, 81.9% are White and 86.2% are non-Hispanic.

Respondents were also surveyed on whether they were limited in any way in any activities due to an impairment or health problem. The vast majority, 91.1% responded that they were not limited (Figure II-D-2). Persons who responded that they were limited were primarily female (51.5%), were at least 50 years old (59.5%), 86.8% are White, and 92.0% are non-Hispanic.

Increasing the length of healthy life for all Americans is one of the objectives contained in the Healthy People 2010 program. The combination of public health programs, improved social conditions, and private medical care have contributed

to the lengthening of life expectancy from 47 years in 1900 to 75 years in 1989. However, increased life expectancy has included periods of lowered health-related quality of life for some people.[2]

References

1. Centers for Disease Control and Prevention. CDC Surveillance Summaries, May 8, 1998 MMWR 1998 47 (No. 17).

2. Centers for Disease Control and Prevention. CDC Surveillance Summaries, May 27, 1994 MMWR 1994 43 (No. 20).

E. FOLIC ACID AWARENESS

Each year in the United States, approximately 4000 pregnancies are affected by neural tube defects (NTDs).[1] Studies have shown that up to 50% of neural tube defects (NTDs) such as spina bifida and anencephaly may be preventable through adequate intake of folic acid.[2] Folic acid is a B vitamin that helps form red blood cells and has been found to reduce the risks of certain types of birth defects, cancer, and cardiovascular disease.[3] While folic acid is important for everyone's health, it is especially vital for women of childbearing age.

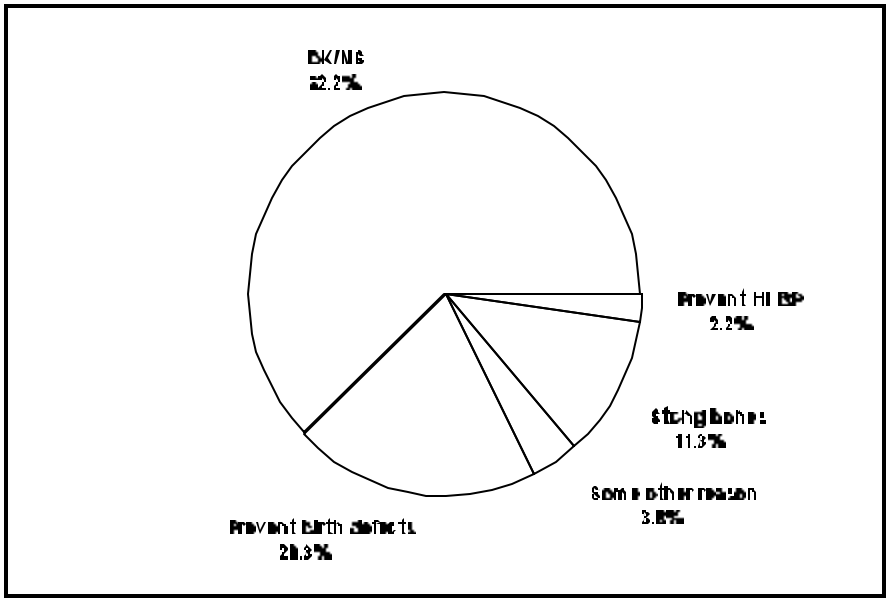

Figure II-E-1. Responses to the 1998 BRFS question: Does folic acid prevent birth defects?

Results from the 1998 BRFS show that when asked why health experts recommend that all women of childbearing age consume 400 mcg of folic acid daily, just over half (52.8%) knew folic acid may prevent birth defects. This has changed greatly from 1996 when the percentage was much lower at 30.5%. The percentages in figures II-E-1. suggest a continued need to educate Arizona residents about folic acid and the role it plays in healthy babies.

Table II-E-1. describes survey respondents who reported as not knowing that folic acid may prevent birth defects. The majority of these respondents are male (56.5%), are between the ages 25 and 44 years of age (74.8%), and 80.6% of them are at least high school graduates. Respondents who did not know that folic acid may prevent birth defects are primarily White (60.7%) and non-Hispanic (69.3%).

Lastly, the United States Public Health Service recommends that: All women of childbearing age in the United States who are capable of becoming pregnant should consume 0.4 mg (400 mcg) of folic acid per day for the purpose of reducing their risk of having a pregnancy affected with a neural tube defect.[4]

1998 Arizona BRFS Characteristics of respondents age (18-44) who did not know that folic acid prevented birth defects	
GROUPS	PERCENTAGE
Sex	
Male	56.4
Female	43.6
Age	
18-24	24.8
25-34	34.8
35-44	39.9
45-54	-
55-64	-
65+	-
Education	
Less Than High School	19.3
High School Graduate or GED	42.5
Some College or Tech School	23.4
College Grad	14.7
Income	
< $15,000	13.9
$15-$24,999	15.5
$25-$49,999	22.1
$50-$74,999	7.0
$$75,000	
Unknown/Refused	41.5
Race	
White	60.7
Non-White	38.9
Ethnicity	
Hispanic	30.4
Non-Hispanic	69.4

Table II-E-1. 1998 BRFS survey results: Characteristics of respondents age (18-44) who did not know that folic acid prevented birth defects.
- = Not applicable.

References

1. Centers for Disease Control and Prevention. CDC Surveillance Summaries, August 8, 1997. MMWR 1997; 46 (No. 31).

2. Rayburn WF, Stanley JR, Garrett ME. Periconceptional folate intake and neural tube defects. Journal of the American College of Nutrition 15(2):121-5, 1996.

3. Campbell NR. How safe are folic acid supplements? Archives of Internal Medicine 156(15):1638-44 1996.

4. Centers for Disease Control and Prevention. CDC Surveillance Summaries, April 30, 1999. MMWR 1999; 48 (No. 16).

III
STATE ADDED QUESTIONS SURVEY RESULTS: ANALYSIS OF HIGH RISK GROUPS

A. FIVE A DAY & PROSTATE CANCER SCREENING

In 1991, a program to promote the eating of at least five servings of fruits and vegetables daily was initiated by the National Cancer Institute and the Produce for Better Health Foundation. Decreased risk for cardiovascular disease is one of many additional health benefits associated with a diet rich in fruits and vegetables that provide vitamins, antioxidants, other phytochemicals, and fiber.[1]

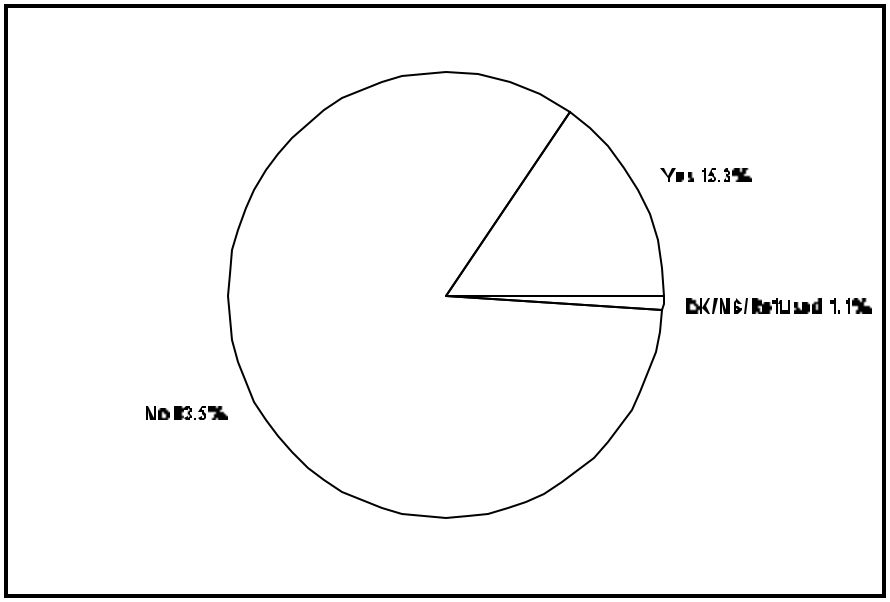

Figure III-A-1. 1998 Arizona BRFS: Have you heard of the program "Five A Day for Better Health"?.

The vast majority of respondents have not heard of the program "Five A Day for Better Health" (83.5%), according to the 1998 Arizona BRFS (Figure III-A-1). Of those reporting they have not heard of the program over half, 53.7% were less than 45 years of age, almost half (46.1% had a high school education, 73.1% are White and 77.5% are non-Hispanic.

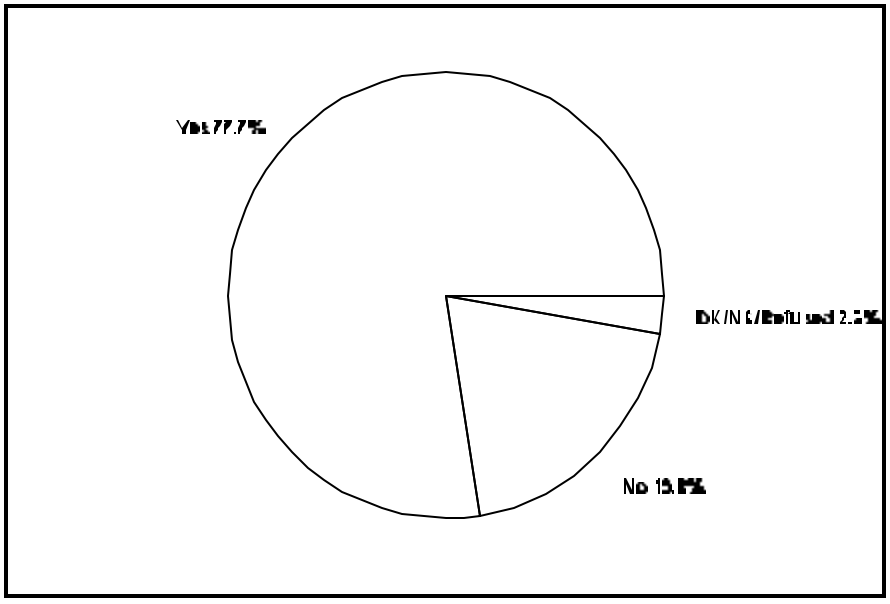

Figure III-A-2. 1998 Arizona BRFS: Have you ever had a PSA blood test?

Male respondents who were at least 50 years of age were surveyed on whether they had a Prostate Specific Antigen (PSA) blood test. Over three-quarters, 77.7% responded that they had a PSA blood test (Figure III-A-2). Persons who responded that they have had a PSA blood test were primarily 50-59 years of age (64.7%), 69.5% had at least a high school education, 72.1% are White, and 73.0% are non-Hispanic.

Recent studies have

demonstrated that the use of a prostate specific antigen (PSA) and transrectal ultrasound (TRUS) along with the digital rectal examination (DRE) may help in the early detection of prostate cancer.[2]

References

1. Centers for Disease Control and Prevention. CDC Surveillance Summaries, October 15, 1999 MMWR 1999 48 (No. 40).

2. Centers for Disease Control and Prevention. CDC Surveillance Summaries, June 12, 1992 MMWR 1992 41 (No. 23).

APPENDIX I.

1998 Arizona Demographic Profile	
GROUPS	PERCENTAGE
Sex	
Male	48.7
Female	51.3
Age	
18-24	12.5
25-34	20.0
35-44	21.1
45-54	16.6
55-64	11.3
65+	18.6
Education	
Less Than High School	13.7
High School Graduate or GED	43.1
Some College or Tech School	26.6
College Grad	16.5
Income	
< $15,000	8.4
$15-$24,999	13.8
$25-$49,999	30.5
$50-$74,999	5.9
$$75,000	3.2
Unknown/Refused	38.2
Race	
White	73.8
Non-White	25.6
Ethnicity	
Hispanic	20.3
Non-Hispanic	79.6

Source: Weighted Percentages from the 1998 Arizona BRFS Sample.

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