

# Arkansas Healthy Aging Report



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**A Profile of Older Adults in Arkansas  
2004**

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The image of the butterfly was chosen for our cover because we view aging as the process by which we emerge into our full maturity - much like the butterfly passes through the caterpillar stage and emerges from the chrysalis in its beautiful, mature adult form.

## **Dedication**

This Arkansas Healthy Aging Report is a project that my colleagues and I have been working on for two years. The day before Fay Boozman's untimely death, I proudly brought the final draft by his office for him to read. I was looking forward to his feedback, because I felt sure he would be as pleased with the final product as he had been with the Preface on which he'd already placed his signature.

After some deliberation and discussion, the consensus was to retain his signature on the Preface. To remove it just didn't seem fair, particularly in light of a hallway conversation with him about three years ago--not long after I joined the Health Department staff. He stopped me in the hall one day to tell me that his understanding of public health had changed as the result of something I had included in a Public Health Grand Rounds presentation. He told me that he had suddenly realized that, if we are physically active and eat right and take care of ourselves, we in Arkansas don't have to become feeble as we get old. It was as simple and straightforward as that.

Since his death, many people have spoken of Dr. Boozman's humility and gentleness. What also stands out is how much he valued other people. He could learn from anybody. I came away from that hallway conversation believing that he genuinely valued me and the contribution that I could make to the Agency and to the State. It made me more determined than ever to do a good job and make a difference for Arkansas.

So with that in mind, this report is dedicated to Dr. Boozman. It is one small way of thanking him for his example of servant leadership and for the encouragement he gave to me and so many others as we embarked on our careers in public health. By his influence, I am beginning to believe that it truly is possible for Arkansas to become the healthiest state in the country.

Jennifer Dillaha, MD

## Preface

In Arkansas and throughout the country, there is an emerging emphasis on aging issues. This is the result of the convergence of several forces including:

- A longevity revolution in which more people are living longer and the proportion of older adults in the population is increasing rapidly,
- The maturation of the baby boomer generation,
- The rising cost of health care, and
- Recent research indicating that disease and disability are not inevitable consequences of aging.

In 2000, 14 percent of Arkansans were 65 years and older. By 2025, that percentage is expected to increase to 24 percent. This increase will mean that one out of every four Arkansans will be 65 or older, which will likely result in a significant increase in health care utilization.

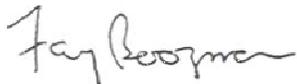
Along with these aging issues, there is an epidemic of obesity among Arkansans of all ages. As a result, more of the population is experiencing chronic diseases and related disabilities at younger ages. Over time, this alarming rise in obesity will continue to increase rates of diabetes, heart disease, cancer, stroke, and other chronic diseases among older adults.

Unfortunately, these conditions are co-occurring with decreased state and federal revenues, and availability of state and federal funds to provide the services required to care for such a large unhealthy population with a heavy burden of chronic disease and disability.

However, certain chronic diseases could be avoided or reduced by adopting healthier lifestyles that include regular physical activity, good nutrition and avoidance of tobacco. In comparison to the costs of health care, adopting healthier lifestyles are relatively inexpensive measures to implement.

To address the triple threat posed by our aging population, high rates of chronic disease, and decreased financial resources, those in state and local governments, public health, health care delivery, community organizations, and businesses need to expand health promotion among Arkansans of all ages. These concerns are highlighted in the Governor's Healthy Arkansas Initiative, which focuses on increasing physical activity, improving nutrition, and promoting smoking cessation among all Arkansans. Healthy Arkansas strategies involving older Arkansans will be key to addressing this triple threat, because healthy lifestyles among older adults are critical to preventing disability, and maintaining functional capacity among those with frailties and disabilities.

Health promotion will require new efforts to remove barriers to active and healthy lifestyles, address the special needs of older adults, and deliver programs in communities where adults work, live and socialize. This report will help inform current thinking and stimulate the type of public discussion needed to change the approach to public health and to make Arkansas the healthiest state in the country.



Fay Boozman, MD, MPH  
Director

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## **Our Philosophy**

Adults in Arkansas can improve their quality of life as they age, if given access to appropriate information, resources, and health services that encourage and promote healthy lifestyle choices in their daily routine. It will take the involvement of entire communities to recognize and address the barriers to such lifestyle changes and develop ways to successfully implement them.

## **Purpose**

The goal of this report is to describe the demographics and health status of older Arkansans. In doing so, this report can help policy makers, health services providers, and the public to:

- anticipate the needs of Arkansans as they age,
- stimulate discussion regarding public policy,
- inform the wise allocation of funds,
- promote healthy lifestyles among the aging population, and
- stimulate a shift in the paradigm from disease care to health care.

This report is intended to be a guide in efforts to improve services and opportunities for older Arkansans. A review of this information makes it clear that one organization alone cannot sufficiently address all the issues and needs of the aging population. Political, state, and community commitments are needed, along with financial resources, to develop solutions to effectively and efficiently meet the challenges of an older population and to enhance the system of services to meet current and future demand. Therefore, this report was written with the needs of advocates, educators, policy makers, program and community planners, and service providers in mind.

The focus of this report is on demographic and health status information, although the complete description of needs and issues important for the aging population includes a broader range of topics. This focus is intentional as a first step in describing the issues and concerns of this population. Future reports will cover health care access, utilization and the burden of costs for older Arkansans.

Information in this report was summarized from numerous sources and referenced to allow the reader to identify the source. However, it should be noted that resources were not available to address some important health issues, such as mental health and incontinence.

## Highlights

The number of older Arkansans is rapidly increasing. It is estimated that the population of Arkansans aged 65 years and older will double between 2000 and 2025. In 2025, approximately one in every four Arkansans will be over the age of 65.

Arkansas mirrors the nation in the leading causes of death for older adults. Some of the leading causes of death in Arkansans aged 65 years and older are as follows:

- **Heart disease and stroke** account for more than 38 percent of all deaths in Arkansas. Arkansas has the highest stroke death rate in the United States.
- **Cancer** is the second leading cause of all deaths in Arkansas with approximately 6,000 deaths per year (21 percent of all deaths for 2000). Although many cancer deaths could be prevented if found early through screening and treatment, many older adults are not receiving regular screenings as recommended.
- **Chronic lower respiratory diseases** are the fourth leading cause of death among older Arkansans. Arkansans aged 65 and older have 10 times the death rate compared to Arkansans aged 45-64 years.
- **Influenza and pneumonia** are the fifth leading cause of death among older Arkansans. Death rates due to influenza and pneumonia increase with age among Arkansans aged 65 and over. Although immunizations can protect against illness and death, only 69 percent of this population received them in 2002.
- Older Arkansans suffer from a disproportionate share of the **diabetes** burden (14.9 percent) compared to their younger counterparts (2.7 percent). Older Arkansans who are African-American have even a greater burden (25 percent higher than older Caucasians) of disease.
- **Alzheimer's disease** is the seventh leading cause of death among older Arkansans. In 2000, an estimated 27 percent of Arkansans aged 65 years and older had Alzheimer's disease. By 2050, the number of Arkansans with Alzheimer's disease is expected to triple.
- **Unintentional injuries** are the ninth leading cause of death among older adults in Arkansas. In 2000, 90 percent of unintentional injury deaths among Arkansas adults aged 85 years and older were due to fall-related injuries.

Common causes of disability among older Arkansans include:

- One million Arkansans, or 39 percent of the Arkansas population, suffer from **arthritis** and related conditions. The prevalence of arthritis is 46 percent in the 45-64 age group and 64 percent among adults aged 65 years and older. The majority of persons (61 percent) hospitalized for arthritis are 65 years and older.
- **Osteoporosis** increases with age and is greater among women than men. In 2002, approximately 8.5 percent of Arkansas women aged 50 and older had osteoporosis. By 2020, it is estimated that over 12 percent of Arkansas women aged 50 and older will have osteoporosis.
- **Oral diseases and conditions** are common among older Arkansans. In 2002, 59 percent of Arkansans aged 65 and older had lost six or more teeth due to decay or gum disease. In 2002, 46 percent of Arkansans aged 65 and older had not visited a dentist or dental clinic within the past year.

Health-related behaviors also contribute to early death and disability in the aging population.

- **Physical inactivity** is a leading contributor to disease and disability. In Arkansas, the amount of physical activity decreases with age. Approximately 66 percent of Arkansans aged 55-64 participated in any physical activity during the past month compared to 62 percent of Arkansans aged 65 and older.
- Good **nutrition** is vital to maintaining the health of older Arkansans. However, only 30 percent of older Arkansans met the 5-a-day recommendations for fruits and vegetable consumption in 2002.
- **Tobacco use** is the leading preventable cause of death. In 2002, 11 percent of older Arkansans currently smoked.
- **High blood pressure and high cholesterol** are the leading modifiable risk factors for heart disease and stroke. It is estimated that over 50 percent of older Arkansans have high blood pressure and 44 percent have high cholesterol.
- Over 30 percent of Arkansans 65 years and older are **overweight** and approximately 20 percent are **obese**. Obesity is likely to become a greater problem for older adults in the future. This trend is of particular concern because of the association of obesity with other leading causes of death and disability, such as heart disease and stroke, diabetes, and arthritis.

A population where one out of every four persons is an older adult could result in many potential benefits such as caregiving, civic engagement, and historical and societal wisdom. This potential opportunity is tempered, however, by the fact that older adults experience the highest rates of chronic diseases and conditions. This results in prolonged disability, poor quality of life, premature death, and high health care costs. This does, and will continue to, occur in Arkansas where many older adults live in poverty and are unable to afford the health care and services they need. As a result the number of older Arkansans dependent on family members or state services is expected to increase dramatically. The increase in the aging population will place increasing demands on the public health system, medical and social services, and the health care financing and delivery systems. For advocates, educators, policy makers, program and community planners, and service providers, the concerns highlighted in this report make the issues surrounding Arkansas' older population important and necessary topics of consideration.

# The Aging Population in the United States

The number of Americans 65 years and older will double between 2000 and 2030.

One in every five Americans will be 65 years or older by 2030.

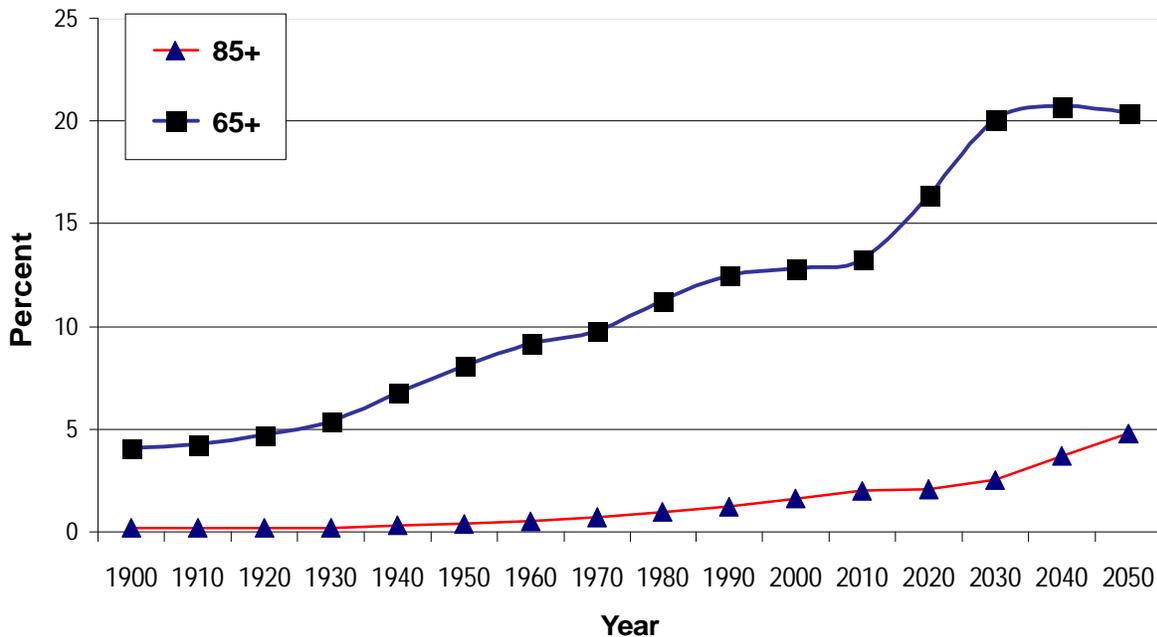
- In **1990** there were approximately **31** million Americans aged 65 years or older.
- In **2000** there were approximately **35** million Americans aged 65 years or older.
- In **2020** there will be approximately **53** million Americans aged 65 years or older.
- In **2030** there will be approximately **70** million Americans aged 65 years or older.
- In **2050** there will be approximately **80** million Americans aged 65 years or older.

According to the Census Bureau, the number of people in America aged 65 or older increased from 3 million in 1900 to nearly 35 million in 2000, an 11-fold increase. By 2030, the number is expected to increase to 70 million.

projected to increase from 12.4 percent in 2000 to 19.6 percent in 2030, and the number of persons aged 80 years and older is expected to increase from 9.3 million in 2000 to 19.5 million in 2030. The oldest old (85 plus) are the fastest growing segment of the older adult population. (Census Bureau, 2003)

In the United States, the percentage of the population aged 65 years and older is

**Figure 1: Percentage of United States Population: 1900-2050 Aged 65 Years and Older and Aged 85 Years and Older**



Source: U.S. Census Bureau, 1999

Although the growth of the older population slowed during the 1990s due to the relatively small number of births during the Great Depression, the older population is expected to increase dramatically between 2010 and 2030. The dramatic increase in older Americans shown in Figure 1 is due to a variety of reasons, including:

- the large baby boom generation (United States Department of Health and Human Services, 2001),
- an increase in life expectancy, and
- advances in medical technology and public health services that have shifted the major causes of death from infectious diseases to chronic diseases.

## Baby Boomers

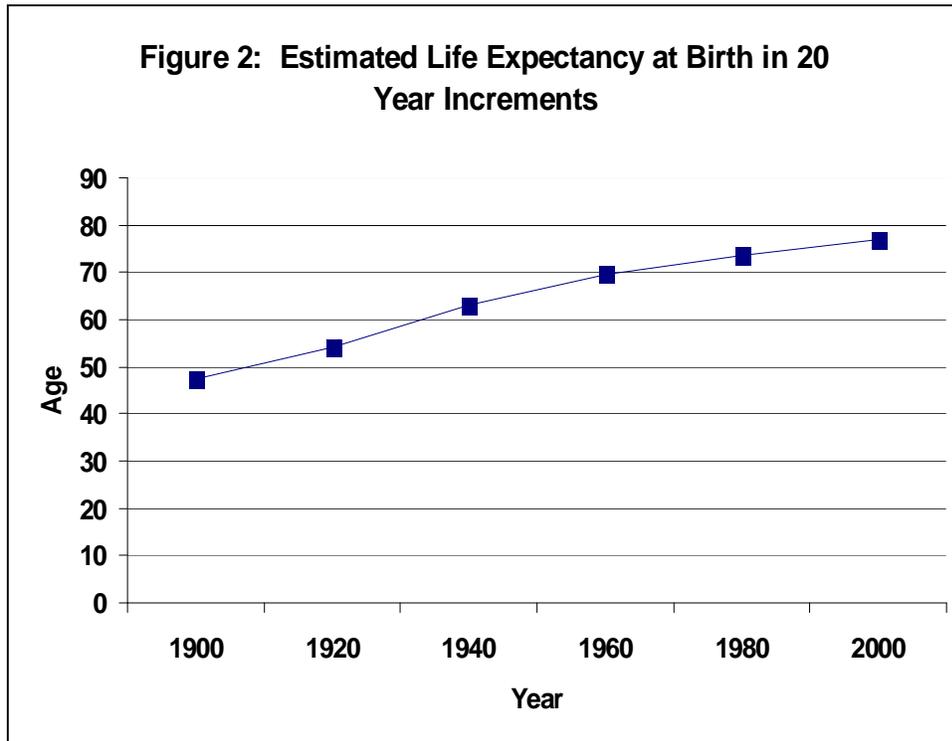
As the baby boom generation (those born between 1946 – 1964) reaches retirement age, the increase of adults aged 65 and

over is expected to accelerate rapidly. Most of this rapid growth will occur between 2010 and 2030 when the baby boomers become the senior boomers. Because of the size of this group, the need for health and social support systems is likely to be enormous, placing great demands on the public health system, as well as medical and social services (United States Department of Health and Human Services, 2001).

## Life Expectancy

Life expectancy for Americans has increased dramatically in the past 100 years. In 1900, life expectancy at birth was about 49 years. By 1960, life expectancy had increased to 70 years, and by 2000 life expectancy at birth was 79.5 years for women and 74.1 years for men (CDC, Wonder, 2003).

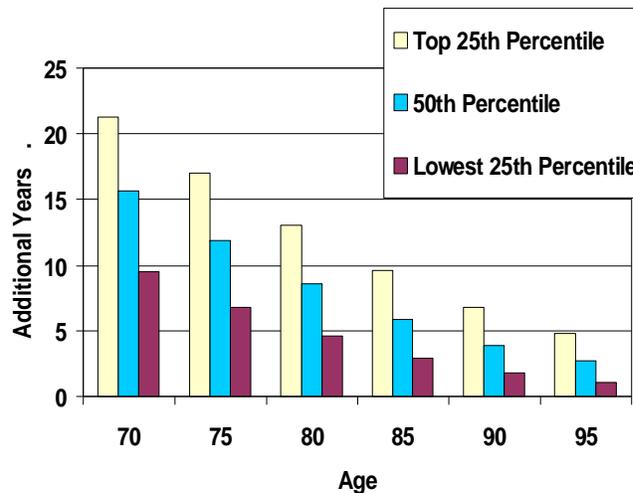
Calculations of life expectancy for adults are based on an individual's current age.



For example, the average life expectancy for a girl born in the year 2000 was 79.5 year (Figure 2). Life expectancy for a 75 year old woman in 1997 was an average of 12 additional years (i.e. 87 total years of age) (Figure 3).

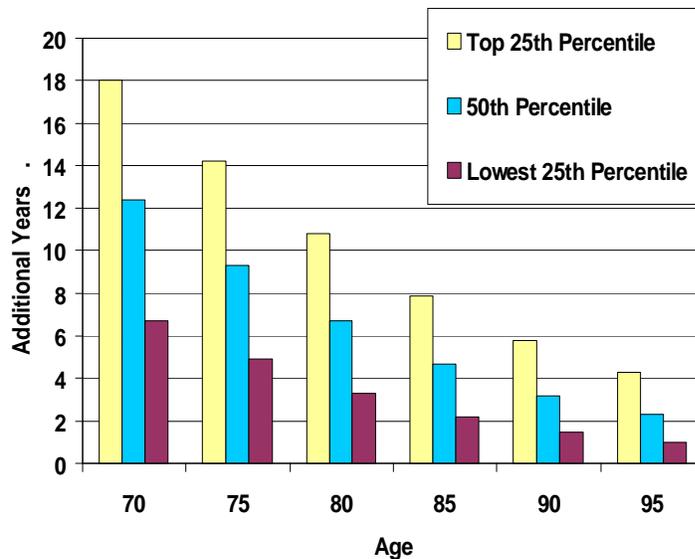
Figures 3 and 4 show life expectancies for older adults in the U.S. population according to age and gender. Differences between upper, middle, and lower quartiles show that variability in life expectancy exists at each age. By “quartiles” we mean, for example, 25 percent of 75-year-old women are expected to live 17 more years, 50 percent are expected to live at least 11.9 more years, and 25 percent are expected live less than 6.8 additional years.

**Figure 3: Upper, Middle, and Lower Quartiles of Life Expectancy for Women at Selected Ages**



Source: National Center for Health Statistics, Life Tables of the United States, 1997

**Figure 4: Upper, Middle, and Lower Quartiles of Life Expectancy for Men at Selected Ages**

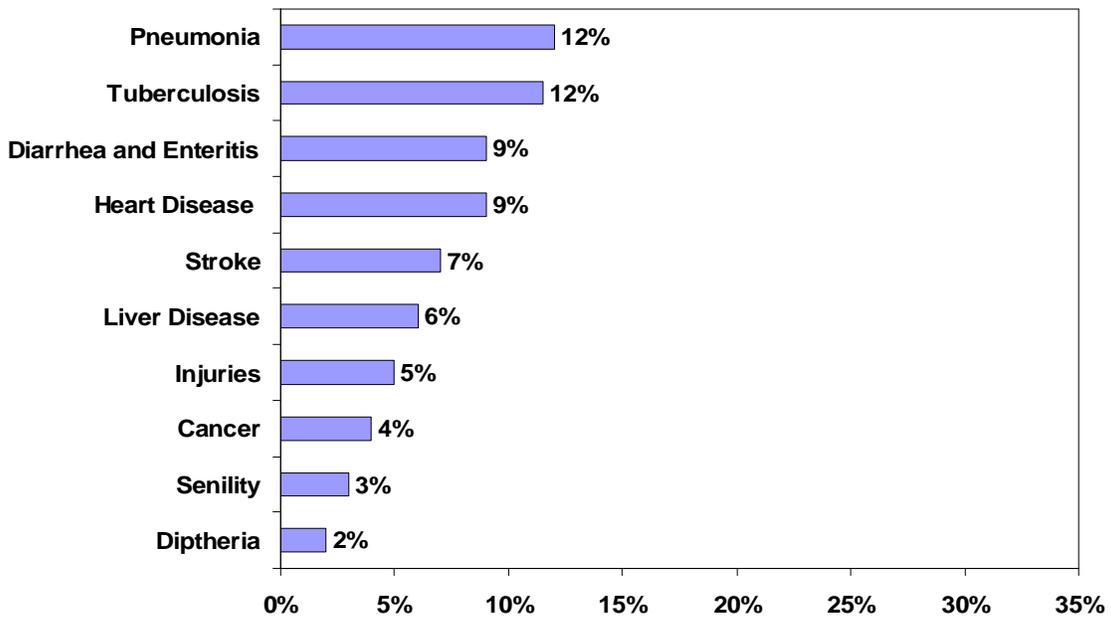


Source: National Center for Health Statistics, Life Tables of the United States, 1997

## **Shift from Infectious Diseases to Chronic Diseases**

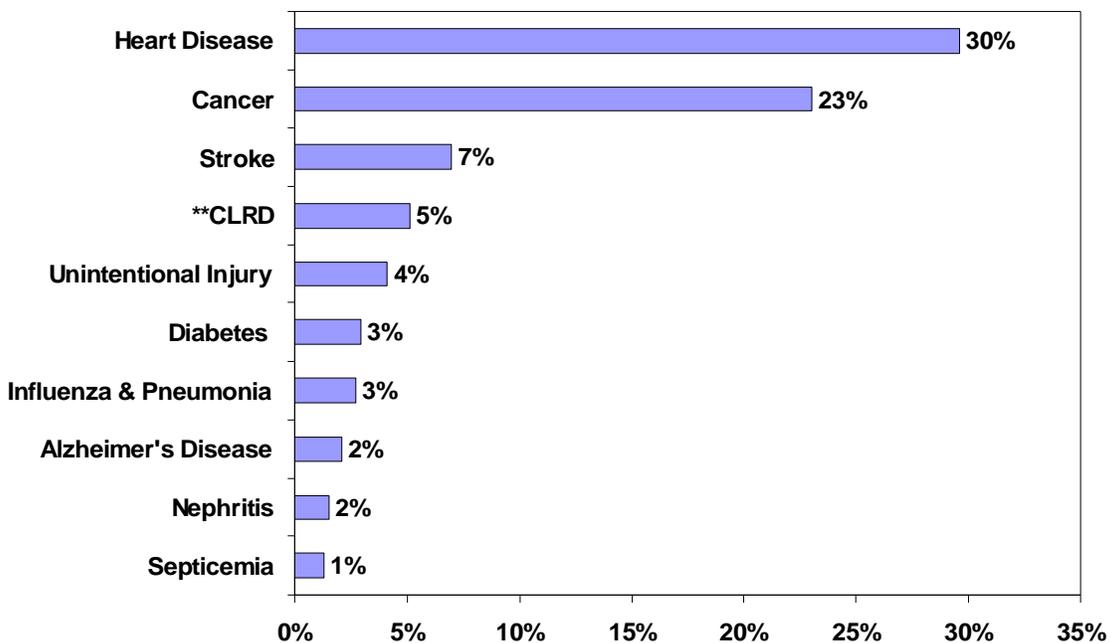
Over the last century, the United States experienced a shift in the leading causes of death from infectious diseases to chronic diseases. In 1900, the leading causes of death were pneumonia, tuberculosis, and diarrhea and enteritis (Figure 5). Together with diphtheria, these diseases caused one third of all deaths. In 2000, heart disease and cancer accounted for 56 percent of all deaths (Figure 6) (CDC, WISQARS, 2003). This shift from infectious diseases to chronic diseases is due to declines in acute conditions, as the result of public health interventions that achieved improvements in water quality, sanitation, hygiene, animal and pest control, as well as the improvement resulting from delivery of vaccinations, medications, and other medical services, according to the Morbidity and Mortality Weekly Report (CDC, MMWR, 1999). The shift to chronic diseases is also a factor in helping Americans live longer.

**Figure 5: Top Ten Leading Causes of Death as a Percentage of All Deaths--United States 1900**



Source: Centers for Disease Control and Prevention MMWR, 1999

**Figure 6: Top Ten Leading Causes of Death as a Percentage of All Deaths--United States 2000**



\*\*Chronic Lower Respiratory Disease

Source: Centers for Disease Control and Prevention WISQARS, 2002

## The Aging Population in Arkansas

It is estimated that the population of Arkansans 65 years and older will double between 2000 and 2025. In 2025, approximately one in every four Arkansans will be aged 65 and older.

Arkansas had a population of 2.6 million people in 2000, the 33<sup>rd</sup> most populous state in the nation. The total population of Arkansas is projected to increase by 14 percent by 2020. By 2025, Arkansas is projected to be the 32<sup>nd</sup> most populous state with 3.1 million people.

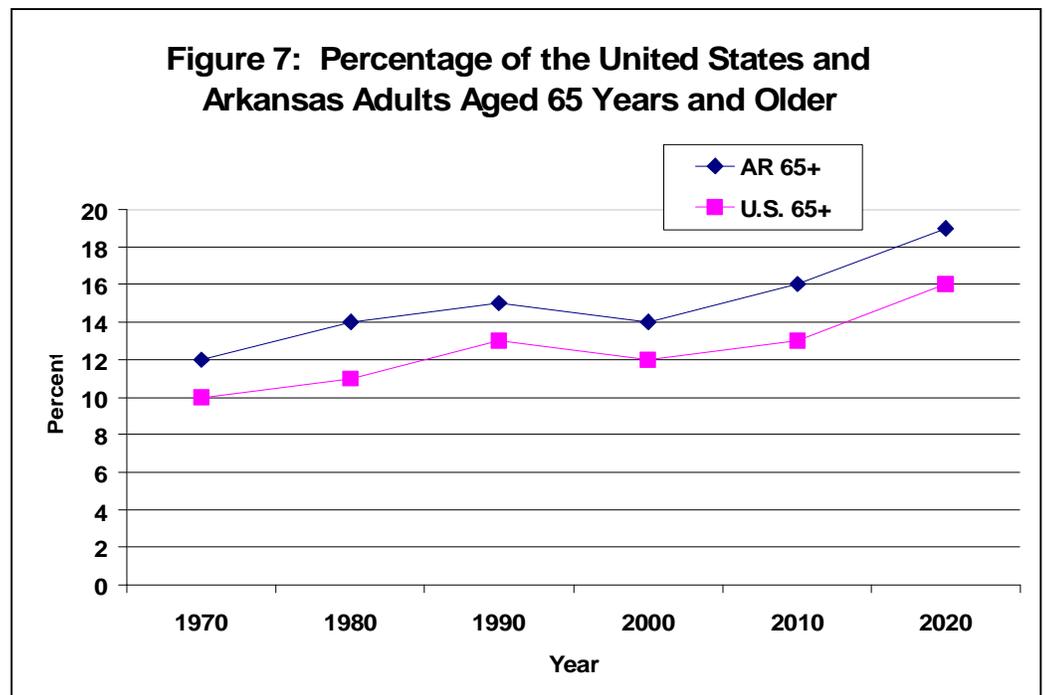
The proportion of Arkansas' population aged 65 and older is expected to increase from 14.5 percent (359,274) in 1995 to 23.9 percent (731,000) in 2025 (Figure 7). This is a higher percentage than the overall increase for the United States. Arkansas is ranked fourth in the United States for

percentage of adults aged 65 years and older (Table 1).

Arkansas is projected to have the fifth highest proportion of elderly in 2025 (Population Paper from the U.S. Census). Arkansas is also expected to rank tenth in the nation for adults over 84 years of age by the year 2020.

**Table 1: Top Ten States with the Highest Percentage of Adults Aged 65 years and Older, 2001-2002**

Rank	State	65 and Older Population	Percent of the Population
1	Florida	2,707,040	17
1	West Virginia	290,990	17
3	Maine	203,610	16
<b>4</b>	<b>Arkansas</b>	<b>387,710</b>	<b>15</b>
4	Montana	132,430	15
4	Rhode Island	152,590	15
7	Connecticut	489,040	14
7	Kansas	375,840	14
7	New Jersey	1,169,390	14
7	New Mexico	245,820	14
7	North Dakota	85,650	14
7	Pennsylvania	1,734,900	14

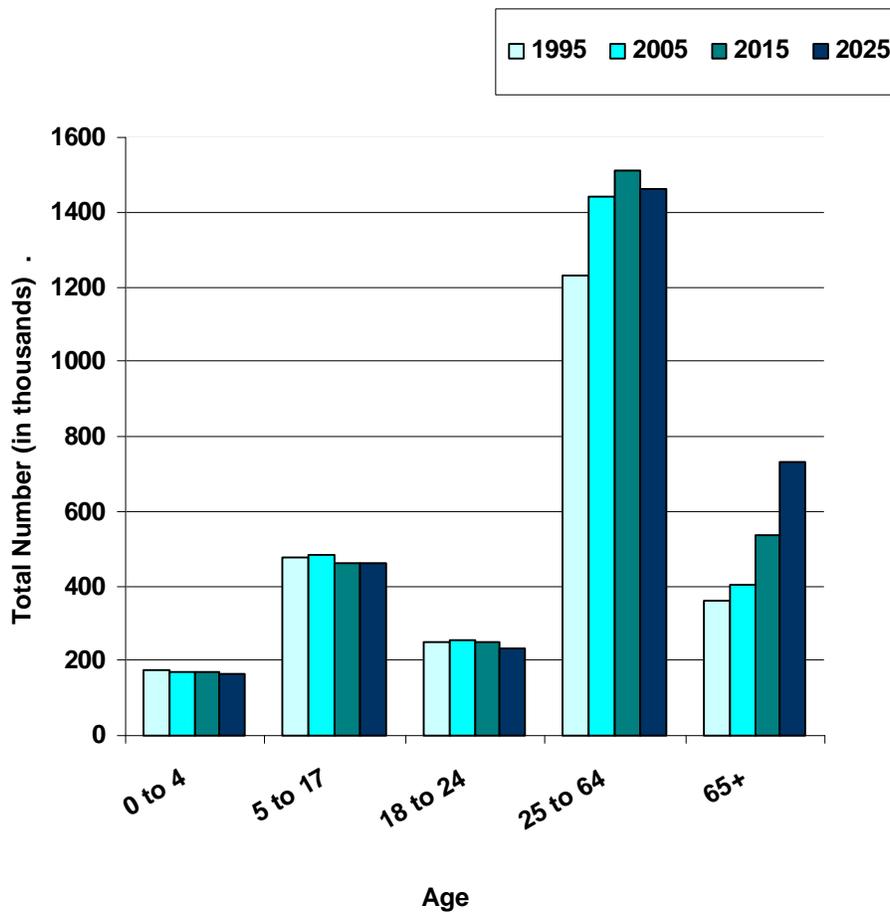


Source: U.S. Census Bureau, 2003

In 2000, approximately 30 percent (798,705) of the Arkansas population was aged 50 and older, 14 percent (377,000) of the Arkansas population was aged 65 and older, and 1.7 percent (46,492) was aged 85 and older. By 2025, the percentage of Arkansans aged 65 and older is expected to increase by 70 percent, to approximately

24 percent (731,000) of the total population in Arkansas. As seen in Figure 8, the aging population in Arkansas is expected to experience an increase in growth at a much greater rate between 1995 to 2025 than Arkansas' younger population (U.S. Census Bureau, 2003).

**Figure 8. Population of Arkansas in 10 Year Increments**



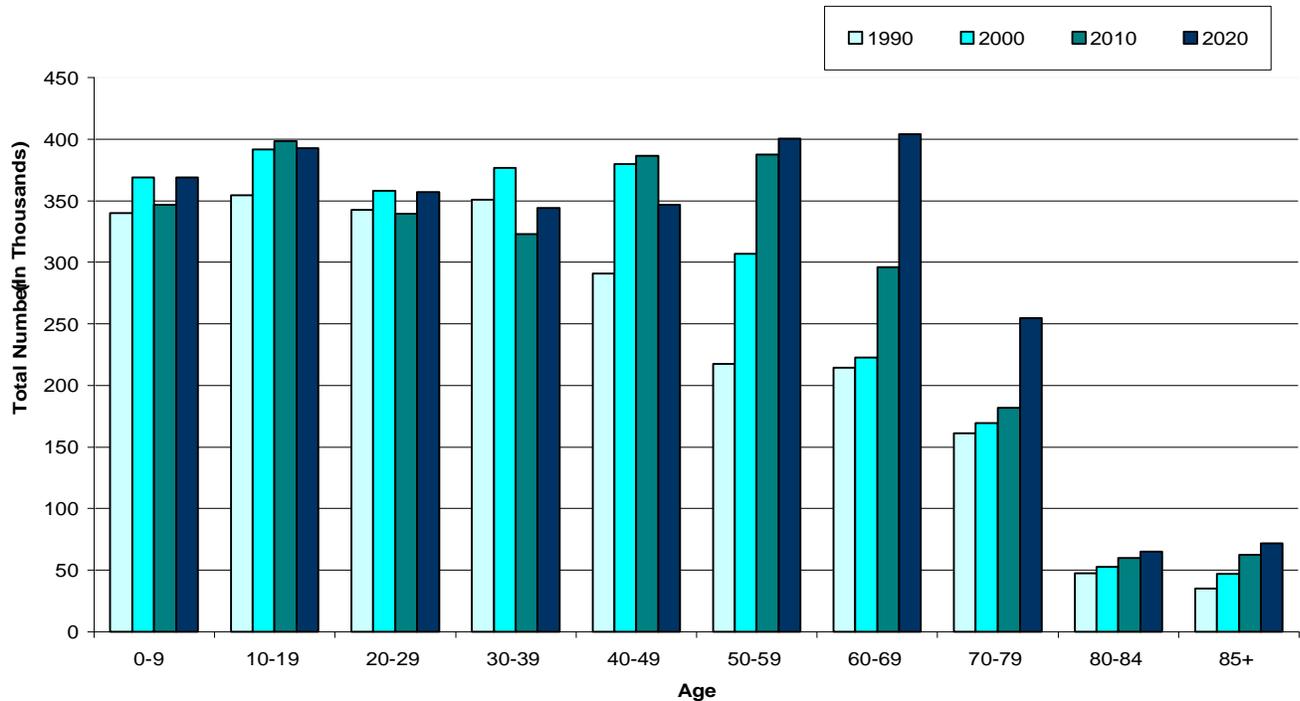
Source: U.S. Census Bureau, 2003.

Figure 9 depicts the Arkansas population in 1990, 2000, 2010 and 2020. While the number of Arkansans ages 0-9 years and 10-19 years increases only slightly from 1990 to 2020, the number of Arkansans in the age groups aged 50 and older increases greatly. Arkansans aged 50-59 years is expected to increase from 9.2 percent (217,063) in 1990 to 13.3 percent (400,404) in 2020. Arkansans aged 60-69 years is expected to increase to 13.5 percent (403,984) in 2020, from 9.1 percent (214,234) in 1990. Arkansans aged 70-79 years is expected to increase to 8.5 percent (254,497) in 2020, from 6.8 percent (160,871) in 1990. Arkansans aged 80 years and over is expected to increase to 4.6 percent (137,151) in 2020, from 3.5 percent

(82,537) in 1990 (U.S. Census Bureau, 2003).

The increase in Arkansas' aging population is occurring among adults as young as 50 years of age. In 2000, Arkansas began to see a large increase in the population between ages 50-64 years as the baby boomers began turning 50 years old. In 2010, Arkansas will see an increase in the population between ages 65-84 years as the baby boomers begin turning 65 years old. At the same time, the population ages 85 years and older will be increasing. In 1990, the number of Arkansans aged 85 and older was 35,216. In 2020, the number of Arkansans aged 85 and older is estimated to be 61,437 (an increase of approximately 50 percent).

**Figure 9. Total Arkansas Population for All Ages for 1990 and 2000, and Projections for Each Age, 2010 and 2020**

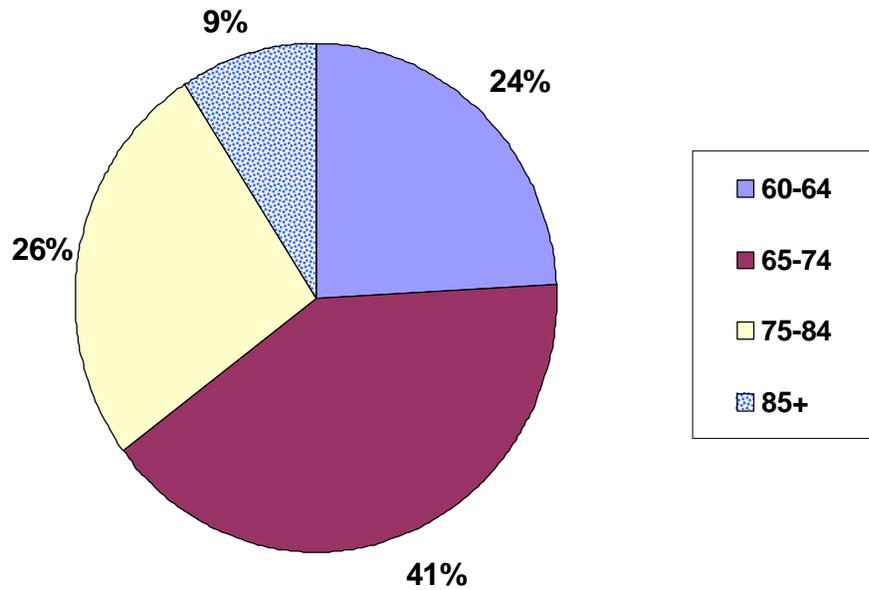


Source: U.S. Census Bureau, 2003.

In 2000, well over half of the older adults in Arkansas were between the ages of 60 and 74. As seen in Figure 10, of Arkansans aged 65 years and older living in Arkansas, nine percent are 85 years old or older. The 85 years and older age

group is of special concern, because this age group typically utilizes the most health care services (United States Department of Commerce, U.S. Census Bureau, 2003).

**Figure 10: Percentage of Arkansas Adults Aged 60 Years and Older by Age in 2000**



Source: U.S. Census Bureau, 2003.

## Distribution of the Aging Population by Region

Arkansas is divided into five public health regions by the Arkansas Department of Health. The number of Arkansans aged 65 and older increased in all regions from 1990 to 2000. The greatest increase (2-3 percent) occurred in the Northwest and Central regions. According to the U.S. Census Bureau (2003) the Northwest region (30 percent), the Central region (~25 percent), and the Northeast region (~20 percent) have the highest proportion of Arkansans aged 50 and older (as seen in Figure 11).

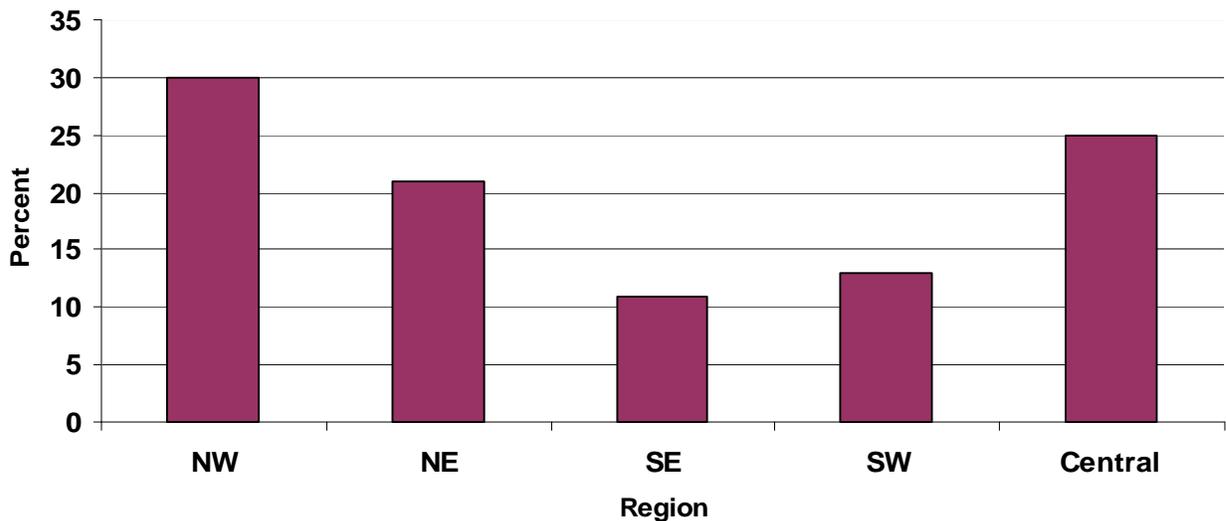
## Distribution of the Aging Population by County

There was a shift in the number of adults aged 65 and older in many counties between 1990 and 2000 in Arkansas.

Stone County has experienced the largest increase (~2 percent). Four other counties have had at least a one percent increase in the aged 65 and older population. All other counties have had no change or a decrease in the aged 65 and older population. The small changes between 1990 and 2000 reflect the low birth rate that occurred during the 1930's. Greater changes are anticipated as the baby boomers reach age 65.

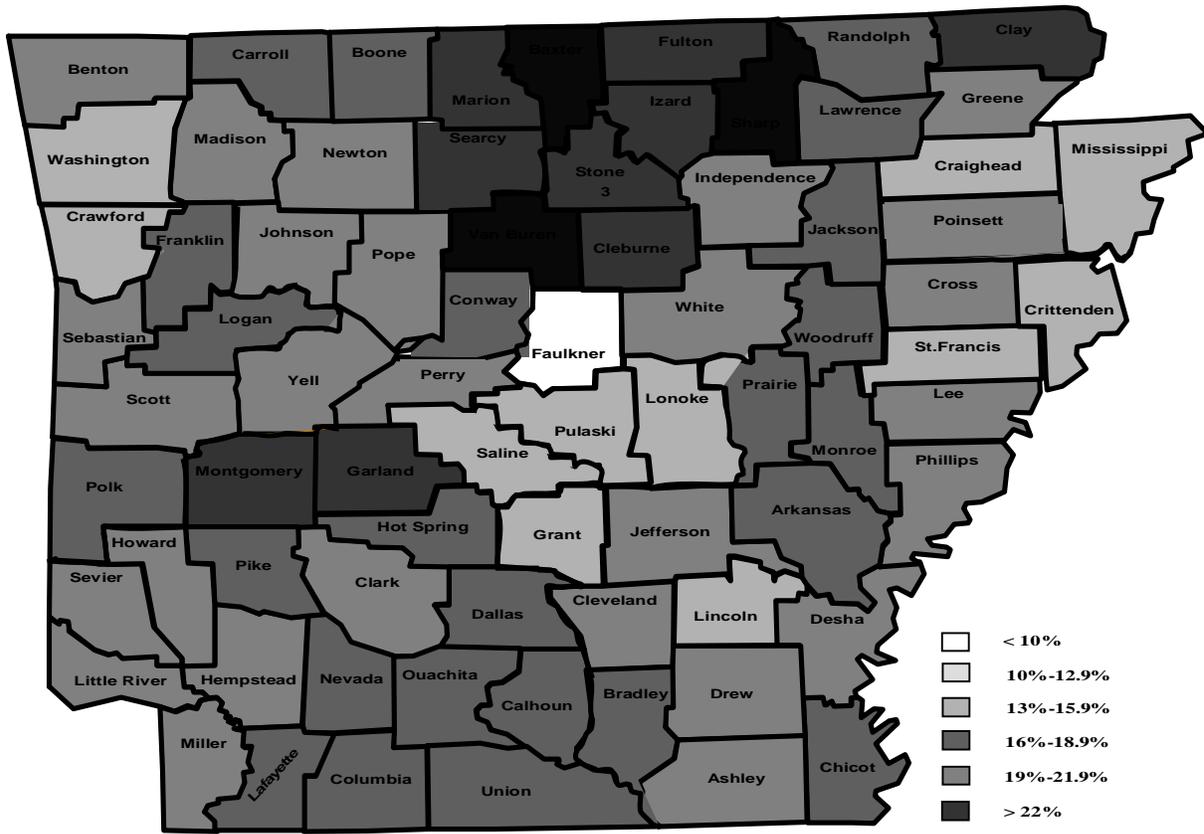
Adults aged 65 and older comprised 22 percent or more of the total population (for 2000) in three counties in Arkansas (Baxter, 22 percent, Van Buren, 23 percent, and Sharp 27, percent) (U.S. Census Bureau, 2003) (See Figure 12).

**Figure 11. Percentage of Adults Aged 50 Years and Older by Region, 2000**



Source: U.S Census Bureau, 2003.

Figure 12. Percentage of Adults Aged 65 Years and Older by County for 2000



Source: U.S. Census Bureau, 2003

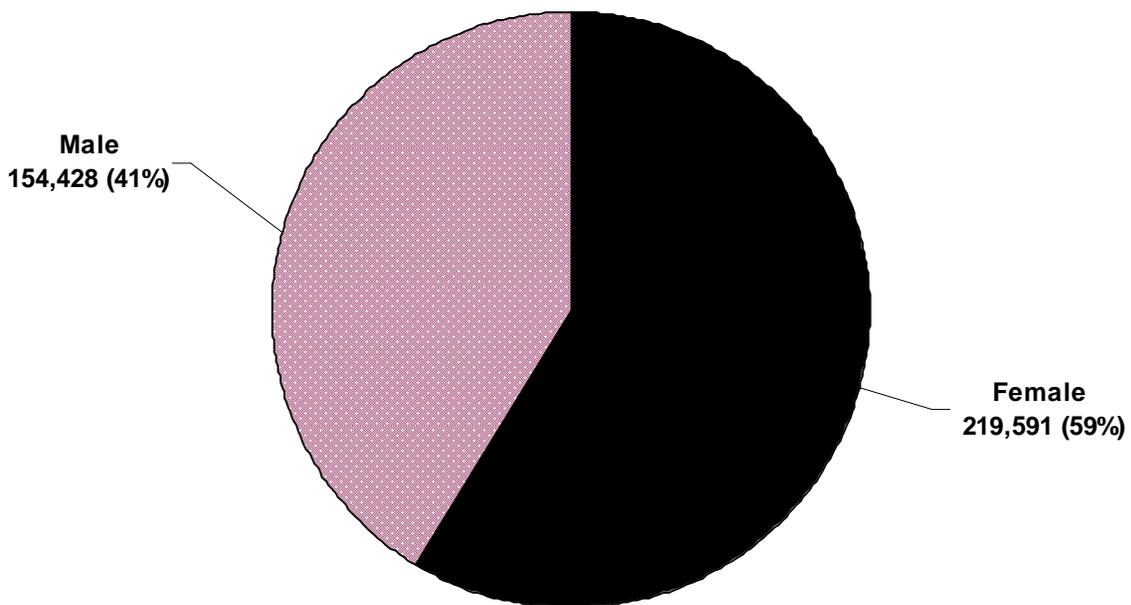
## Demographics of the Aging Population in Arkansas

The majority of Arkansans aged 65 years and older are typically Caucasian (85 percent) with an annual income less than \$25,000 (55 percent), and have completed high school (70 percent). Many are married (62 percent), living with their spouses or with other family members (63 percent).

## Gender Status

In 2000, there were 35 million persons aged 65 and older in the United States. Fifty-nine percent (20.6 million) were women and 41 percent (14.4 million) were men. This means that for every 100 men there were 143 women. Similarly in Arkansas, there were 374,019 persons aged 65 and older. Fifty-nine percent were women (219,591) and 41 percent were men (154,428). For every 100 men there were 132 women (U.S. Census Bureau, 2003).

**Figure 13. Percentage of Men and Women in Arkansas Aged 65 Years and Older**

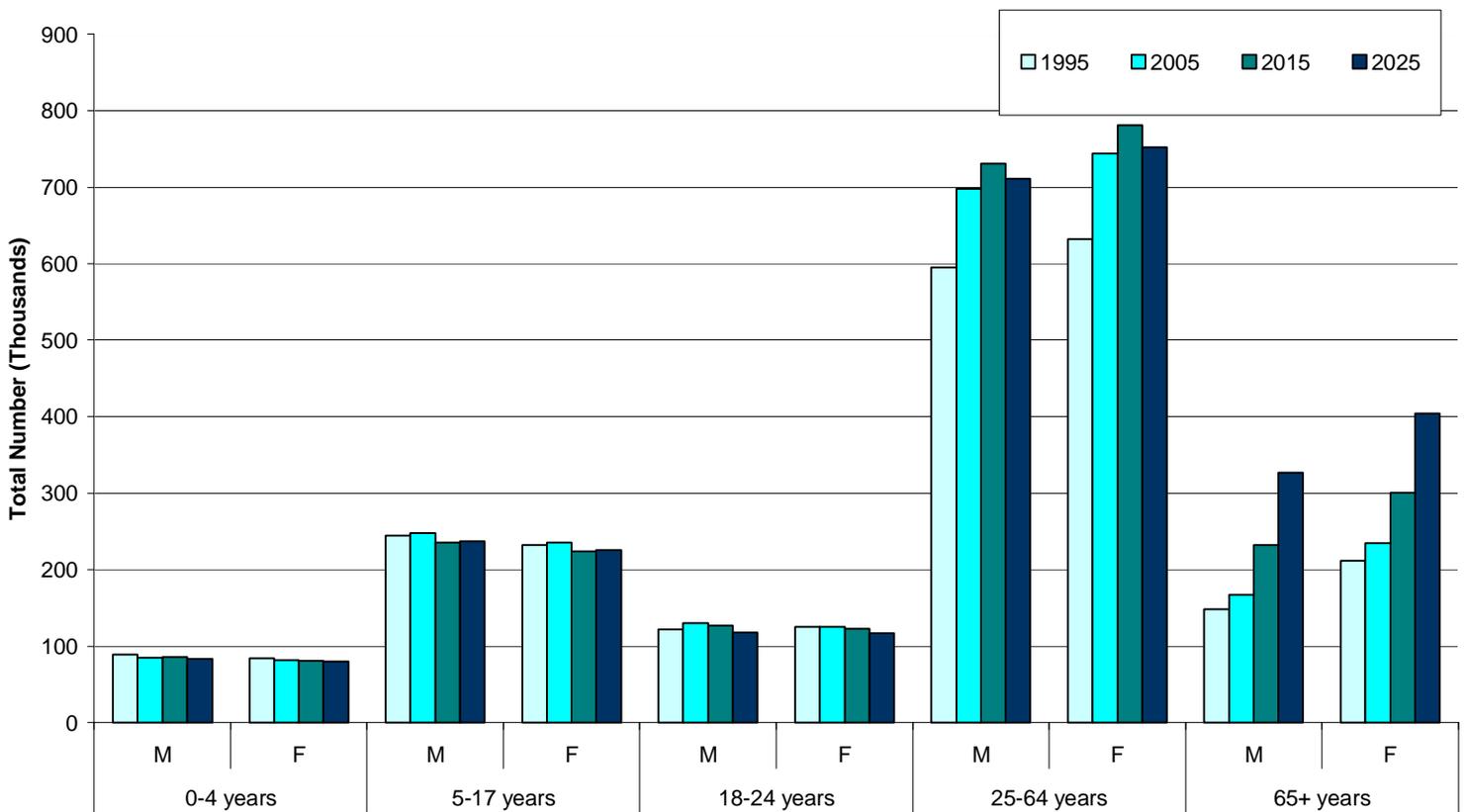


Source: U.S. Census Bureau, 2003

Figure 14 shows the projected number of persons by gender in Arkansas through the year 2025. While the number of Arkansans below 25 years remain stable or decreases slightly over time, the number of Arkansans 25-64 years of age

and those 65 and older are predicted to increase. The greatest projected increase among the groups will be the Arkansans 65 years of age and older (U.S. Census Bureau, 2003).

**Figure 14. Population of Arkansas by Men and Women in 10 Year Increments**

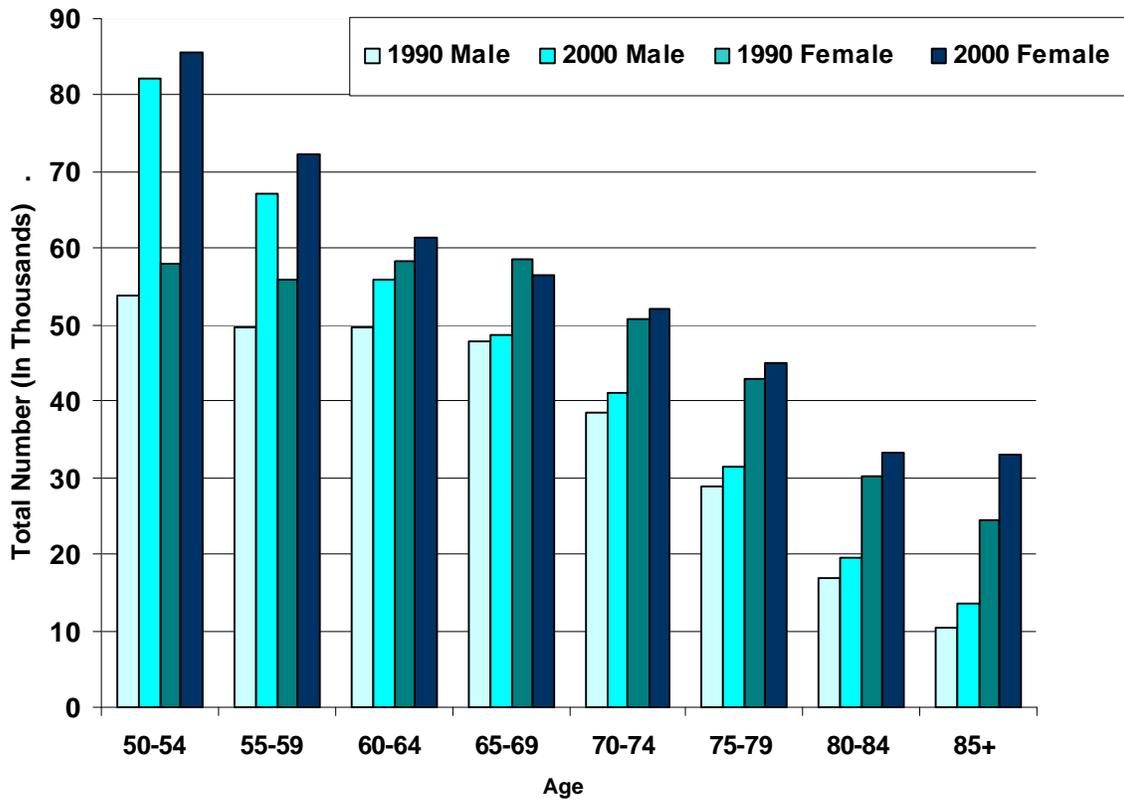


Source: U.S. Census Bureau, 2003

As Arkansans age, the difference between the number of men and women increases. In 2000, there were approximately 10,000 more women who

were aged 70 years and older compared to men the same age (Figure 15) (U.S. Census Bureau, 2003).

**Figure 15: Population of Men and Women in Arkansas for 1990 and 2000**



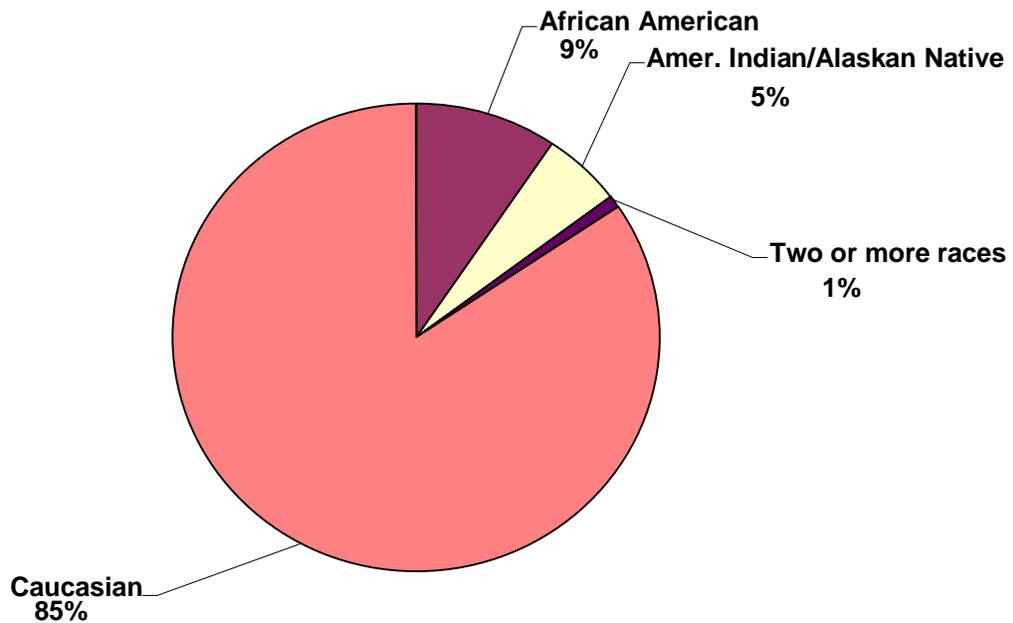
Source: U.S. Census Bureau, 2003.

## Race and Ethnic Groups

As shown in Figure 16, the majority of adults aged 65 years and older living in Arkansas are Caucasian (85 percent), followed by African American (9 percent), and American Indian/Alaska Native (5 percent). However, the burden of chronic diseases disproportionately affects African American Arkansans (U.S. Census Bureau, 2003).

The racial/ethnic makeup of the Arkansas population is changing. Arkansas is projected to have a significant increase in the proportion of African American and Hispanic residents. These changes will be reflected in the demographics of Arkansas' older adults. Specifically, the ratio of Caucasian older adult is expected to be reduced resulting in a greater diversity in the older population (U.S. Census Bureau, 2003).

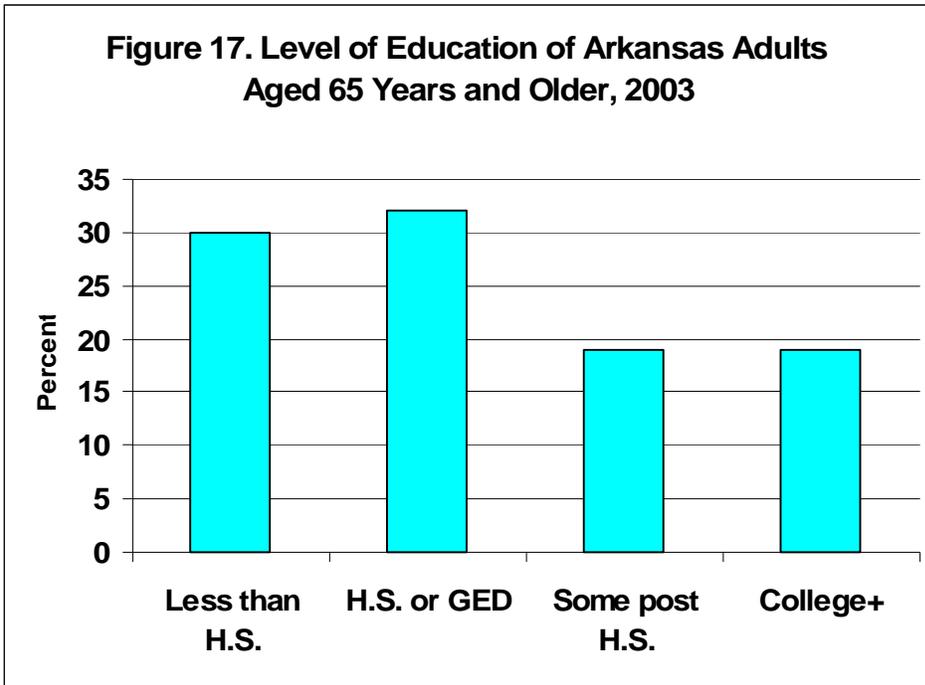
**Figure 16: Race of Arkansas Adults Aged 65 Years and Older, 2003**



Source: U.S. Census Bureau, 2003.

## Education

Of Arkansans aged 65 and older, 30 percent lack a high school diploma. Thirty-two percent have completed high school or have received their graduate equivalency degree (GED). Nineteen percent have completed some college education (Figure 17) (BRFSS, 2003).

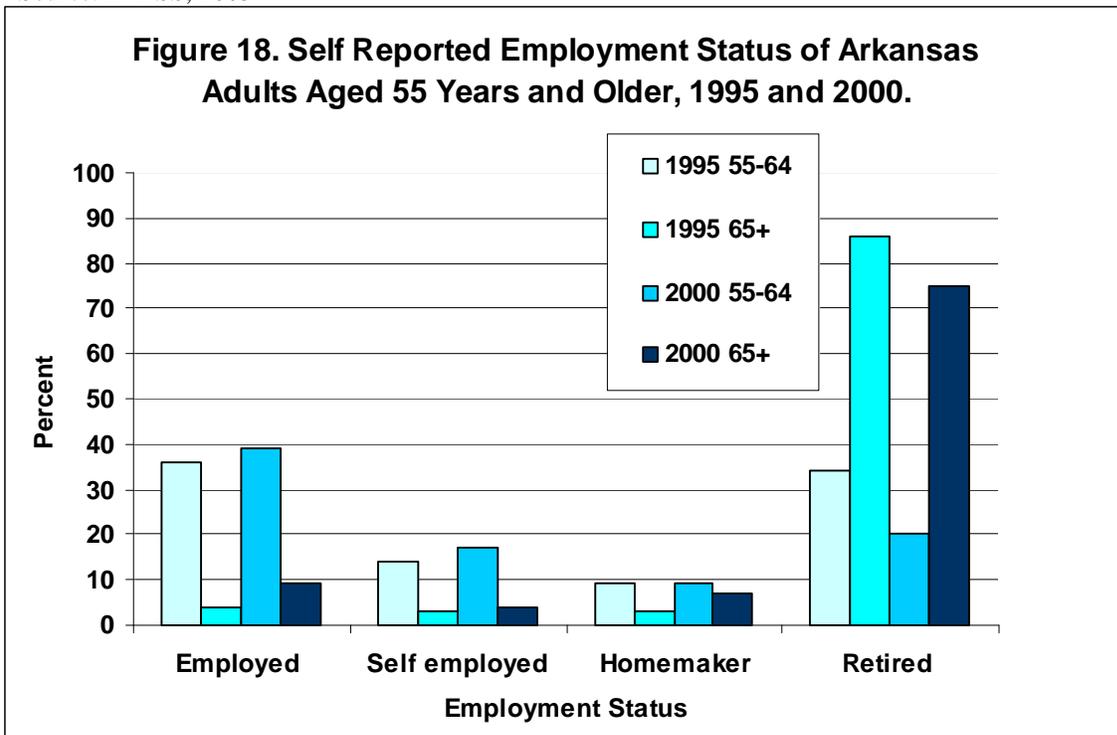


Source: BRFSS, 2003

## Employment

In 2000, the percentage of Arkansans aged 65 and older who were retired was approximately 80 percent. This was a 10 percent decrease from 1995. In 2000, the percentage of retired Arkansans aged 55-64 years was approximately 30 percent, down from 40 percent in 1995. The

number of Arkansans aged 65 and older who were employed (either full or part-time) increased from 5 percent in 1995 to 10 percent in 2000. Data were not available on the number of older Arkansans actively seeking employment (Figure 18) (CDC, 1995-2002).



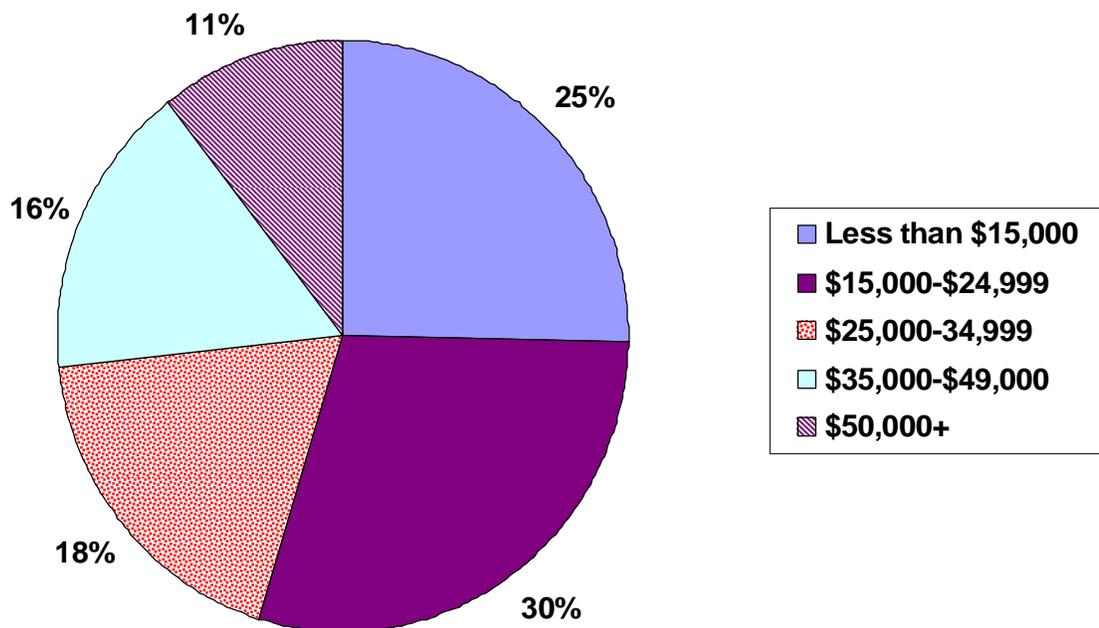
Source: CDC(1995-2002)

## Income

The majority of Arkansas' adults aged 65 years and older have an annual income less than \$25,000 (55 percent). Approximately 16 percent have incomes below the federally defined poverty level

(See Poverty Guidelines in Appendix C). Eighteen percent have an annual income of \$25,000-\$34,999. Twenty-seven percent have an annual income greater than \$35,000 (Figure 19) (U.S. Census Bureau, 2003).

**Figure 19: Annual Income of Arkansas Adults Aged 65 Years and Older in 2000**



Source: U.S. Census Bureau, 2003

Arkansas is ranked tenth in the percentage of adults aged 65 and older living in poverty (16 percent) compared to other states (Table 2). This is higher than the national average (14 percent) (Urban Institute and Kaiser Commission, 2002-2003).

In 2000, twenty-five counties in Arkansas had over 18 percent of adults aged 65 years and older living below the poverty level. In 1989, 17.8 percent of Caucasians and 47.2 percent of African Americans aged 65 years and older were below poverty level. Arkansans aged 65 years and older living alone or with non-relatives were more likely to be poor

(42.2 percent) than those living with relatives (Arkansas Department of Human Services, 2002).

In addition to those with incomes below the federal level, there are many Arkansans in the aged 65 years and older group with incomes that are very close to poverty levels. In fact, Arkansas is ranked first in the nation for the percentage of adults aged 65 and older living below 150 percent of the federal poverty level. By this definition, nationally 24 percent of adults over age 64 live in poverty, while 33 percent (121,000) of older Arkansans live in poverty (U.S. Census Bureau, 2003).

**Table 2: Top Ten States with the Highest Percentage of Adults Aged 65 Years and Older Living in Poverty\*, 2001-2002**

Rank	State	% of 65+ population living in poverty
1	Mississippi	26
2	District of Columbia	23
3	South Carolina	21
4	Texas	19
5	Alabama	18
5	Georgia	18
5	New Mexico	18
8	New York	17
8	North Carolina	17
<b>10</b>	<b>Arkansas</b>	<b>16</b>
10	Hawaii	16
10	Louisiana	16
10	Tennessee	16

\*Persons in poverty are defined as those who make less than 100% of the federal poverty level (see Appendix C for Poverty Guidelines)

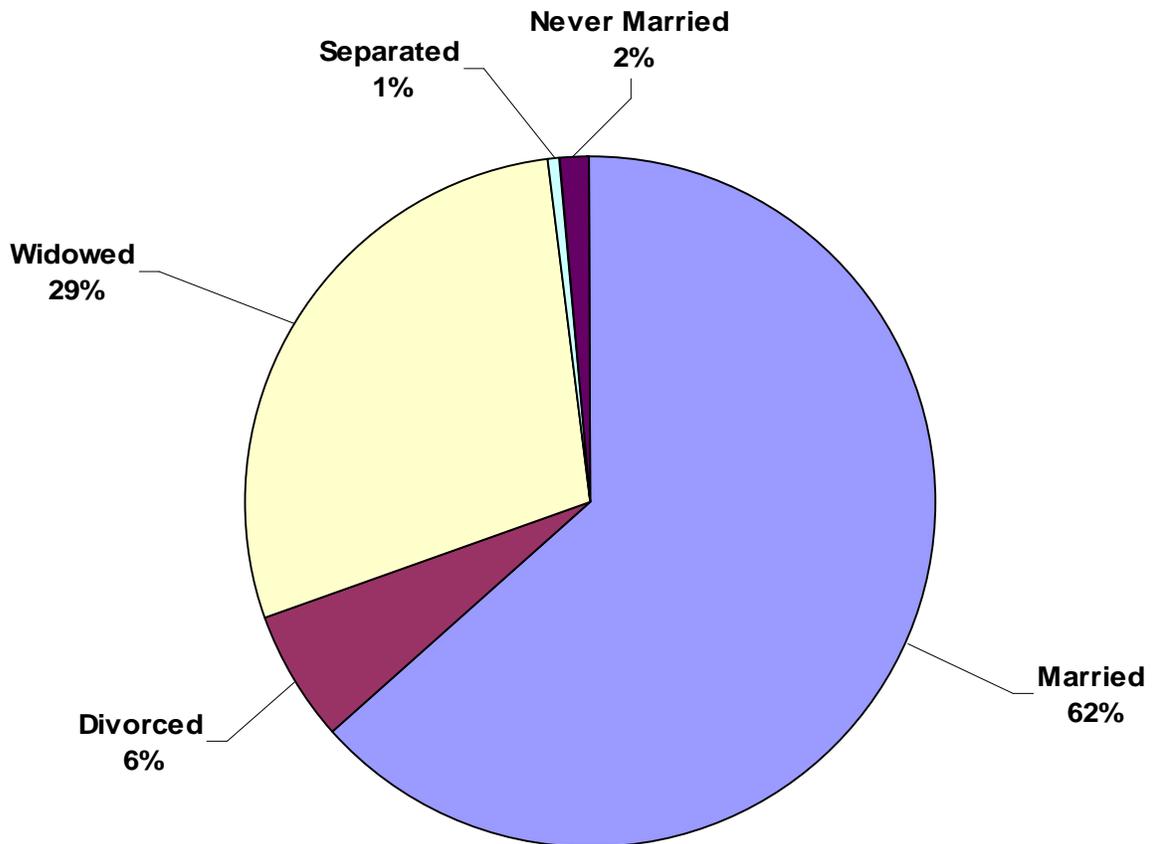
Source: Urban Institute and Kaiser Commission, 2002-2003.

## Relationship Status

As seen in Figure 20, most Arkansans aged 65 and older are married. In 2000, 62 percent of Arkansans aged 65 and

older reported being married and 29 percent reported being widowed (BRFSS, 2003).

**Figure 20. Marital Status of Arkansas Adults Aged 65 Years and Older, 2000**



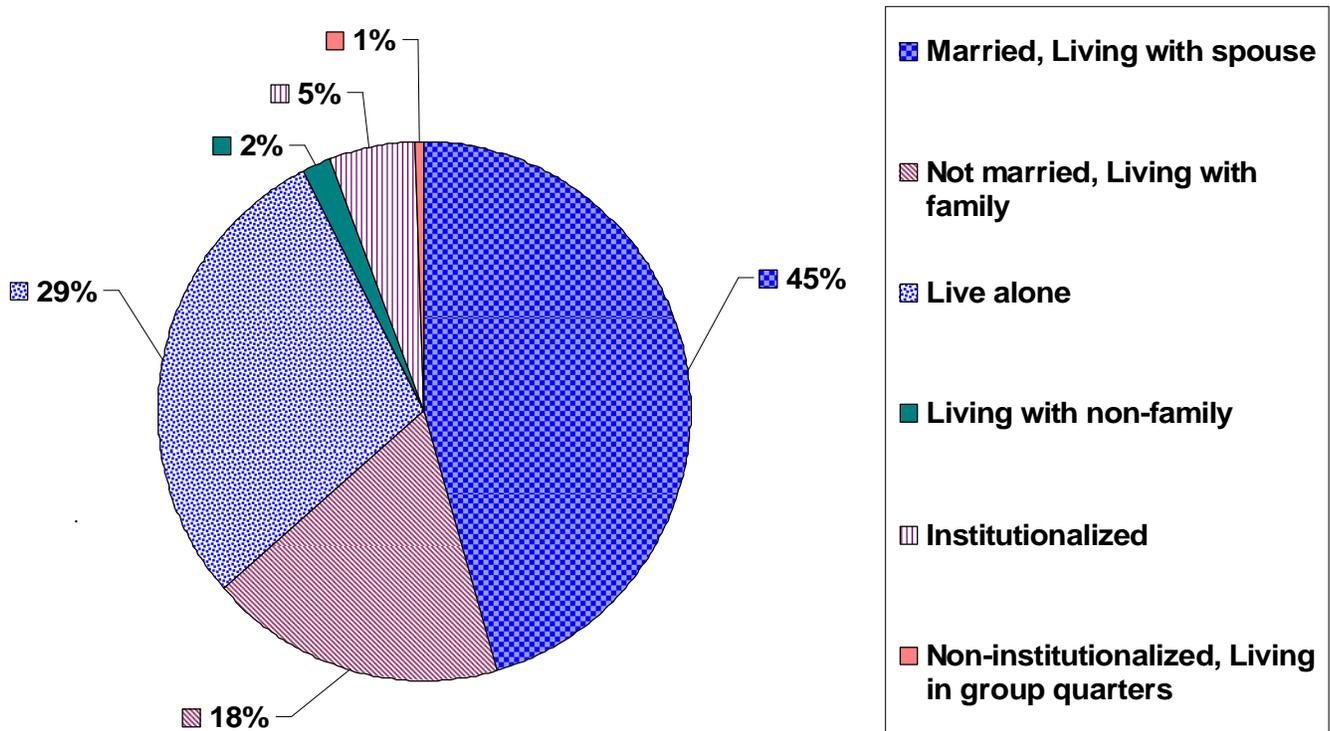
Source: BRFSS, 2003.

## Living Arrangement

According to the U.S. Census Bureau (2003), 45 percent (170,882) of Arkansans aged 65 and older are married and living with their spouses (Figure 21). Eighteen percent (67,190) of older adults are not married and live with relatives, and 2 percent (5,653) are unmarried,

living with non-relatives. Institutionalized persons represent 5 percent (20,123) of the older Arkansas population. The percentage of Arkansans aged 65 years and older living in non-institutionalized group living quarters was 1 percent (1,926).

**Figure 21: Living Arrangements of Arkansas Adults Aged 65 Years and Older, 2000**

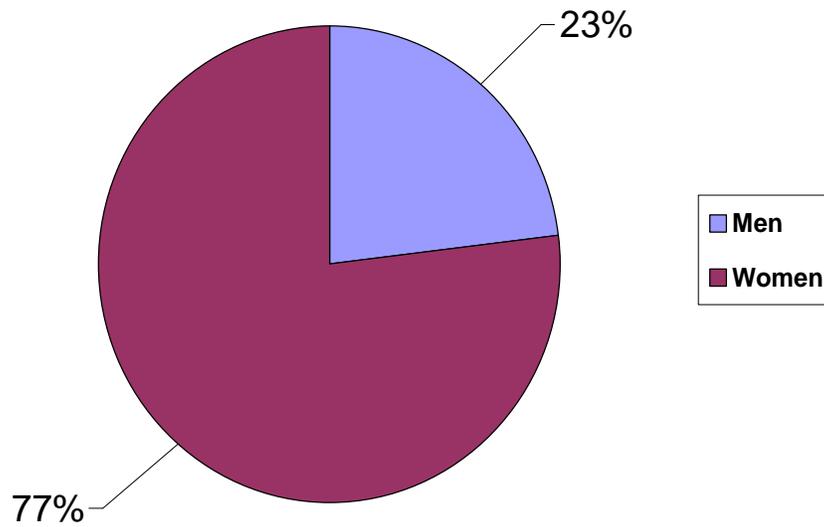


Source: U.S. Census Bureau, 2003

The percentage of older Arkansans living alone is 29 percent (108,955). As shown in Figure 22, of those living

alone, 77 percent are female and 23 percent are male (U.S. Census Bureau, 2003).

**Figure 22: Percentage of Arkansas Adults Aged 65 Years and Older Living Alone by Gender, 2000**



Source: U.S. Census Bureau, 2003

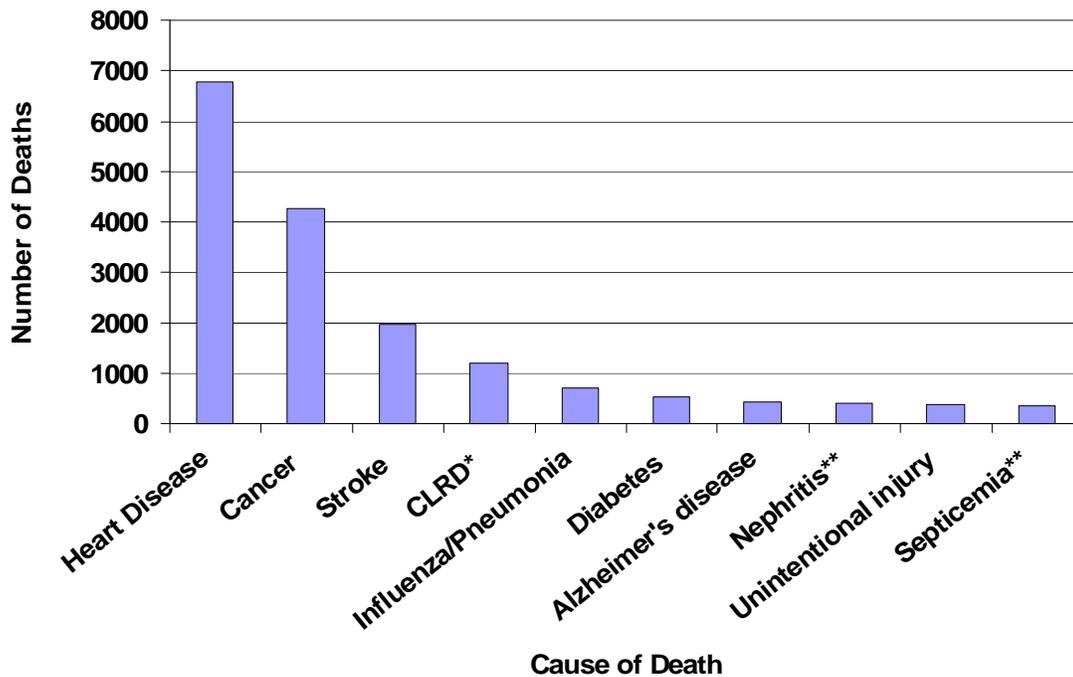
# Leading Causes of Death among Older Adults in Arkansas

Arkansas mirrors the nation in the leading causes of death for older adults.

The leading causes of death in Arkansas among adults aged 65 and older (in order of most common) are: heart disease, cancer, stroke, chronic lower respiratory disease (CLRD), influenza/pneumonia, diabetes, Alzheimer’s disease, nephritis, unintentional injuries, and septicemia (Figure 23).

These leading causes of death contribute heavily to high rates of disability among older adults. There are other chronic conditions that also impact the functional independence of older Arkansans. These include but are not limited to arthritis, osteoporosis, and poor oral health.

**Figure 23: Ten Leading Causes of Death for Arkansas Adults Aged 65 and Older, 2000**



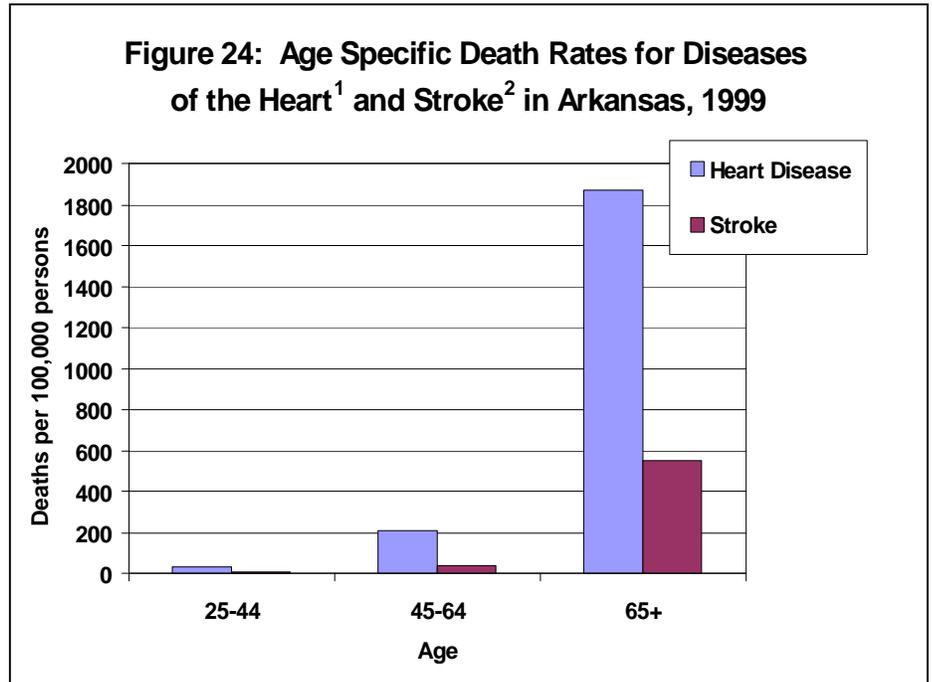
Source: CDC, WISQARS, 2003

\* Chronic Lower Respiratory Disease

\*\* While Nephritis and Septicemia are important causes of death, they will not be discussed in this report due to limited resources.

## Heart Disease and Stroke

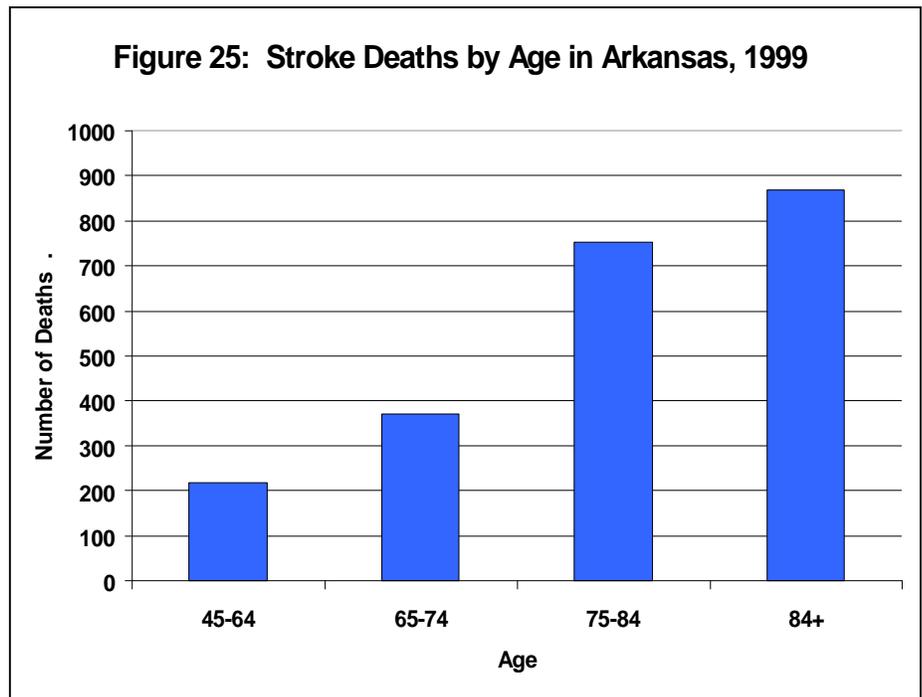
In Arkansas, cardiovascular disease is a serious concern. Heart disease and stroke, the principal components of cardiovascular disease (CVD), are the first and third leading causes of death in Arkansas. CVD causes more than 38 percent of all deaths (Arkansas Department of Health, Mortality Statistics, 2001). While stroke accounts for only 8 percent of deaths in Arkansas, the stroke death rate for 2001 in Arkansas was the highest in the United States. Eighty-eight percent of the stroke deaths occurred in the 65 years or older population. In addition, stroke is a major cause of serious, long-term disability among adults. Death rate data provide evidence for a marked increase in heart disease and stroke prevalence with increasing age (Figure 24 and Figure 25).



Source: Arkansas Department of Health, Mortality Statistics, 1999

<sup>1</sup> ICD10 codes I00-I09, I11, I13, I20-I51

<sup>2</sup> ICD codes I60-I69

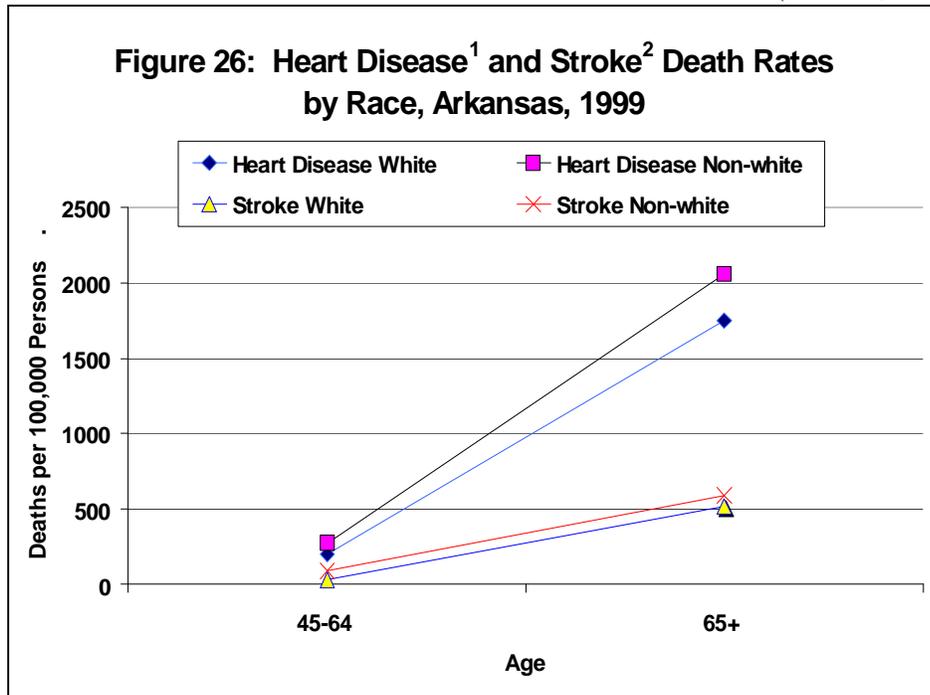


Source: Delta States Stroke Consortium Data

Heart disease and stroke are the leading causes of death for both men and women. Among Arkansans aged 65 years or older, stroke is a more frequent cause of death among women (10.9 percent) than men (7.8 percent), while heart disease is an equally frequent cause of death among women (32.4 percent) and men (32.2 percent) (Arkansas Department of Health, Mortality Statistics, 1999).

In 2001, 7.5 percent of Arkansans aged 55-64 and 12.5 percent of those aged 65 and older reported having been told by a health professional that they had had a heart attack (BRFSS, 2003).

In 2001, 5.2 percent of Arkansans aged 55-64 and 8.8 percent of those aged 65 and older reported having been told by a health professional that they had had a stroke (BRFSS, 2003).



In 2000, the age-adjusted rate of stroke hospitalization among Arkansas Medicare enrollees aged 65 years and older was 19.4 per 1,000 enrollees (CDC, MMWR, 2003).

Source: Arkansas Department of Health, Mortality Statistics, 1999

<sup>1</sup> ICD10 codes I00-I09, I11, I13, I20-I51

<sup>2</sup> ICD codes I60-I69

CVD disparity has existed across racial groups each year over the past decade with African American men having a higher death rate than Caucasian men and African American women having a higher death rate than Caucasian women for both heart disease and stroke (Figure 26).

### Prevention Opportunity

Thirty years of research demonstrates that interventions, such as encouraging healthier lifestyles and increasing early detection and treatment, can prevent heart disease and stroke among those who are healthy, as well as improve the health of people who have already experienced these events. Controlling high blood pressure and high cholesterol, and modifying health behaviors, such as increasing physical activity, improving nutrition, and decreasing tobacco use, can greatly reduce the risk of heart disease and stroke.

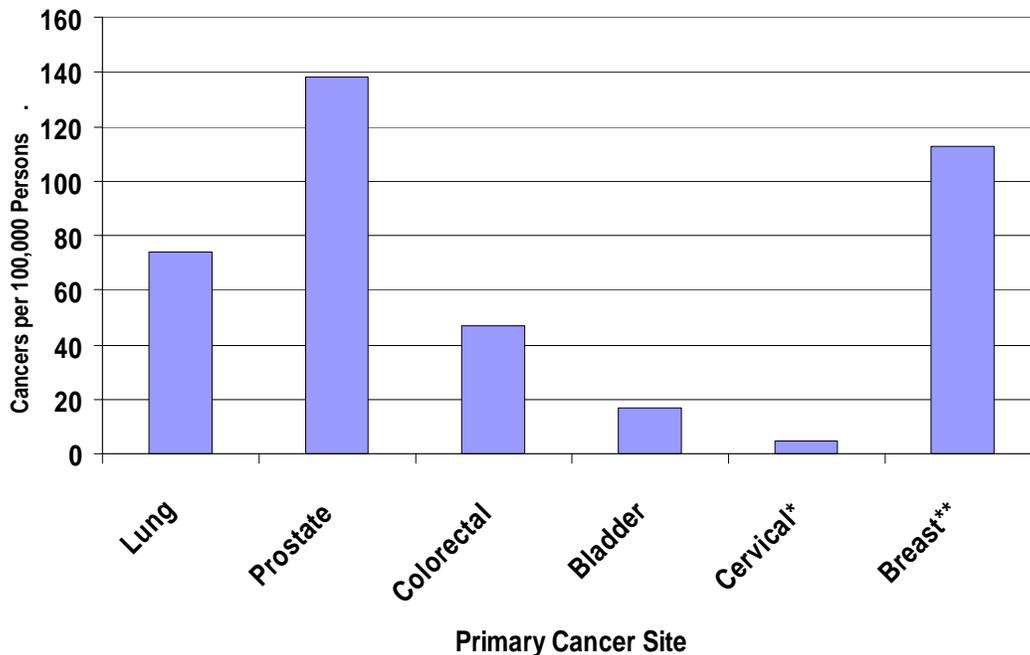
## Cancer – Lung, Breast, Prostate, Colorectal, Bladder and Cervical

Cancer is the second leading cause of death in Americans aged 65 years and older. Cancer is also the second leading cause of death in Arkansas, with approximately 6,000 deaths per year. Arkansas ranks thirteenth highest in the overall cancer death rates in the United States. In 2000, the age-adjusted incidence rate for all cancers (in situ and invasive) among Arkansans ages 50 and older was 377.8 per 100,000 persons (Arkansas Central Cancer Registry, 2003).

It is believed that the number of new cancer cases can be reduced substantially, and many cancer deaths can be prevented through screening. However, many older adults are not getting regular screenings as recommended. Screening for colorectal, breast and cervical cancers can reduce illness and death through early detection of cancers and precancers.

In 2002, the percentage of women aged 50 and older in Arkansas, who have never had a mammogram, ranged from 11 percent to 15 percent. These statistics are particularly alarming because the current recommendations for women this age are to receive yearly mammograms.

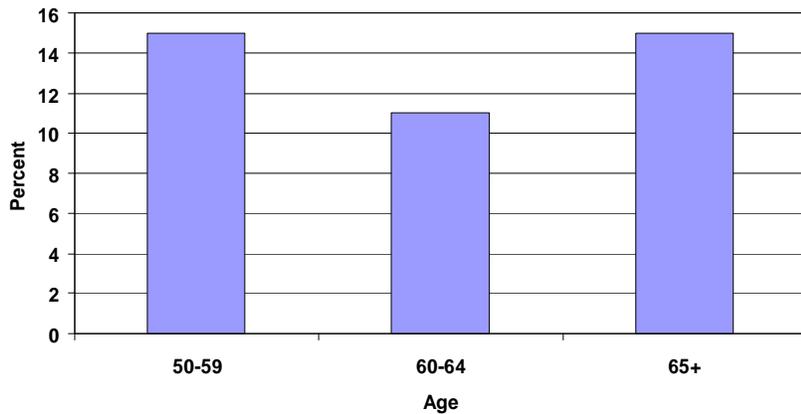
**Figure 27: Incidence of Selected Cancers among Arkansas Adults Aged 50 Years and Older, 2000**



Source: Arkansas Central Cancer Registry, 2003

Includes in situ and invasive Cancers; \* Invasive cancer only; \*\* Women only.

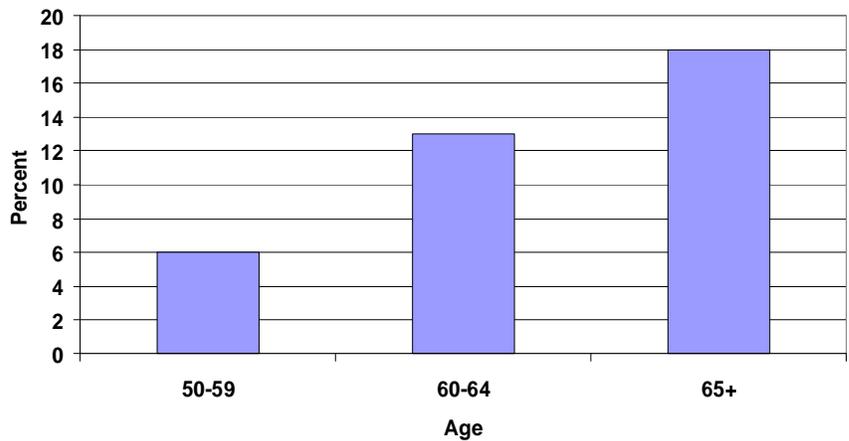
**Figure 28: Percentage of Arkansas Women 50 Years and Older Who Have Never Had a Mammogram, 2002**



Source: BRFSS 2002, Percentages are weighted to population characteristics.

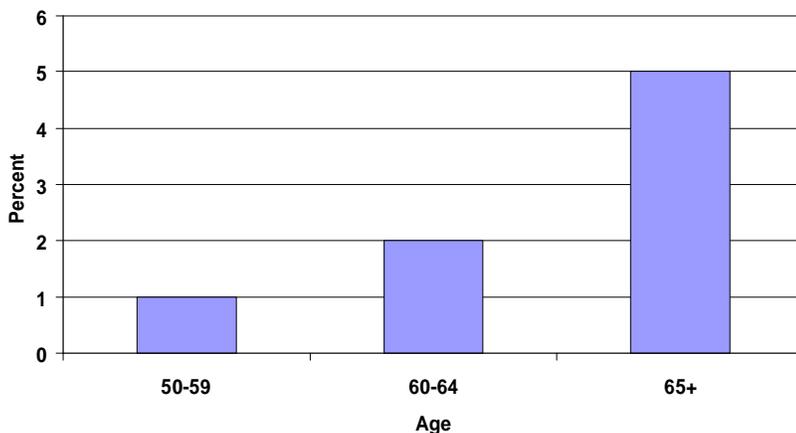
In Arkansas, the percentage of women, who have never had a clinical breast exam, increases with age. Six percent of women aged 50-59 years of age, 13 percent of women aged 60-64 and 18 percent women age 65 and older reported never having a clinical breast exam in their lifetime (Figure 29).

**Figure 29: Percentage of Arkansas Women Aged 50 Years and Older Who Have Never Had a Clinical Breast Exam, 2002**



Source: BRFSS 2002, Percentages are weighted to population characteristics.

**Figure 30: Percentage of Arkansas Women Aged 50 Years and Older Who Have Never Had a Pap Smear, 2002**

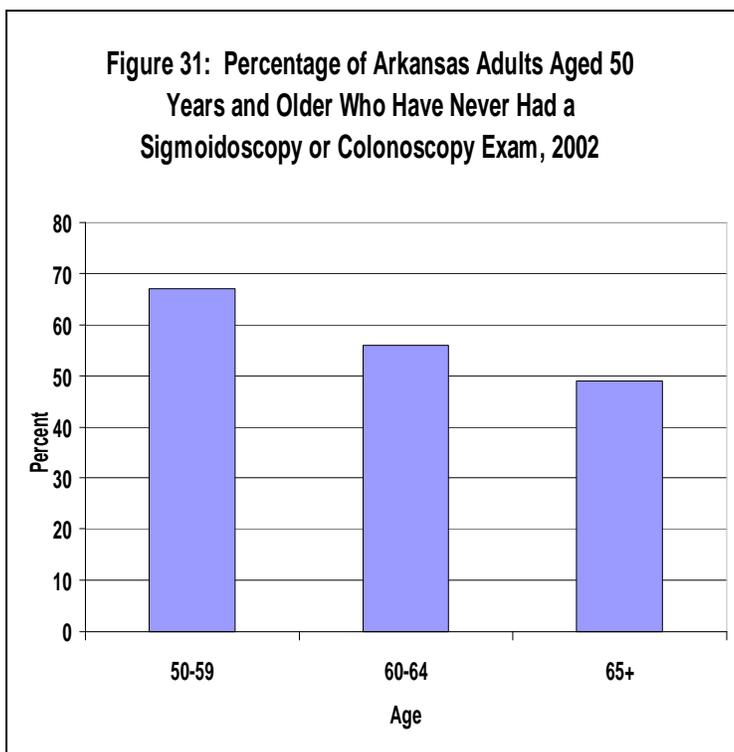


The percentage of women in Arkansas who reported never having a Papanicolaou (Pap) smear, increases with age. One percent of women aged 50-59, 2 percent of women aged 60-64 and 5 percent of women aged 65 and older report never having a Pap smear (Figure 30).

Source: BRFSS 2002, Percentages are weighted to population characteristics.

The percentage of older Arkansans reporting never having had a sigmoidoscopy or a colonoscopy decreases with age. As seen in Figure 31, 63 percent of people aged 50-59 years of age have never had the exams, while 49 percent of people aged 65 years have never had the exams (BRFSS, 2002).

**Figure 31: Percentage of Arkansas Adults Aged 50 Years and Older Who Have Never Had a Sigmoidoscopy or Colonoscopy Exam, 2002**



Source: BRFSS 2002, Percentages are weighted to population characteristics.

### Prevention Opportunity

Early detection of cancers and precancers can increase the success of treatment. The United States Preventive Services Task (USPSTF) recommends:

- Screening mammography, with or without clinical breast examination, every 1-2 years for women aged 40 and older;
- Screening for cervical cancer in women who have been sexually active and have a cervix; and
- Screening men and women 50 years of age or older for colorectal cancer. Screening ages may differ if there is a family history of disease.

The USPSTF recommends against:

- Routinely screening women older than age 65 for cervical cancer, if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer; and
- Routine Pap smear screening in women who have had a total hysterectomy for benign disease.

For prostate and lung cancer, the USPSTF has concluded that the evidence is insufficient to recommend for or against routine screening.

Modifying health behaviors such as increasing physical activity, improving nutrition, and decreasing tobacco use can also reduce an older adult's risk for illness and death due to cancer.

## Chronic Lower Respiratory Disease

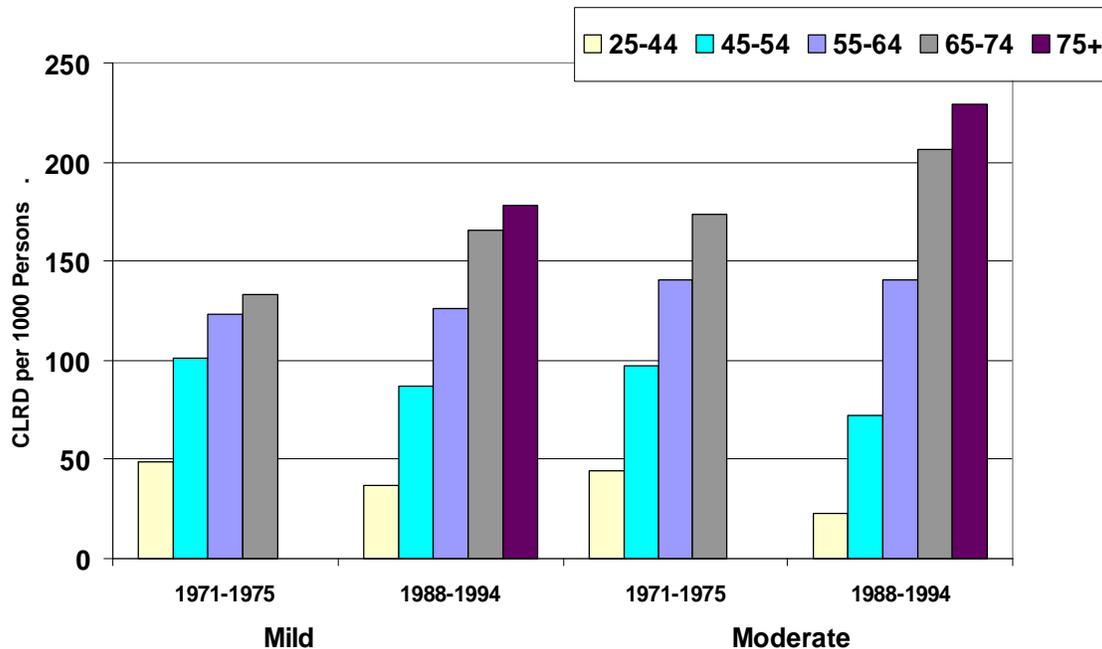
Chronic lower respiratory disease (CLRD) is a group of diseases that includes emphysema and chronic bronchitis. It is also called chronic obstructive pulmonary disease (COPD). A person may have a mild form without symptoms or may have severe symptoms with substantial physical impairment. The disease gradually progresses until airflow obstruction occurs resulting in breathing-related symptoms (e.g., chronic cough, shortness of breath with physical activity, excessive phlegm, wheezing).

CLRD is the fourth leading cause of death among adults ages 65 and older in

the United States and in Arkansas (CDC, WISQARS, 2003; Arkansas Department of Health, Mortality Statistics, 2002). During 2000, an estimated 10 million U.S. adults reported physician-diagnosed CLRD. However, data from NHANES III (National Health and Nutritional Examination Surveys) estimate that approximately 24 million U.S. adults have evidence of impaired lung function, indicating that COPD is under-diagnosed (MMWR Surveillance Summaries, 2002).

Figure 32 demonstrates that the prevalence of either mild or moderate obstructive pulmonary disease increases with age.

**Figure 32: Estimated Rates of Mild or Moderate Chronic Lower Respiratory Disease by Age Group in the United States, 1971-1975, and 1988-1994**



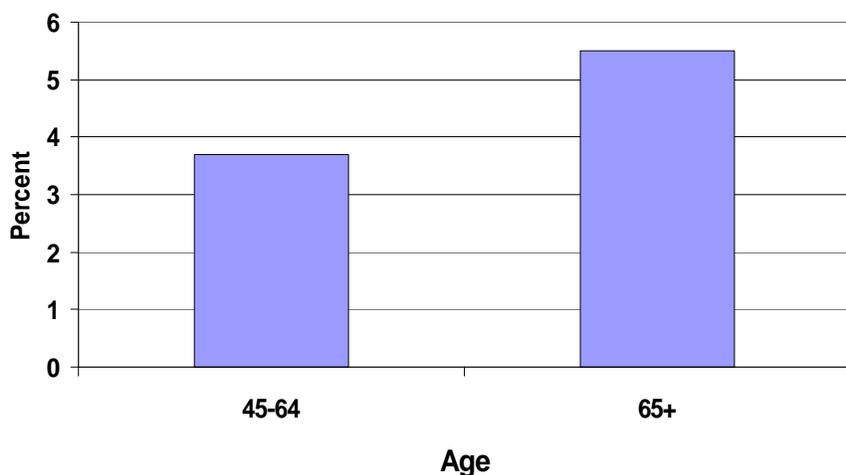
Source: CDC, MMWR Surveillance Summaries, 2002

Figure 33 shows that an increase with age in deaths from CLRD with age occurs in Arkansas. Among persons aged 45-64, years the percentage of those dying with CLRD was 3.7 (death rate was 30.2 per 100,000 persons). Among persons aged 65 and older, the percentage was 5.7 (death rate was 318.8 per 100,000 persons) (Arkansas Department of Health, Mortality Statistics, 1999).

### Prevention Opportunity

Chronic lower respiratory disease (CLRD) is usually caused by smoking and may also be caused by long-term exposure to second-hand smoke in nonsmokers. Almost 70 percent of people who have CLRD currently smoke or smoked at one time. In contrast, fewer than 50 percent of adults without CLRD are current or former smokers (Center on an Aging Society, 1998). Smoking cessation has significant benefits for older adults and can slow the progression of CLRD. It is never too late to quit and reap the benefits of not smoking.

**Figure 33: Percentage of Arkansas Adults Aged 45 Years and Older Dying with Chronic Lower Respiratory Disease, 1999**



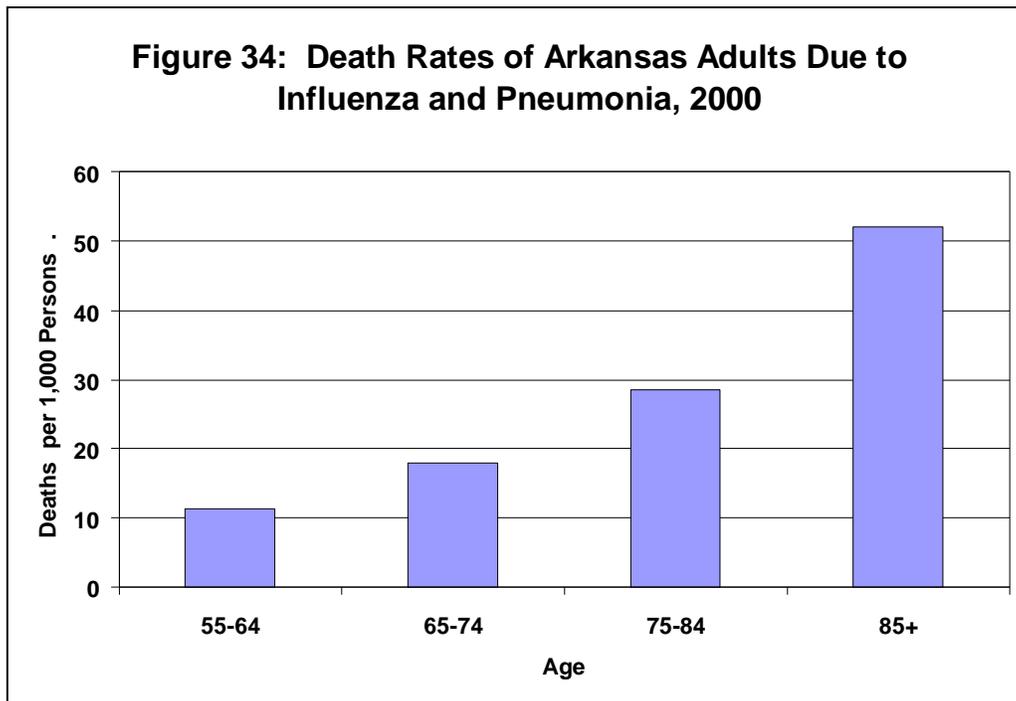
Source: Arkansas Department of Health, Mortality Statistics, 1999

## Influenza and Pneumonia

The combination of pneumonia and influenza is the seventh leading cause of death in the United States, claiming the lives of more than 300,000 older Americans each year (CDC, WISQARS, 2003). It is the fifth leading cause of death in Arkansas (Arkansas Department of Health, Mortality Statistics, 1999). In 2000, pneumonia and influenza claimed 751 Arkansans aged 65 and older. Death rates due to influenza and pneumonia increase with age among adults aged 65 and over. Arkansans aged 85 years and over have more than twice the death rate from influenza and pneumonia as those aged 65 - 74 (Figure 34).

Many older Arkansans are not receiving recommended immunizations. Immunization for influenza and

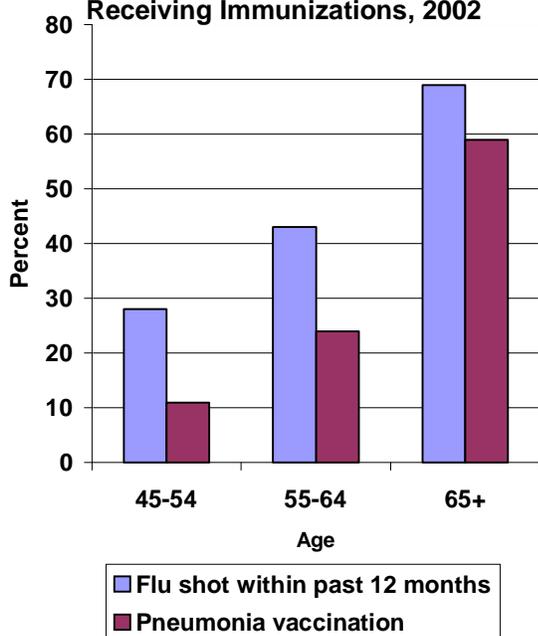
pneumococcal pneumonia can reduce the incidence of these diseases by as much as 80 percent, as well as reduce the severity of illness and risk of hospitalizations. Influenza immunizations should be administered annually for persons aged 50 and older, and pneumococcal immunizations should be administered once in a life time for healthy persons aged 65 and older. Those with certain chronic diseases may need to be vaccinated against pneumococcal pneumonia more than once. However, all adults with chronic illness, such as heart or lung disease, should be vaccinated against both of these regardless of age. If utilized, these immunizations can protect against severe illness and possibly death due to these conditions among persons aged 65 and older.



Source: CDC, Wonder, 2003

However, data from 2001 show that only 63 percent of Arkansans aged 65 years and older reported having had a flu vaccine in the past year and 59 percent received a pneumococcal vaccine in their life time (BRFSS, 2002). In 2002, the prevalence of influenza immunization in Arkansans aged 65 and older increased to 69 percent (Figure 35).

**Figure 35: Percentage of Arkansas Adults Aged 45 Years and Older Receiving Immunizations, 2002**



Source: BRFSS 2002, Percentages are weighted to population characteristics.

Preventive measures such as immunizations, are particularly important for older adults who live in nursing homes. In the United States, 59 percent of nursing residents had an influenza vaccination and 25 percent received a pneumococcal vaccination. In Arkansas, although the exact percentage of nursing home residents receiving influenza and pneumococcal vaccination is not known, it is believed to be very high since all nursing home residents are required by law to receive these vaccinations.

### Prevention Opportunity

Older adults should receive an annual flu shot to protect them from death or severe illness due to influenza. The annual flu shot is recommended for

- people 50 years of age or older,
- residents of chronic care facilities,
- people who have chronic problems (heart disease, lung disease, asthma, diabetes, etc.),
- people with weakened immune systems,
- anyone who comes in close contact with people at risk of serious influenza (those people mentioned above).

The flu shot may be given at the same time as other vaccines. Older adults should get their flu shot in October of each year, but can be vaccinated at any time during flu season.

Pneumococcal disease is a serious disease. We can protect those at greatest risk from severe illness and death by vaccinating them. People who are at greatest risk and should receive the pneumococcal vaccine are:

- all adults aged 65 years or older,
- any adult who has a long-term health problem (heart disease, diabetes, sickle cell disease, etc.), or a condition that lowers the body's resistance to infection (Hodgkin's disease, kidney failure, HIV infection, etc.),
- any adult who is taking drugs/treatment that lowers the body's resistance to infection (i.e. long term steroids, radiation therapy, certain cancer drugs), and
- anyone who is an Alaskan Native or Native American.

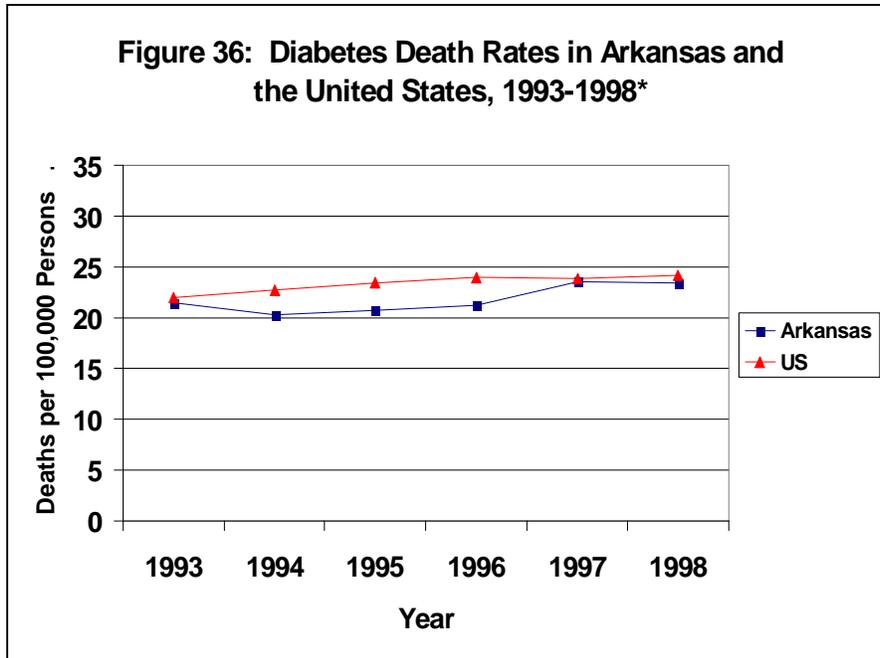
The pneumococcal vaccine only needs to be given once after the age of 65 years. However, if a person received the pneumococcal vaccine when he/she was under 65 years old and more than five years have passed, then the person needs to be vaccinated again. A second vaccination is also recommended for people, who have sickle-cell disease, cancer, and HIV infection.

For more information on the recommendations for influenza and pneumococcal vaccinations, please refer to the Center for Disease Control and Prevention's website at <http://www.cdc.gov/nip/recs/adult-schedule.htm#chart>.

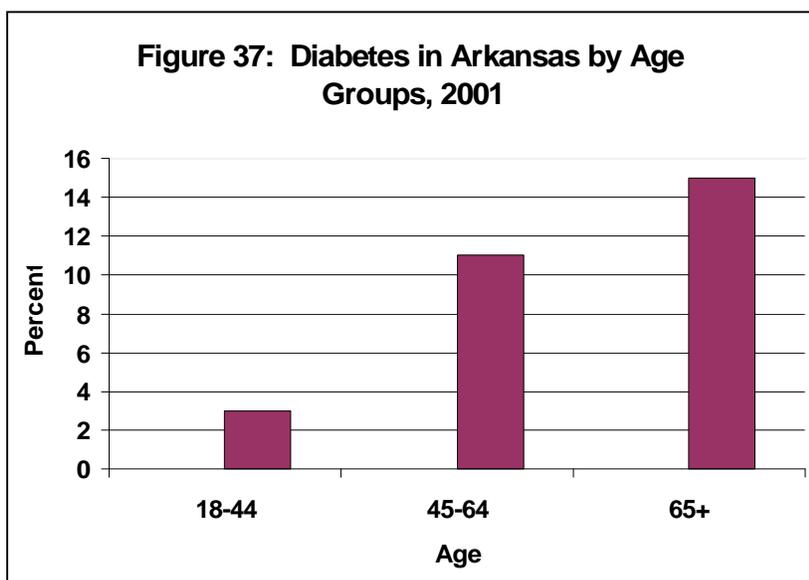
## Diabetes

More than 17 million Americans have diabetes, and about one-third of them are not aware that they have the disease. An estimated 156,000 Arkansans are aware that they have diabetes, and as many as 78,300 may be unaware that they have it.

Each year in the U.S. more than 200,000 people die with diabetes-related complications (CDC). The diabetes mortality rate for Arkansas is similar to the United States' rate (Figure 36). (Arkansas Department of Health, The Burden of Diabetes, 2003).



Source: CDC, 2003 \*Rates adjusted for age differences.



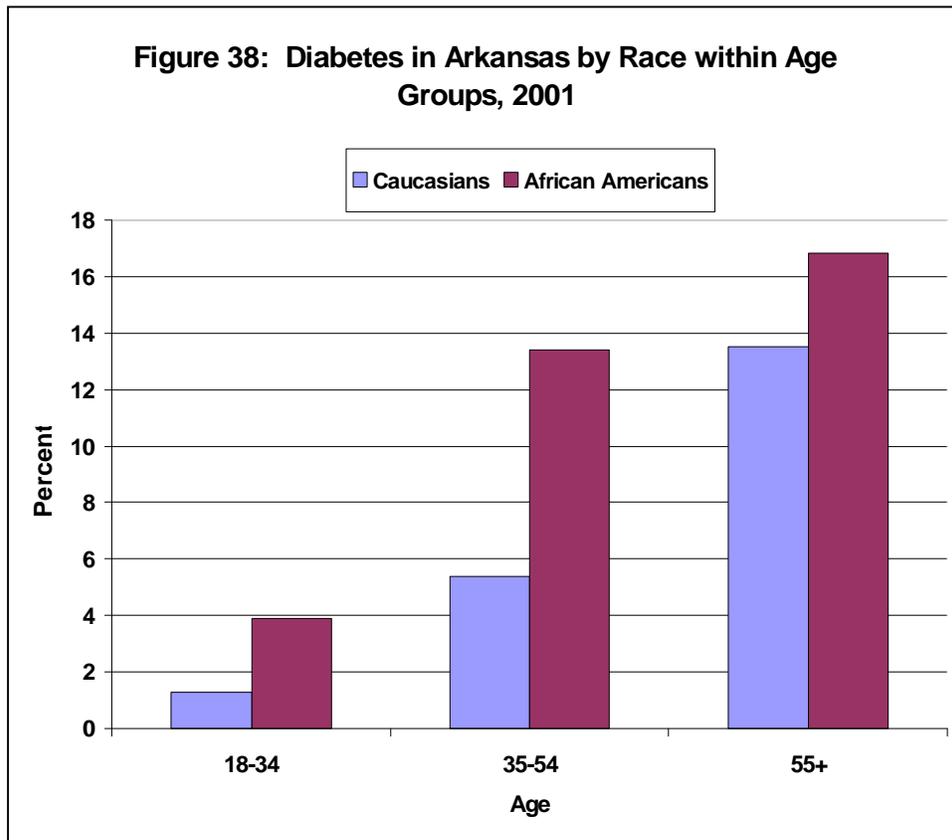
The burden of diabetes is unequally distributed among different groups in Arkansas. A substantial increase in the prevalence of diabetes occurs after the age of 45. As seen in Figure 37, older Arkansans suffer with a higher share of the diabetes burden (14.9 percent) compared to younger Arkansans (2.7 percent) (Arkansas Department of Health, The Burden of Diabetes, 2003).

Source: BRFSS, 2001

### Prevention Opportunity

Diabetes and many complications of diabetes, including heart disease, stroke, blindness, kidney failure, and amputation of the leg and foot, can be prevented. Prevention opportunities include early detection, improved access to health care, better patient education and self-management, and encouraging healthy behaviors, such as increasing physical activity, improving nutrition, and maintaining a healthy weight.

Among older African American Arkansans (aged 55 and older) the prevalence of diabetes is 25 percent higher than the prevalence seen among older Caucasian Arkansans (Figure 38).

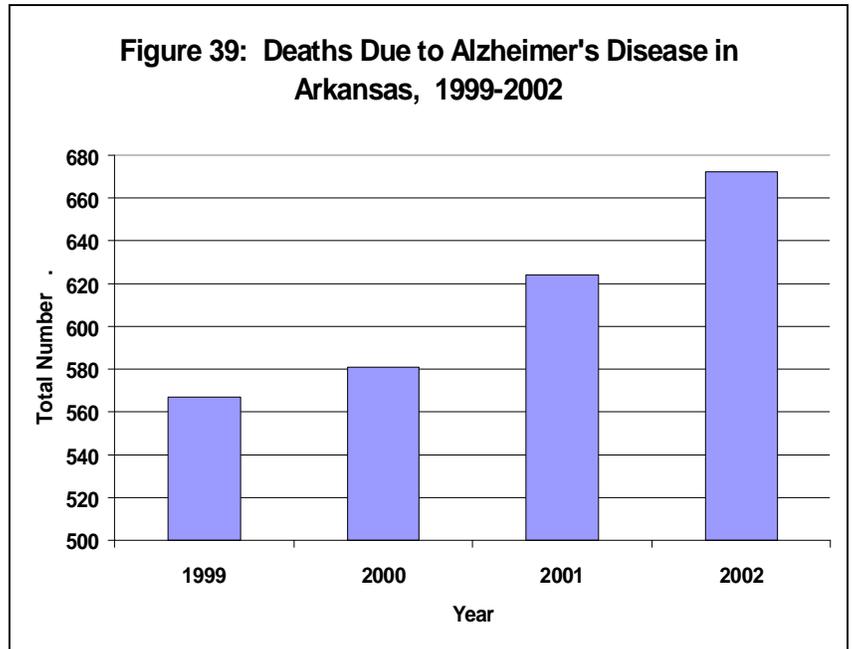


Source: BRFSS, 2001

## Alzheimer's Disease

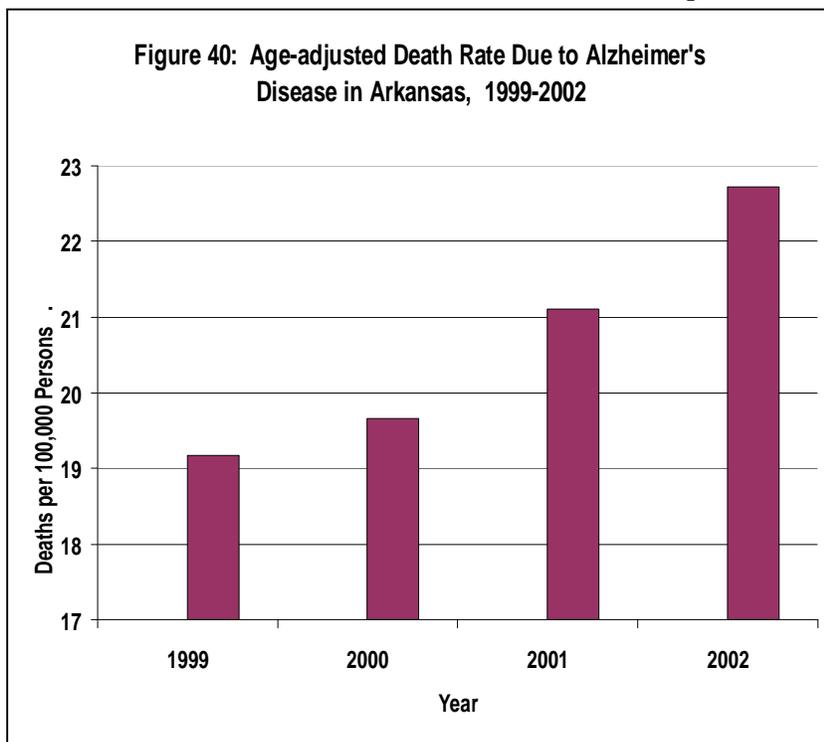
Alzheimer's disease is the seventh leading cause of death in older adults (aged 65 years and older) in the United States and Arkansas. It is estimated that Alzheimer's disease is responsible for 60-70 percent of all cases of dementia. Up to one third of nursing home residents may have Alzheimer's disease (Leon and Moyer, 1999).

The number of Arkansans, who died from Alzheimer's disease, has been increasing at least since 1999 (Figure 39). The age-adjusted death rate for Alzheimer's disease has also been increasing for Arkansans (Figure 40).



Source: Arkansas Department of Health, Mortality Statistics, 1999-2002

Based on the 2000 census information, Alzheimer's disease was estimated to affect about 4.5 million Americans. The disease is estimated to affect 7 percent of persons between 65 and 74 years, 53



percent of persons aged 75 - 84, and 40 percent of those aged 85 years and older. The incidence of Alzheimer's disease doubles with every five years of age after 60. The number of Americans with Alzheimer's disease is expected to triple by the year 2050 to 13.2 million. Because the risk of Alzheimer's disease increases with age, the aging of the Arkansas population has strong implications for the growing prevalence of this disease.

Source: Arkansas Department of Health, Mortality Statistics, 1999-2002

\*Data normed to 2000 population

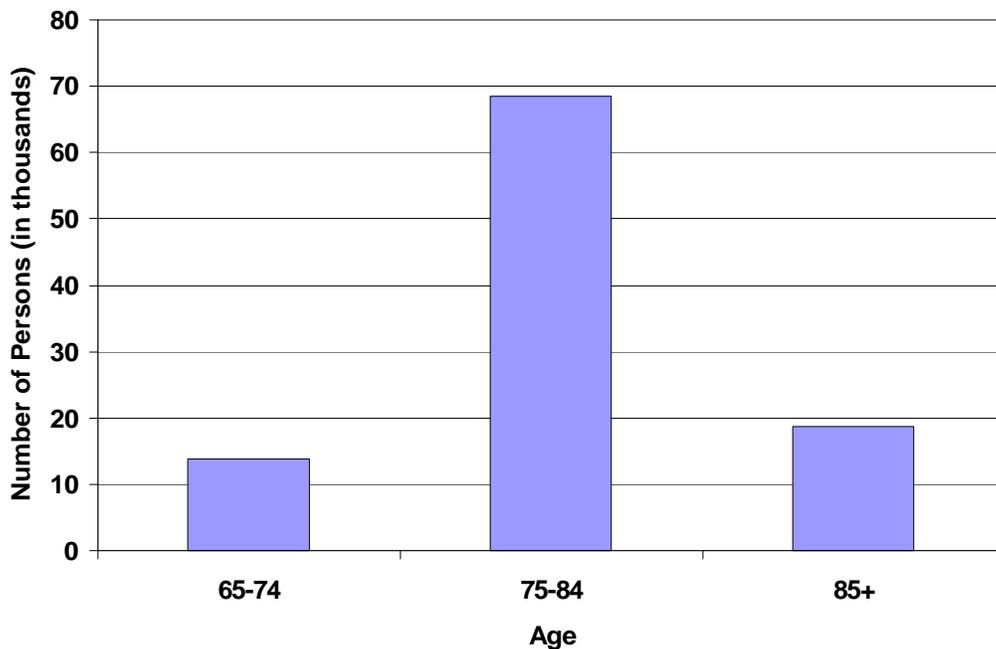
If these national estimates, as described above, are applied to Arkansas, 27 percent of Arkansas' population aged 65 years and older is estimated to have Alzheimer's disease (100,952 persons). This represents 4 percent of Arkansas' total population. By 2050, the number will increase to 302,900 Arkansas with Alzheimer's disease. (Figure 41) (Hebert et al., 2003)

This risk for Alzheimer's disease is similar for men and women, but differs significantly with race. African Americans are at higher risk for developing Alzheimer's disease than Caucasians. Alzheimer's disease rates are lower among higher socioeconomic groups, but the reasons for this disparity are not understood (National Academy on an Aging Society, 1994).

**Prevention Opportunity**

There are several modifiable risk factors that are potentially associated with Alzheimer's disease, including high blood pressure, high cholesterol, high fat diet, high calorie diet and mental inactivity. These risk factors are highly associated with other chronic diseases and conditions, such as heart disease, stroke, diabetes, and depression. It is hoped that controlling or reducing these risk factors for chronic diseases would potentially reduce the incidence of Alzheimer's disease, as well.

**Figure 41: Estimated Number of Persons with Alzheimer's Disease in Arkansas, 2000**



Source: Hebert et al., 2003

## Unintentional Injuries

Unintentional injuries are the ninth leading cause of death in Arkansas for adults aged 65 years and older.

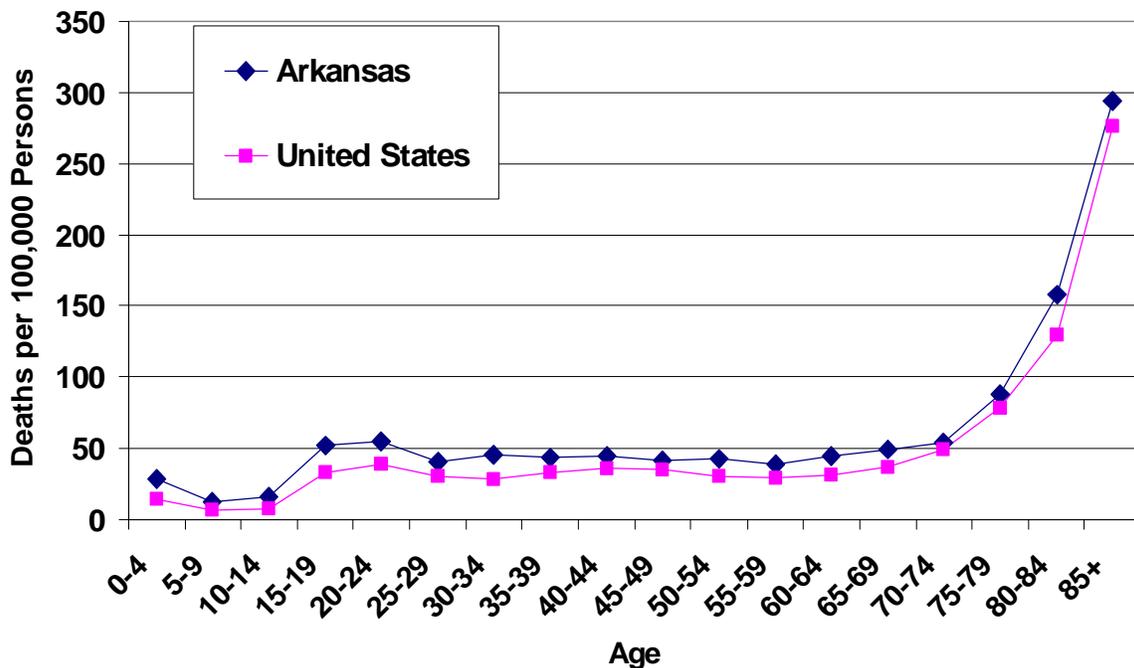
Unintentional injuries include falls, motor vehicle injuries, fire-related injuries, and pedestrian injuries. There were a total of 1,169 deaths in Arkansas in 2000 due to unintentional injury.

Currently Arkansas has no surveillance system to track the number of unintentional injuries. Death rate data and hospital discharge data were used instead for 1999-2001.

The leading causes of death due to unintentional injury for adults aged 65 and older were motor vehicle accidents, falls, and fires.

The unintentional injury death rate increases after the age of 65 and dramatically increases after the age of 80 (Figure 42). The unintentional injury death rate for adults aged 65 years and older in the United States is 91 per 100,000 persons. The unintentional injury death rate for this same age group in Arkansas is 104 per 100,000 persons.

**Figure 42: Unintentional Injury Death Rates in Arkansas and the United States, 1999-2001**



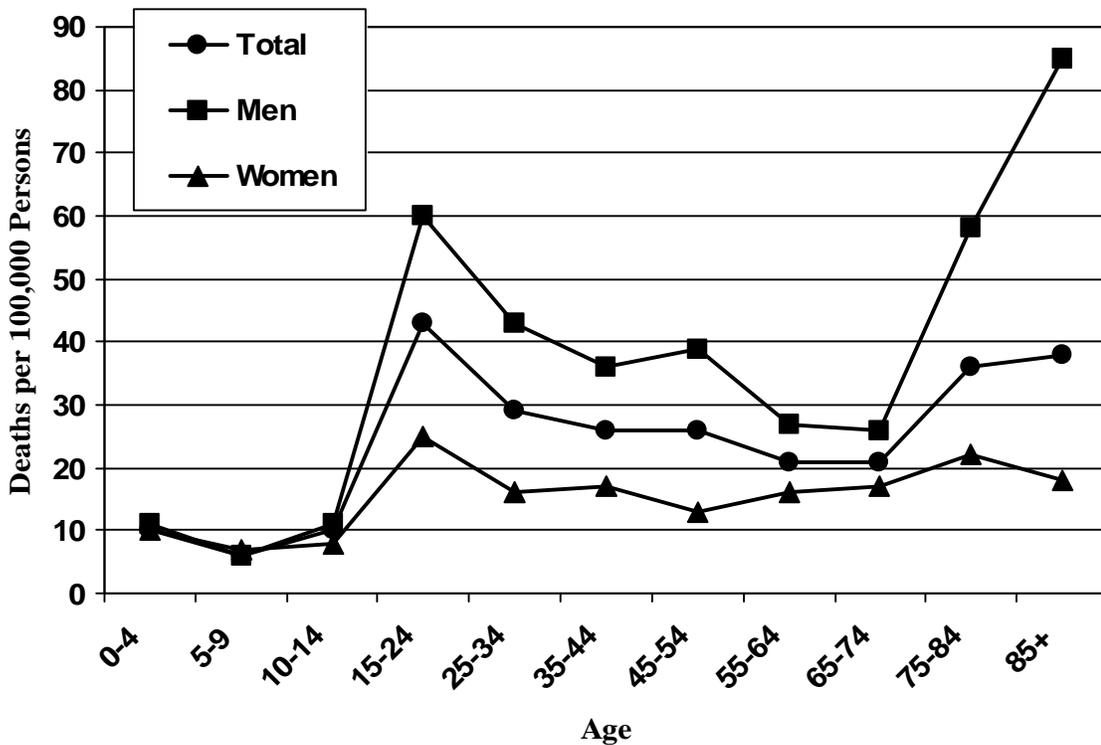
Source: CDC, WISQARS, 1999-2001

## Motor Vehicle Accidents

Arkansas has a higher rate of motor vehicle injury compared to most other states. The rates of Arkansas traffic fatalities have been consistent over the past decade and have been at least 50 percent above national rates during this period. Between 1999 and 2001, the death rate of Americans aged 65 and older killed due to motor vehicle injuries was 22 per 100,000 persons.

During the same time period, the death rate among Arkansans aged 65 and older was 29 per 100,000 persons. This amounted to a total of 317 deaths of older Arkansans. Rates for motor vehicle fatalities in older adults were higher than for middle-aged adults, increasing rapidly after age 65 years, especially among men (Figure 43).

**Figure 43: Motor Vehicle Death Rates by Age in Arkansas, 1999-2001**



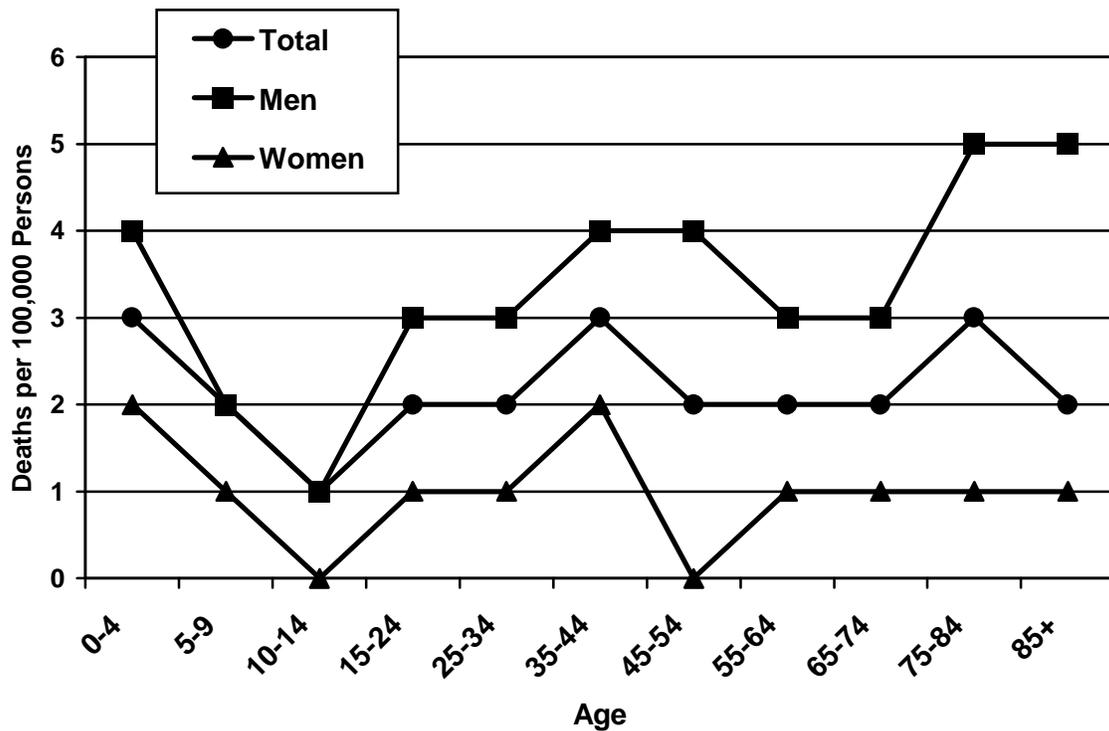
Source: CDC, WISQARS, 1999-2001

## Pedestrian Injuries

Pedestrian injuries are accidents that involve motor vehicles striking persons who are on foot. In the United States, pedestrian injuries killed over 16,000 people during 1999-2001. Rates were highest in the 65 and older group, where the overall rate of 3.68 per 100,000 was 78 percent higher than the general population (1.81 per 100,000).

Between 1999-2001, the highest overall death rates for pedestrian injuries in Arkansas were among older adults, with rates as high as 5.0 per 100,000 among men aged 65 and older. Men have approximately four times the risk compared to women of death from pedestrian injuries (Figure 44).

**Figure 44: Pedestrian Injury Death Rates in Arkansas, 1999-2001**



Source: CDC, WISQARS, 1999-2001

## Falls

The death rate for fall-related injuries in Arkansas (24.37 per 100,000 persons) was slightly lower than the nation (30.45 per 100,000 persons) between 1999 and 2001. In Arkansas, approximately 90 persons died due to falls each year between 1999 and 2001.

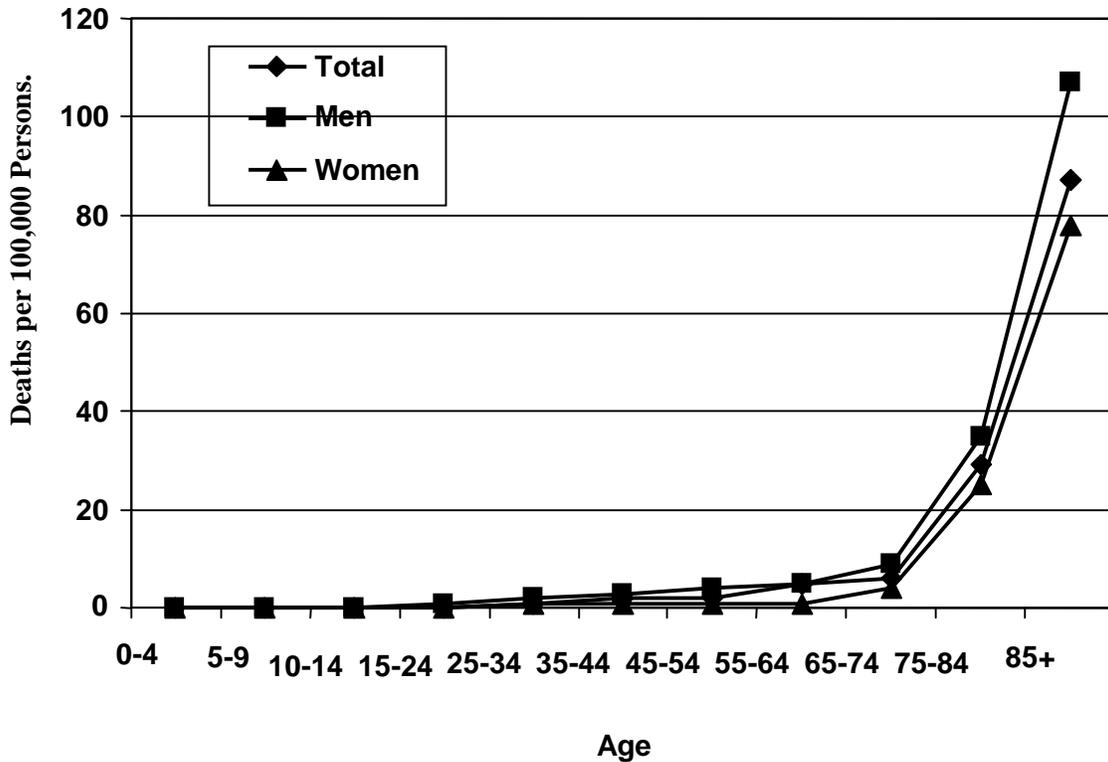
Fall-related deaths increase significantly with age (Figure 45). The largest increase in the fall-related death rate occurs among Arkansans aged 75 to 79 (16.73 per 100,000 persons) and those aged 80 to 84 (47.58 per 100,000 persons). The death rate triples between these two age groups (Table 3).

**Table 3: Crude Death Rate for Fall-related Injuries by Age Groups, Arkansas, 1999-2001**

Age Group (years)	Crude Death Rate*
65-69	4.82
70-74	7.94
75-79	16.73
80-84	47.58
85+	86.84

\*per 100,000 persons  
Source: CDC, Wonder

**Figure 45: Death Rates due to Fall-Related Injuries in Arkansas, 1999-2001**



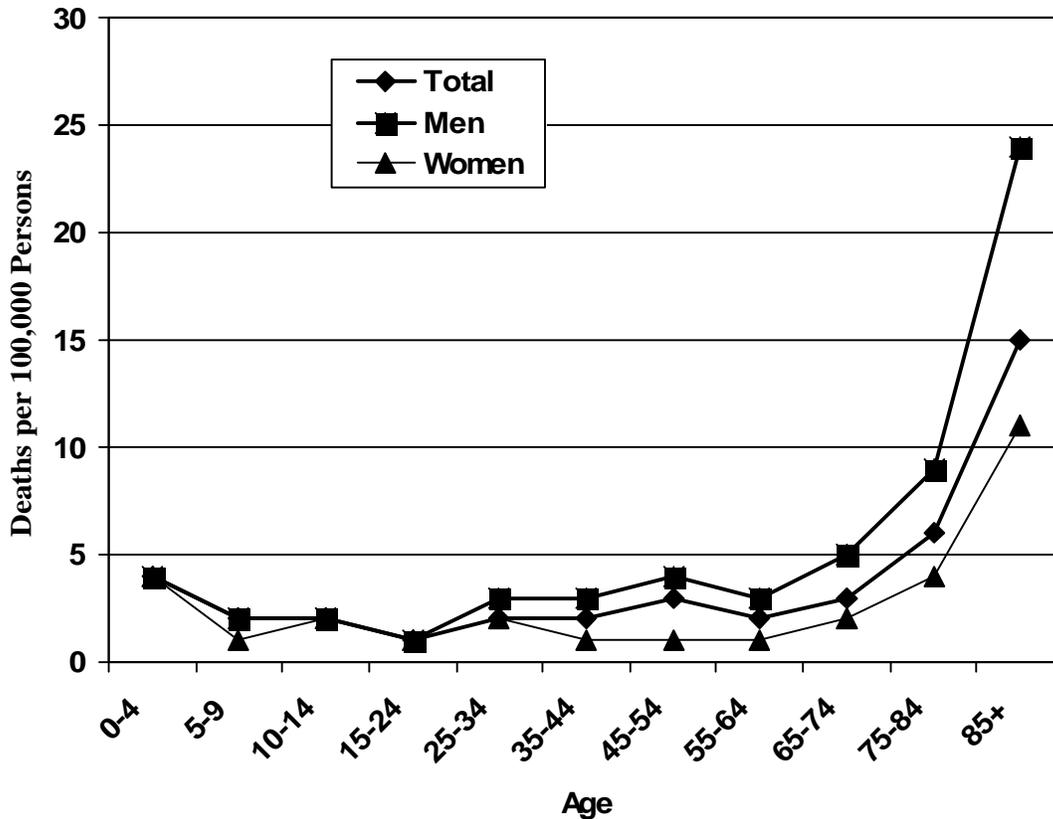
Source: CDC, WISQARS, 1999-2001

## Fires and Burns

Over the past decade, Arkansas has had almost double the rate of deaths due to fire-related injury compared to the national rate. The Arkansas rate of death for adults aged 65 and over was 6.03 per 100,000, while the national rate was 3.4 per 100,000.

Between 1999 and 2001, 67 Arkansans died due to fire-related injuries. Similar to national figures, the highest death rates were among the very old. Beginning at age 65, Arkansans experience significantly greater death rates due to fire-related injuries, with men having almost double the death rate compared to women (Figure 46).

**Figure 46: Fire and Flame Death Rates in Arkansas, 1999-2001**



Source: CDC, WISQARS, 199-2001

### Prevention Opportunity

To prevent and reduce fall-related injuries, several modifiable risk factors have been identified. These include lower body weakness, problems with walking and balance, taking four or more medications or any psychoactive medications, and environmental hazards (i.e. tripping hazards, lack of stair railings or grab bars, slippery surfaces, unstable furniture, and poor lighting). Older adults can modify these risk factors by:

- Increasing lower body strength and improving balance through regular physical activity;
- Asking their doctor and pharmacist to review all their medicines (both prescription and over-the-counter) to reduce side effects and interactions;
- Removing tripping hazards, such as throw rugs and clutter in walkways;
- Using non-slip mats in the bathtub and on shower floors;
- Having grab bars put in next to the toilet and in the tub or shower;
- Having handrails put in on both sides of stairways; and,
- Improving lighting throughout the home.

Some other important fall risk factors are Parkinson's disease, history of stroke, arthritis, cognitive impairment, and visual impairments. To reduce these risks, older adults should see a health care provider regularly for chronic conditions and have an eye doctor check their vision at least once a year.

## Common Causes of Disability for Older Adults in Arkansas

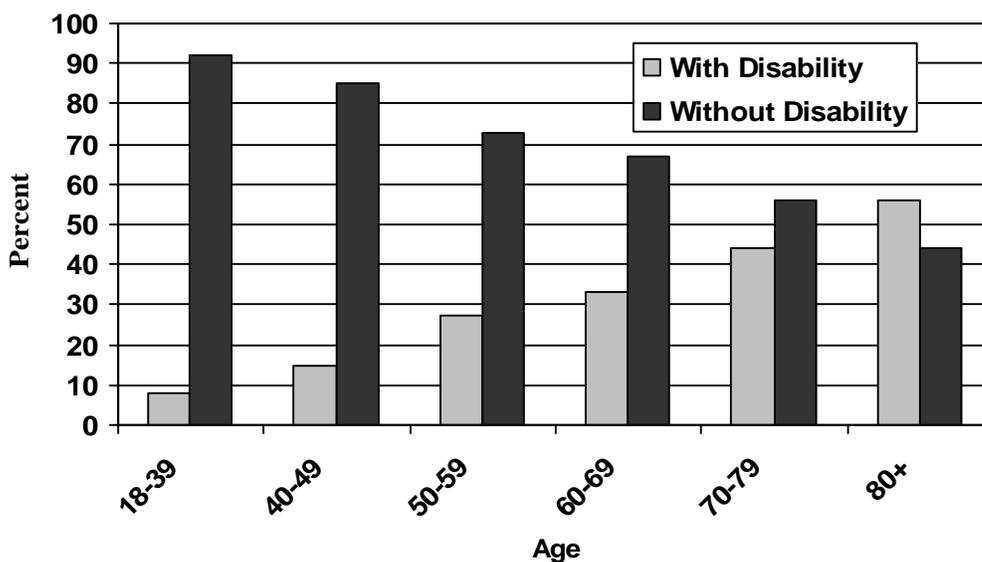
The percentage of persons with a disability increases with age.

Age is the most significant factor contributing to disability. The rate of disability increases as the age of the population increases. It is estimated that 169,492 (48 percent) of those aged 65 and older in Arkansas have a disability (U.S. Census Data, 2000). Figure 47 shows that the prevalence of disability increased substantially with age. Approximately 39 percent of adults aged 65 and older living in Arkansas reported having some degree of disability due to impairment or health problems, compared to about 9 percent of people aged 18-64 (BRFSS, 1998).

This prevalence is expected to increase by about 50 percent by the year 2010 due to the overall increased survival and life expectancy among the very young and the aging population.

According to Arkansas telephone survey data, the disability rate among women (21 percent) was slightly higher than among men (20 percent). This is likely associated with the longer life span of women than men. In addition, a low level of education and a low level of income was associated with an increased prevalence of disability. (BRFSS, 1998-2000).

**Figure 47: Percentage of Arkansans with Disability by Age, 1998-2000**



Source: BRFSS, 1998-2000

## Activity Limitations

Limitations in living activities were reported most frequently for adults aged 55 and older, which include activities of daily living (ADL) and instrumental activities of daily living (IADL). (See Glossary, for definitions.) In all three areas of activity, the prevalence of limitation increased with age. Approximately 61 percent of respondents aged 85 and older reported having difficulty with at least one functional activity. African Americans were more likely than Caucasians, and women were more likely than men, to report more difficulties in the three activity areas and across all age groups. (CDC, MMWR, Surveillance Summaries, 1999).

Older adults with a disability most commonly have difficulty bathing or showering themselves (7 percent). Six percent of older adults with a disability are not able to dress and groom themselves without help compared to 0 percent of older adults without a disability and 1 percent of those aged 18-64 years old with a disability. Twenty percent of older adults with a disability have some difficulty moving in and out of bed or a chair without help compared to 2 percent of older adults without a disability (BRFSS, 1999).

## Vision Impairment

In 1999, eighteen percent of adults in Arkansas aged 70 and older reported vision impairment. Vision impairment is defined as blindness in one eye, blindness

in both eyes, or any other trouble seeing. Men were less likely than women to report vision impairments. Older adults with vision impairments are twice as likely to report difficulty walking, getting outside, getting into and out of a bed or chair, managing medication, and preparing meals. Older adults with vision impairments are also more likely than sighted, older adults to have experienced falls during the preceding 12 months, to have experienced high blood pressure, heart disease, stroke and depression or anxiety.

Blindness in both eyes was reported by 2 percent of adults aged 65 and older with a disability and 1 percent of those aged 18-64 with a disability. Adults without a disability reported no blindness. (BRFSS, 1999)

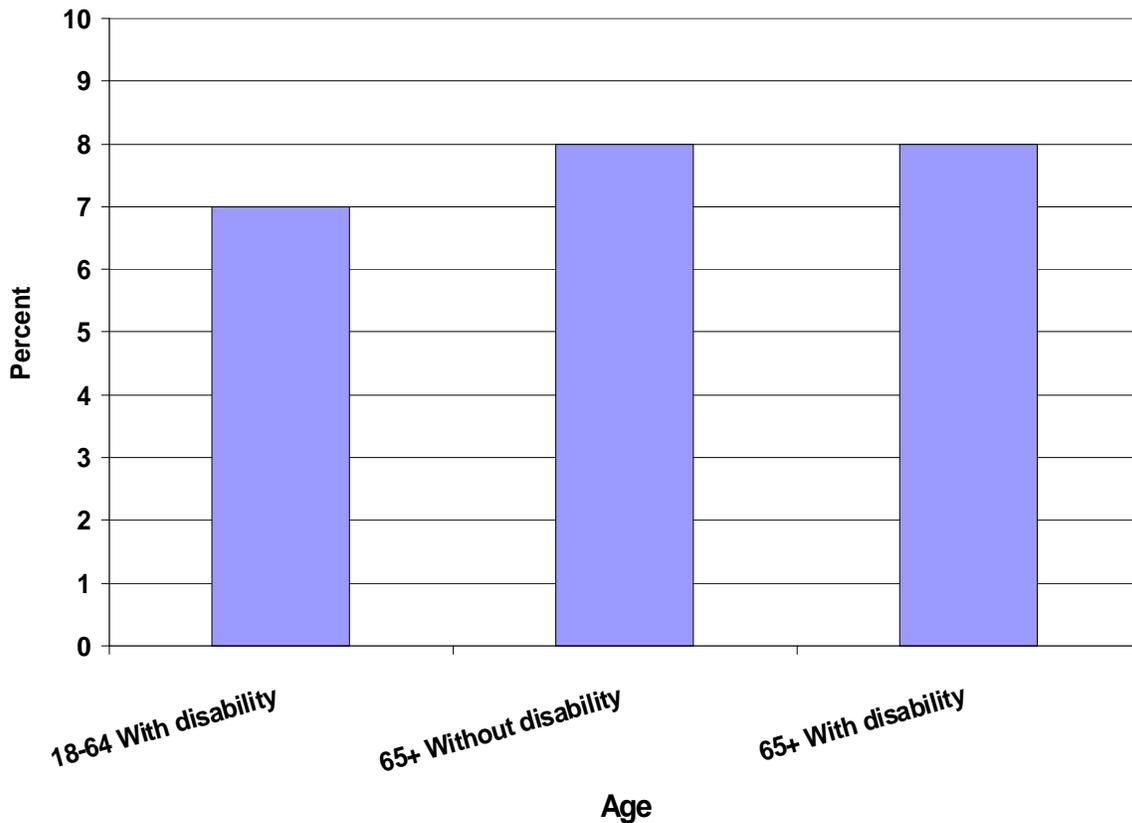
## Hearing Impairment

Hearing impairment is one of the most common conditions affecting older adults, with approximately 33 percent of Americans aged 60 and over and 40-50 percent of those aged 75 and older with hearing loss (National Institutes of Health, 2003). Hearing impairment is defined as deafness in one ear, deafness in both ears, or any other trouble hearing. Hearing loss comes in many forms. It can range from a mild loss in which a person misses certain high-pitched sounds, such as the voices of women and children, to a total loss of hearing. It can be hereditary or it can result from disease, trauma, certain medications, or long-term exposure to loud noise.

In 1999, deafness in both ears was reported by 5 percent of Arkansans aged 65 and older with a disability, 3 percent of older Arkansans without a disability, and 1 percent of those aged 18-64 with a disability. Five percent of older adults with a disability, 4 percent of older adults without a disability and 1 percent of

those aged 18-64 with a disability reported deafness in one ear. Eight percent of older adults with a disability and 8 percent of older adults without a disability could not hear most of the things people say compared to 7 percent of adults aged 18-64 with a disability (Figure 48) (BRFSS, 1999).

**Figure 48: Percentage of Adults Reporting that They Cannot Hear Most of the Things People Say, 1999**



Source: BRFSS, 1999

## Arthritis

Arthritis rarely causes death, but it is the leading cause of disability among U.S. adults. Arthritis affects almost 70 million Americans - one of every three adults. One million Arkansans, or 39 percent of the Arkansas population, suffer from arthritis and related conditions. The burden of arthritis more heavily affects older Arkansans. The prevalence of arthritis is 46 percent among Arkansans aged 45-64 years, and 64 percent among Arkansans aged 65 years and older (Figure 49) (Arkansas Department of Health, The State of Arthritis, 2003).

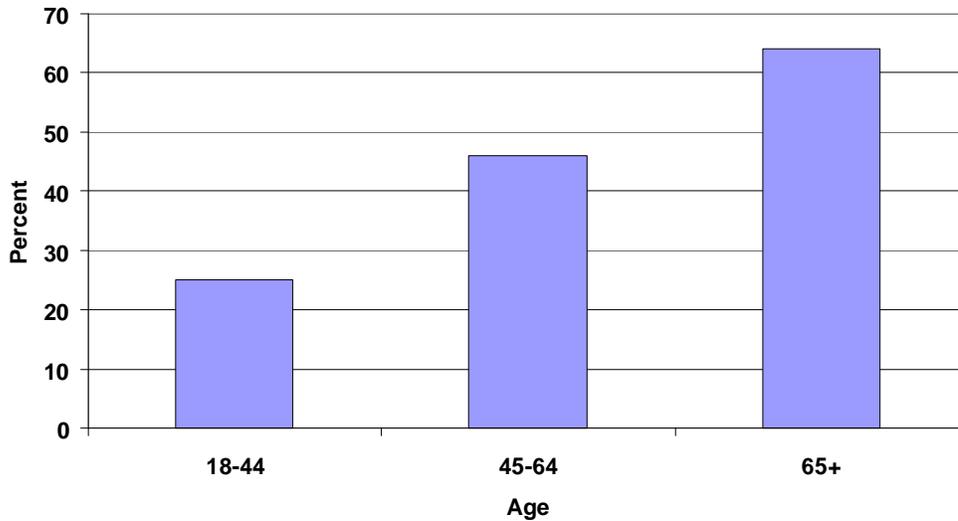
Arthritis affects all races and ethnic groups (Figure 50). The prevalence of arthritis among women aged 65 years and older is greater than among men of comparable age (Arkansas Arthritis Report, 2003).

750,000 hospitalizations and 44 million outpatient visits every year. The majority of persons (61 percent) hospitalized in Arkansas for arthritis are aged 65 years and older (Figure 51).

### Prevention Opportunity

Early diagnosis and appropriate management of arthritis, including self-management activities, such as self-help courses, weight control, and physical activity, can help people with arthritis function better with reduced pain and disability and lower their health care costs.

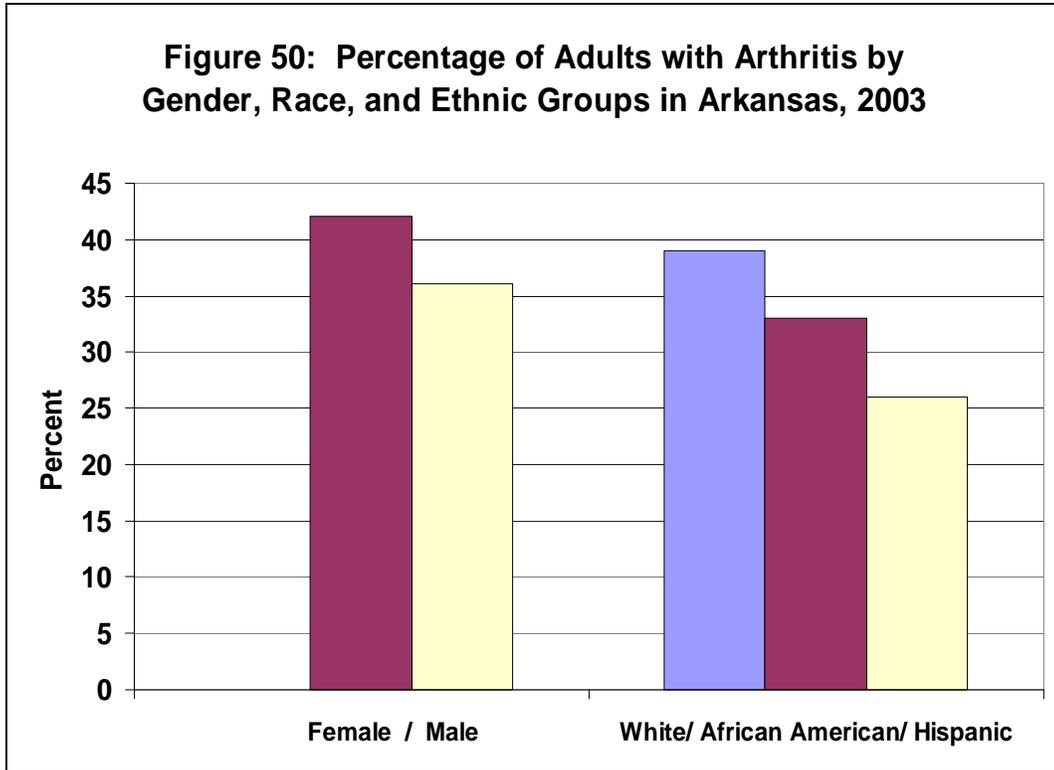
**Figure 49: Percentage of Adults with Arthritis by Age Groups in Arkansas, 2003**



Nationwide, arthritis is responsible for

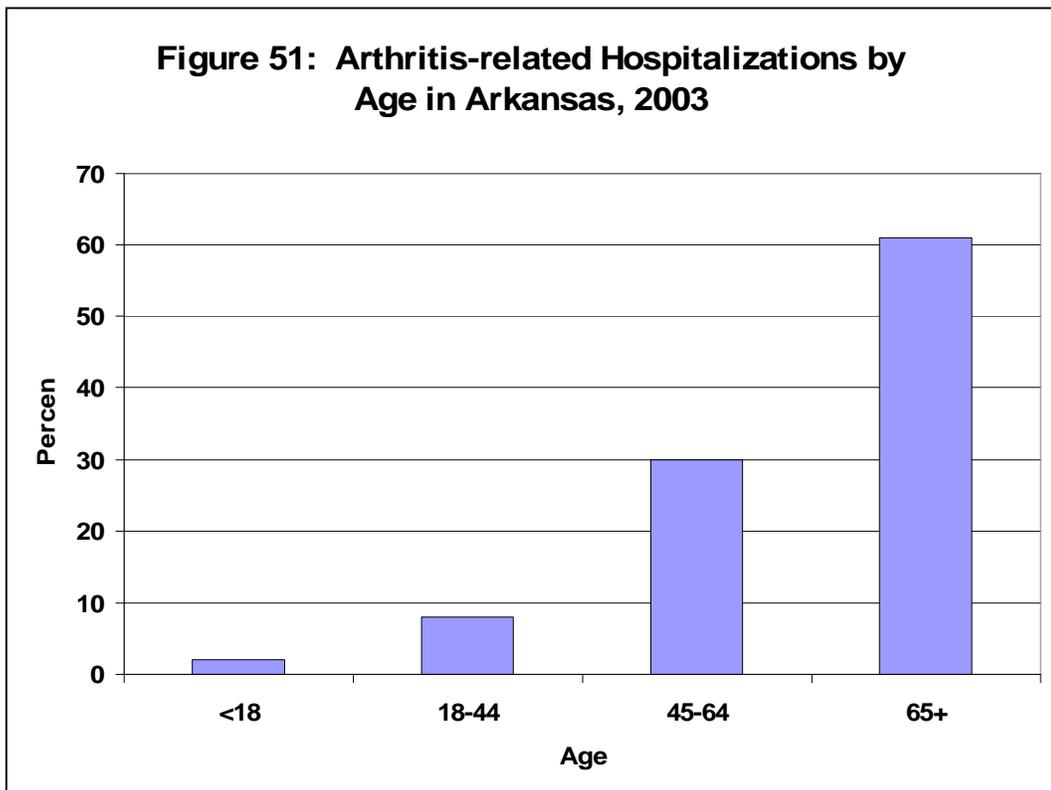
Source: Arkansas Department of Health, The State of Arthritis, 2003

**Figure 50: Percentage of Adults with Arthritis by Gender, Race, and Ethnic Groups in Arkansas, 2003**



Source: Arkansas Department of Health, The State of Arthritis, 2003

**Figure 51: Arthritis-related Hospitalizations by Age in Arkansas, 2003**



Source: Arkansas Department of Health, The State of Arthritis, 2003

## Osteoporosis

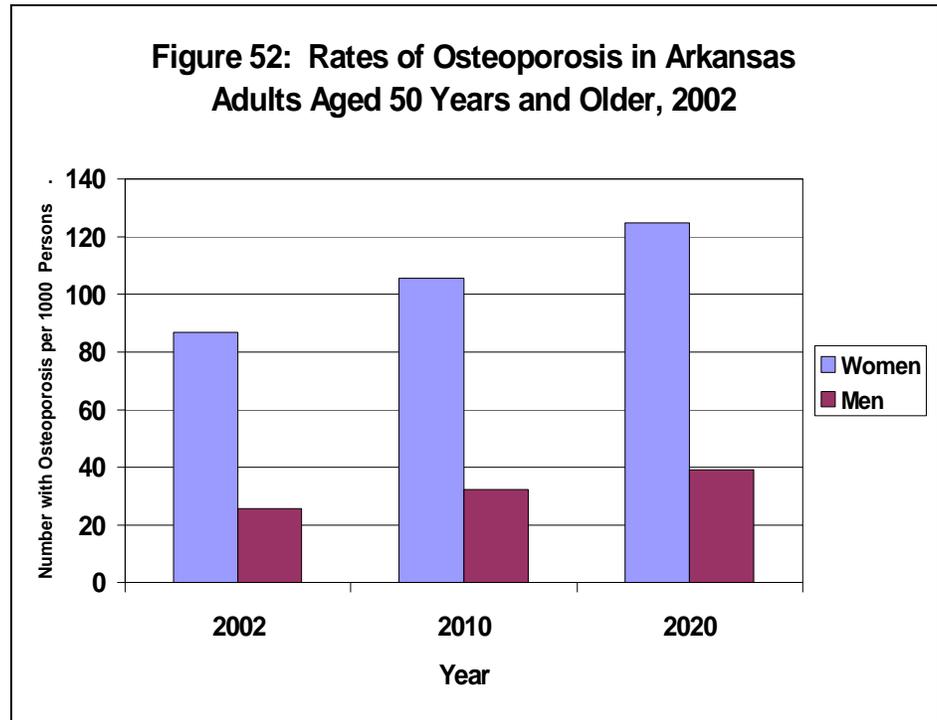
Osteoporosis is a skeletal disorder in which the bones are weakened and the risk of fracture is increased – usually of the hip, spine or wrist. Persons with osteoporosis have decreased bone strength due to low bone density. Persons with osteopenia also have decreased bone density, but it is not yet severe enough to meet the diagnosis of osteoporosis.

Osteoporosis and osteopenia are currently estimated to be a major public health threat for almost 44 million U.S. women and men aged 50 and older. The 44 million people with either osteoporosis or low bone mass represent 55 percent of the people aged 50 and older in the United States. By the year 2010, it is estimated that over 52 million women and men in this same age category will be affected, and, if current trends continue, the figure will climb to over 61 million by 2020. That is, one in two women and one in eight men aged 50 and older can be expected to suffer an osteoporotic fracture in their remaining lifetime (National Osteoporosis Foundation, 2002).

The prevalence of osteoporosis and osteopenia among older U.S. women (aged 50 and older) is 16 percent and 40 percent, respectively. For U.S. men aged 50 and older the prevalence of

osteoporosis and osteopenia is 2 percent and 16 percent, respectively. The prevalence of osteoporosis and osteopenia increases markedly with age. The largest change in prevalence by age occurs with osteoporosis: the prevalence of osteoporosis among women 60 years of age and older (44 percent) is 10 times greater than the prevalence of osteoporosis in women 50-59 years of age (4 percent) (CDC, NHANES, 1994).

The prevalence of osteoporosis in Arkansas follows national trends by increasing with age and being greater among women than men. In 2002, the prevalence of osteoporosis among



Source: National Osteoporosis Foundation, 2002

persons aged 50 and older in Arkansas was approximately 8.5 percent among women, and approximately 2 percent among men. By 2020, it is estimated that the prevalence of osteoporosis will increase to over 12 percent in women and 4 percent in men (Figure 52) (National Osteoporosis Foundation, 2002).

Osteoporosis significantly increases the risk of bone fracture. Each year in the United States approximately 1.5 million fractures are associated with osteoporosis. While any osteoporotic fracture is serious, hip fractures are of greatest public health concern, because the consequences are often devastating. Compared with other osteoporotic fractures, hip fracture results in the highest morbidity and death. Those who experience hip fractures have an increased risk of death during the first 12 months after the fracture. Among those who survive, many experience loss of mobility and independence and may have to enter long-term care facilities. Finally, hip fractures are expensive. A single hip fracture costs approximately \$40,000 (2001 dollars) in medical care, which is more than any other type of osteoporotic fracture (Ray et al., 1997).

#### Prevention Opportunity

For most people, osteoporosis is largely preventable. Prevention is very important, because, while there are treatments for osteoporosis, there is currently no cure. The National Osteoporosis Foundation recommends the following five steps to prevent osteoporosis:

- Get your daily recommended amounts of calcium and vitamin D;
- Engage in regular weight-bearing and muscle-strengthening activities;
- Avoid smoking and excessive alcohol;
- Talk to your doctor about your bone health; and,
- Have a bone density test and take medication when appropriate.

No one step alone is enough to prevent osteoporosis, but all five together may.

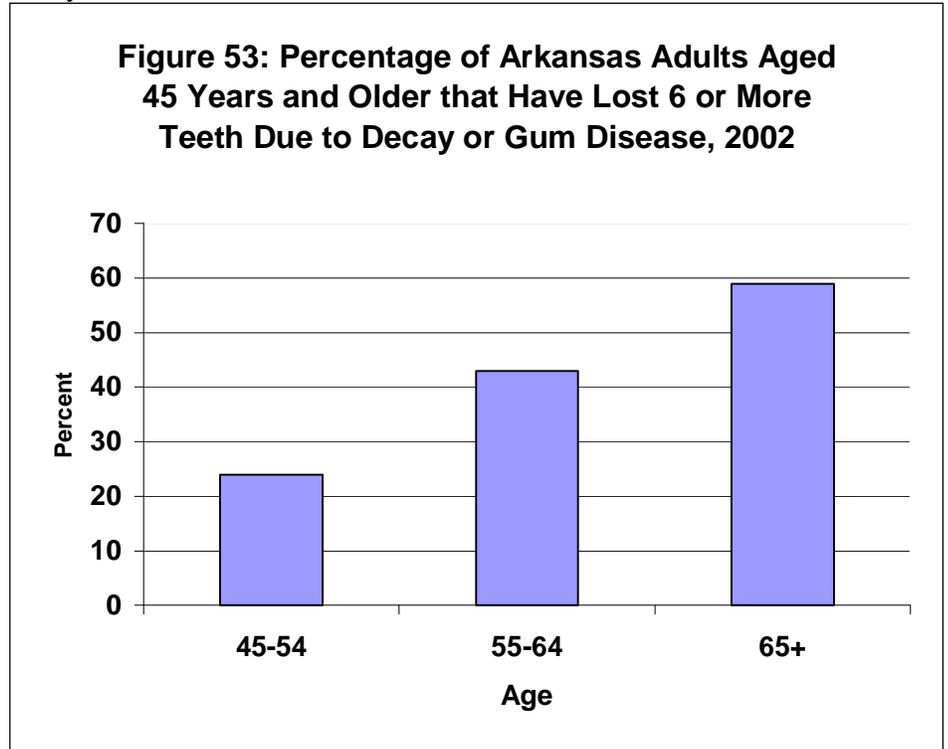
## Oral Health

Oral diseases and conditions are common among older Americans, who grew up without the benefit of community water fluoridation and other fluoride containing products. The baby boomer generation will be the first generation where the majority will have benefited from water fluoridation and fluoride toothpaste. Therefore, they are more likely to maintain their natural teeth over their entire lifetime.

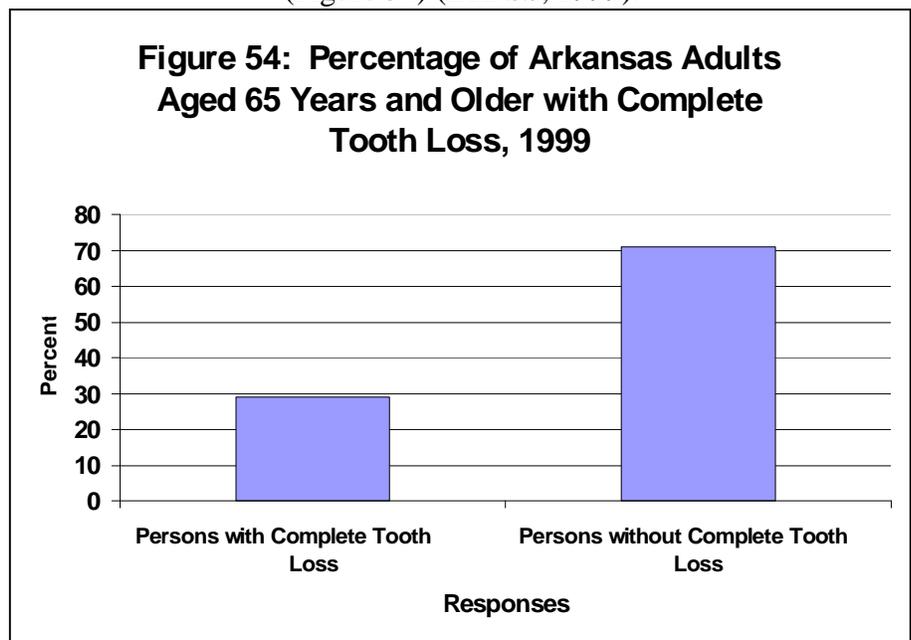
In the United States, about 30 percent of adults aged 65 years and older no longer have any natural teeth because of tooth decay or gum disease. Although the number of adults aged 55 - 64 years missing all their natural teeth has declined over the last twenty years from 33 percent to 20 percent, most adults show signs of gum disease. Severe gum disease affects about 14 percent of adults aged 45 - 54 years and about 23 percent of adults aged 65 - 74 years (CDC, Oral Health for Adults, 2002).

Source: BRFSS, 1999, Percentages are weighted to population characteristics

In 2002, 24 percent of Arkansans aged 45-54 had lost six or more teeth due to decay or gum disease compared to 59 percent of Arkansans age 65 and older (Figure 53).



In 1999, the percentage of Arkansans aged 65 years and older who had lost all natural permanent teeth was 29.2 percent (Figure 54) (BRFSS, 1999).



Being disabled, homebound, or institutionalized increases the risk of poor oral health. In Arkansas, a long-term care oral health needs assessment survey completed in 2002 showed that virtually all (99.9 percent) long term care residents surveyed had been affected by dental disease, with an average of 23 teeth per resident affected by dental disease. More than half (54 percent) of long-term care residents examined were edentulous (i.e. toothless) and, of those, 25 percent did not have dentures. Of the study participants, 51 percent of those aged 65-74 years had lost all of their natural teeth (Mouden & Sledge, 2000).

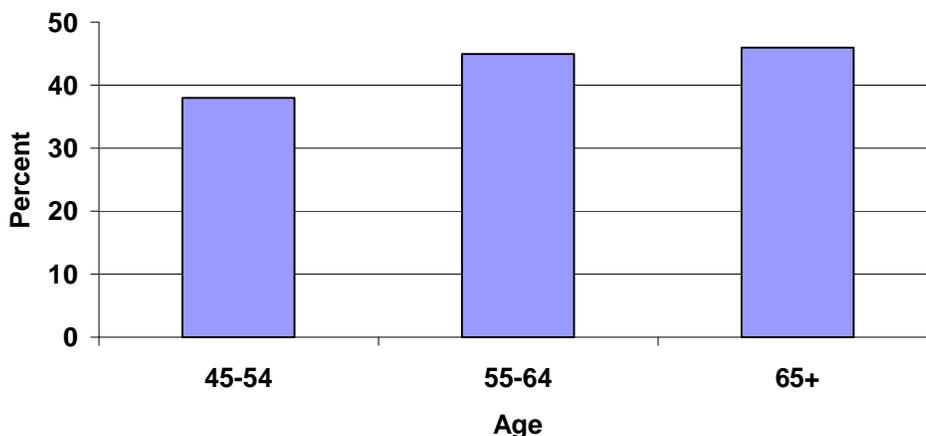
Older persons with and without teeth are at increased risk of oral and pharyngeal cancers, as well as autoimmune disorders

and other chronic disabling conditions that have oral manifestations.

The lack of teeth and lack of adequate dentures (edentulous persons) adversely affects older adults' ability to eat and receive adequate nutrition, because they may choose soft diets and avoid fresh fruits and vegetables. Lack of teeth also adversely affects older adults' ability to communicate (CDC, Oral Health for Adults, 2002).

In 2002, the percentage of Arkansans aged 45 and older that had not visited a dentist or dental clinic within the past year ranged from 38 percent to 46 percent. The percentage of persons that have not visited a dentist or dental clinic within the past year increased with age (Figure 55).

**Figure 55: Percentage of Arkansas Adults Aged 45 Years and Older that Have Not Visited a Dentist or Dental Clinic within the Past Year, 2002**



BRFSS 2002, Percentages are weighted to population characteristics.

Of those persons who did visit a dentist or dental clinic within the past year, 58 percent of persons aged 45-54 reported having their teeth cleaned; 59 percent of persons aged 55-64 reported having their teeth cleaned; and, 61 percent of persons aged 65 and older reported having their teeth cleaned.

#### Prevention Opportunity

The oral health of older adults can be improved and maintained through early prevention, improved access to care, and training of caregivers at all levels. Some preventive strategies older adults and caregivers can use include:

- drinking fluoridated water and using fluoridated toothpaste;
- daily tooth brushing and flossing;
- getting professional oral health care, even for those who have no natural teeth;
- avoiding tobacco;
- limiting alcohol; and,
- having caregivers provide the daily oral care for those who are unable to perform these activities for themselves.

## Incontinence Issues

Although the issue of incontinence is an important factor in the quality of life of older adults, resources to examine this issue were not available at this time.

## Mental Health Issues

Mental health is also a major factor in the health and quality of life of older adults. We regret that resources to examine this issue were not available at this time.

## Health-related Behaviors among Older Adults

Health-related behaviors alone can affect health and quality of life.

Individuals who modify their health-related behaviors - increasing physical activity, improving nutrition, decreasing tobacco use, reducing blood cholesterol levels and reducing high blood pressure - can reduce their risk of disease and disability, and enhance their quality of life (National Academy on an Aging Society, 2000).

**Table 4: Health-related Behaviors and Conditions Associated with Leading Causes of Death and Disability**

	Physical Inactivity	Poor Nutrition	Tobacco Use	High Blood Pressure	High Cholesterol	Obesity/ Overweight
Heart disease	X	X	X	X	X	X
Stroke	X	X	X	X	X	X
Cancer	X	X	X			X
Chronic Lower Respiratory Disease	X		X			
Influenza/ Pneumonia	X	X	X			
Diabetes	X	X		X	X	X
Alzheimer's Disease	X	X		X	X	X
Fall-related Injuries	X	X				X
Arthritis	X	X	X			X
Osteoporosis/ Osteopenia	X	X	X			
Oral Health		X	X			

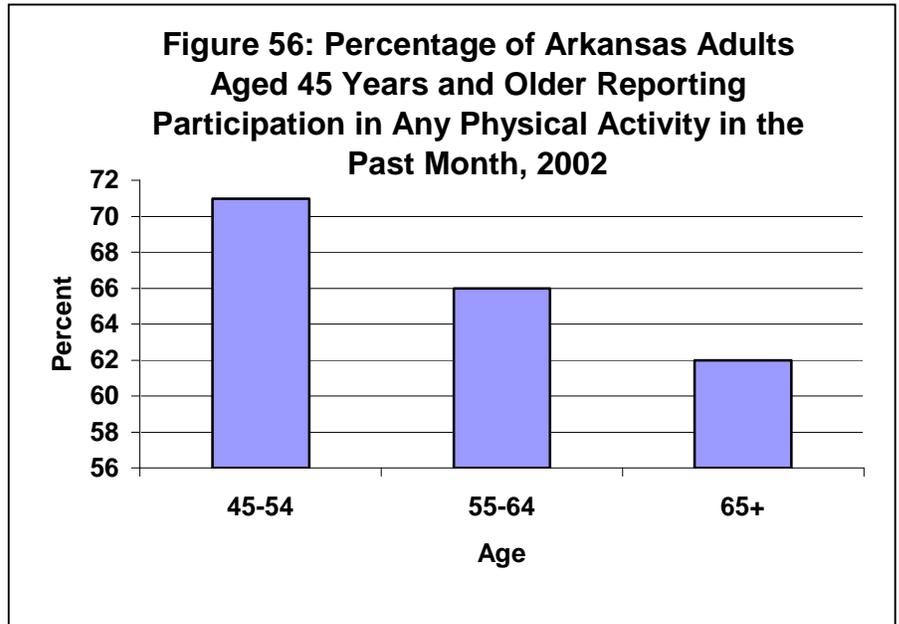
## Physical Inactivity

The lack of physical activity is a leading contributor to disease and disability. The Centers for Disease Control and Prevention ranks physical inactivity as the second leading preventable cause of death. It accounts for 22 percent of colon cancer, 18 percent of osteoporotic fractures, and 12 percent of diabetes and high blood pressure.

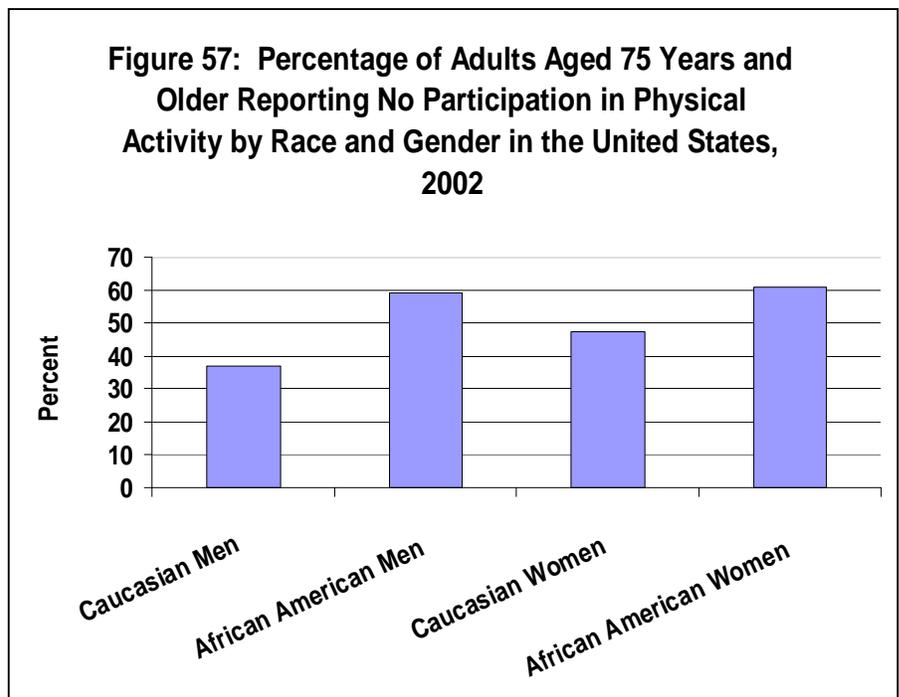
In Arkansas, regular physical activity decreases with age. Approximately 70 percent of Arkansans aged 45-54 participated in physical activity during the past month compared to 66 percent of Arkansans aged 55-64, and 62 percent of Arkansans aged 65 and older (Figure 56) (BRFSS, 2002).

In the United States, among persons aged 75 and older, the prevalence of inactivity is 47 percent among Caucasian women, 59 percent among African American men, and 61 percent among African American women, compared to the 37 percent among Caucasian men. These data highlight the disparities in inactivity among different gender and racial/ethnic groups (Figure 57). It is estimated that older Arkansans follows the national trend for physical inactivity for gender and racial/ethnic groups.

Approximately 34 percent of Americans aged 50 and older are sedentary, and 33 percent of men and 50 percent of women aged 75 and older engage in no leisure-time physical activity. (National Blueprint for Increasing Physical Activity Among Adults Age 50 and Older, 2001)



Source: BRFSS 2002, Percentages are weighted to population characteristics.



Source: BRFSS, 2002

Regular physical activity reduces a person's risk for heart attack, colon cancer, diabetes, high cholesterol, and high blood pressure. Physical activity also helps to control weight; contributes to healthy bones, muscles, and joints; helps to relieve the pain of arthritis; reduces symptoms of anxiety and depression; and can decrease the need for hospitalizations, physician visits, and medications. Finally, physical activity does not need to be strenuous to be beneficial. People of all ages benefit from moderate physical activity.

#### Prevention Opportunity

Older adults can obtain significant health benefits with a moderate amount of physical activity three or more times per week. Moderate physical activity means at least 30 minutes of an activity that increases the heart rate or makes one breathe harder. Additional health benefits can be gained through greater amounts of physical activity, either by increasing the duration, intensity, or frequency of activity.

Previously sedentary older adults, who begin physical activity programs, should start with short intervals of moderate physical activity (5-10 minutes) and gradually build up to at least 30 minutes on three or more days of the week.

Older adults can also benefit from muscle-strengthening activities, flexibility activities, and balance activities. Stronger muscles and improved balance help reduce the risk of falling and improve one's ability to perform the routine tasks of daily life.

## Poor Nutrition

Good nutrition, including a diet that is low in saturated fat and cholesterol and contains five or more servings of fruits and vegetables each day, is vital to maintaining good health. Improving the diet of older adults is thought to extend the productive life span of Americans, enhance quality of life, and reduce the occurrence of chronic diseases, such as heart disease, stroke, some types of cancer, diabetes, and osteoporosis.

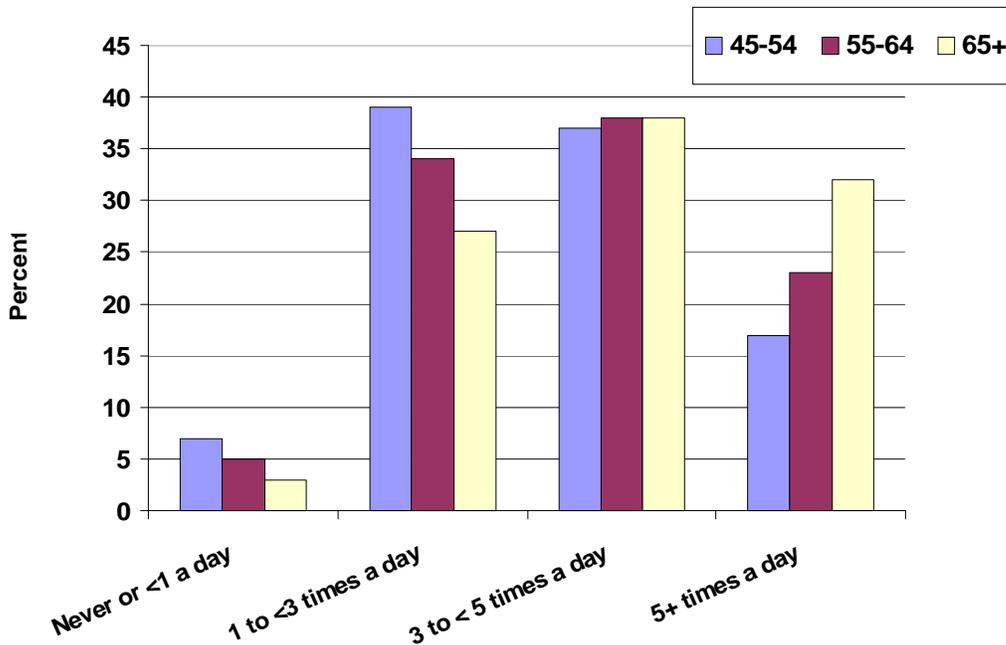
In Arkansas, approximately 30 percent of adults aged 65 years and older meet the 5-a-day recommendations for fruit and vegetable consumption (BRFSS, 2002) (Figure 58).

### Prevention Opportunity

Obstacles to good nutrition among older adults include lifestyle, physical, and emotional factors. These obstacles include loss of appetite caused by loneliness and depression, low income, cooking for one person, loss of natural teeth, poor fitting dentures, reduced sense of smell and taste, side effects of medications, limited access to grocery stores, and limited mobility for tasks, such as grocery shopping and opening food containers.

Providing information on sound nutrition practices, cooking demonstrations, recipe modifications to make favorite foods more nutritious (for example, decrease fat, sodium, and sugar, and increase fiber and nutrients), as well as reducing the number of servings from a recipe, may help older adults improve their nutritional status.

**Figure 58: Frequency of Fruits and Vegetables Consumption per Day in Arkansas Adults Aged 45 Years and Older, 2002**



Source: BRFSS 2002, Percentages are weighted to population characteristics

## Tobacco Use

According to the Centers for Disease Control and Prevention, tobacco use remains the leading preventable cause of death in the United States, causing more than 440,000 deaths each year and resulting in an annual cost of more than \$75 billion in direct medical costs (CDC, Wonder, 2002).

Data from Arkansas show that in 2002, 11 percent of adults aged 65 years and older smoked (Figure 59). Of those, 35 percent smoked more than a pack of cigarettes a day, 62 percent smoked more than five cigarettes a day, and 62 percent had their first cigarette of the day within thirty minutes of first waking up (Arkansas Department of Health, Adult Tobacco Survey, 2002).

Smoking is known to cause chronic lung disease, heart disease, and stroke, as well as some types of cancer. Smokeless tobacco and cigars also have deadly consequences, including some types of cancer.

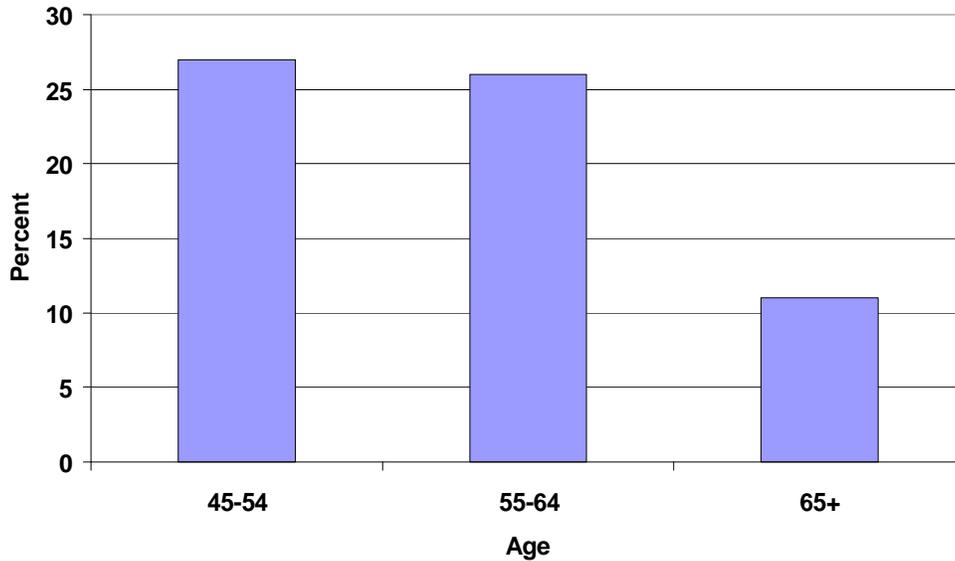
The cost of smoking to Medicaid in 1998 was more than \$24 billion, or 14 percent of all Medicaid expenditures in the United States. This estimate does not include the costs of smoking-related newborn baby disorders (CDC, Wonder, 2002). Smoking cessation has major and immediate health benefits for men and women of all ages, regardless of whether they have a smoking-related disease. Forty percent of adults in Arkansas aged 65 and older and 27 percent of adults in the 40-64 age group reported that they were former smokers (Figure 61).

The percentage of former smokers in Arkansas aged 40-64 years and those aged 65 years and older that quit smoking less than five years ago is 25 percent and 13 percent, respectively. Of those Arkansans aged 40 years and older who smoke, approximately 40 percent have attempted to stop smoking. Among those who have not yet attempted to stop smoking, over 60 percent plan to quit, but not in the next thirty days (Arkansas Department of Health, Adult Tobacco Survey, 2002).

### Prevention Opportunity

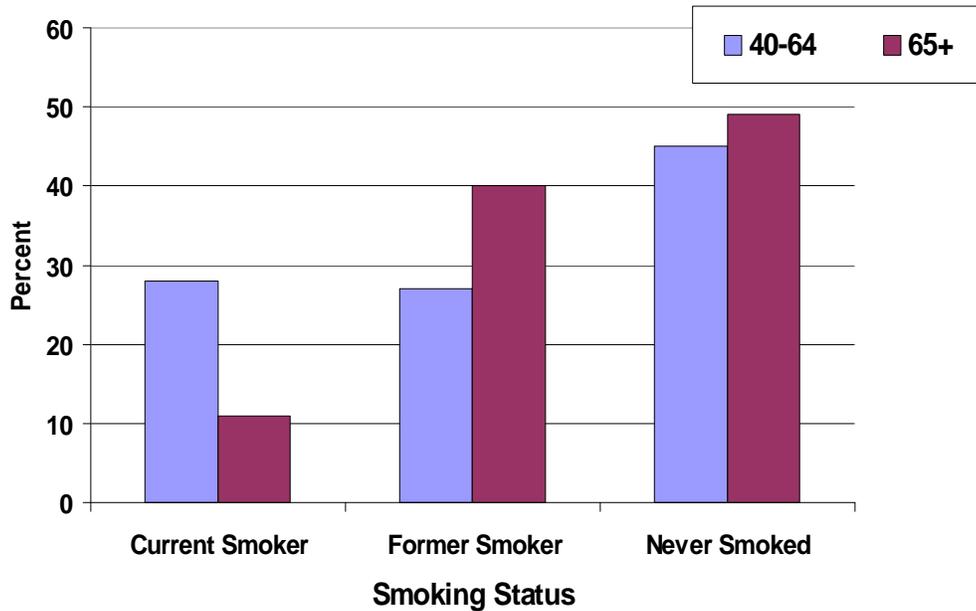
Tobacco use is the single most preventable cause of death and disease among older adults. Contrary to popular belief, older adults can still benefit from tobacco cessation. Prevention opportunities among older adults include quitting tobacco use (smoking, chewing and using snuff) and eliminating exposure to secondhand smoke.

**Figure 59: Percentage of Arkansas Adults Aged 45 Years and Older Reporting Cigarette Use, 2002**



Source: BRFSS, 2002, Percentages are weighted to population characteristics

**Figure 60: Smoking Status of Arkansas Adults Aged 40 Years and Older, 2002**



Source: Arkansas Department of Health, Adult Tobacco Survey, 2002

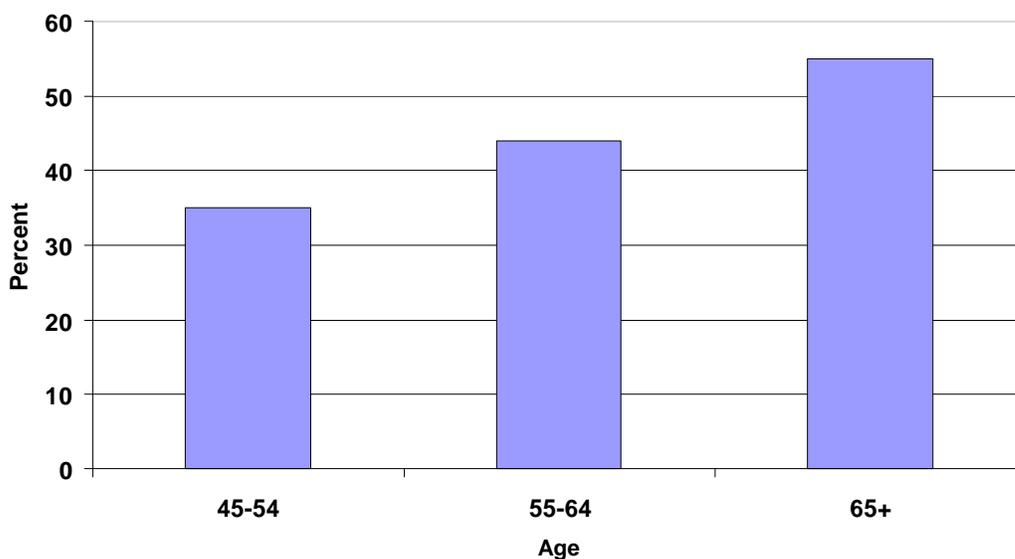
## High Blood Pressure

High blood pressure for adults, which is also known as hypertension, is defined as a systolic blood pressure of 140 or higher, or a diastolic pressure of 90 or higher. Normal blood pressure is a systolic blood pressure less than 120 and a diastolic blood pressure less than 80. Prehypertension is a systolic blood pressure between 120-139 and a diastolic blood pressure between 80-89.

High blood pressure is the leading risk factor for heart disease and stroke. It

generally affects people later in life, with 62 percent of Americans aged 55 and older having high blood pressure. High blood pressure is easily detectable, and it is one of the most controllable chronic conditions. However, data show that only 27 percent of people with high blood pressure have it under control. It is especially prevalent among African Americans and women over the age of 64 years (National Academy on an Aging Society, 2000).

**Figure 61: Percentage of Arkansas Adults Aged 45 Years and Older with High Blood Pressure, 2002**

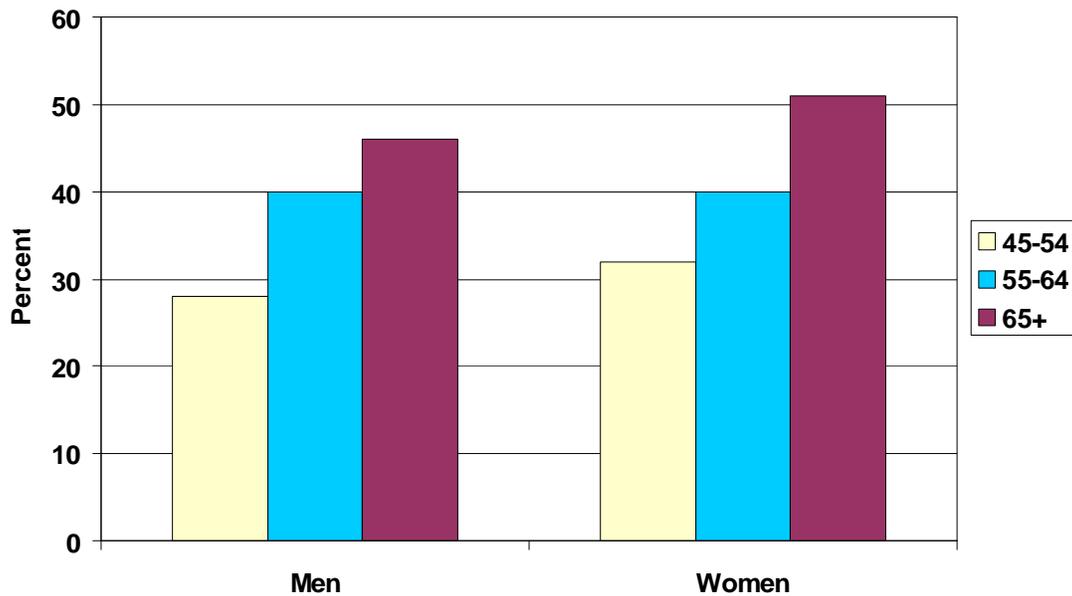


Source: BRFSS 2002, Percentages are weighted to population characteristics

In Arkansas, the prevalence of high blood pressure increases with age, following the national trend. Over 50 percent of Arkansans aged 65 and older have high blood pressure compared to 40

percent of Arkansans aged 55-64, and 30 percent of Arkansans aged 45-54 years (Figure 61). The prevalence of high blood pressure is higher among women than men in all age groups, especially among those aged 65 and older (Figure 62) (BRFSS, 2002).

**Figure 62: Percentage of Arkansas Adults with High Blood Pressure by Gender and Age, 2002**



Source: BRFSS, 2002

### Prevention Opportunity

Early detection, treatment and control of high blood pressure are important, because the consequences of uncontrolled high blood pressure are extremely serious, including heart attack, stroke, kidney failure, and Alzheimer's disease. High blood pressure for adults is defined as a systolic pressure of 140 or higher, or a diastolic pressure of 90 or higher. Optimal blood pressure is a systolic blood pressure less than 120 and a diastolic blood pressure less than 80. The Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC-7) recommends that adults have their blood pressure checked regularly.

High blood pressure is easily detectable and often controllable with lifestyle modifications. Lifestyle modifications include:

- maintaining a healthy weight;
- being physically active;
- following a healthy eating plan, that emphasizes fruits, vegetables, and low fat dairy foods;
- choosing and preparing foods with less salt and sodium; and,
- if one drinks alcoholic beverages, drinking in moderation.

If lifestyle changes alone are not effective in keeping blood pressure controlled, it may be necessary to use medications.

## High Cholesterol

Borderline high cholesterol is defined as having total blood cholesterol levels between 200-239 milligrams per deciliter (mg/dL), which is above the desirable level (less than 200mg/dL). People with high cholesterol levels (240 mg/dL or higher) are considered to be at high risk for heart disease and stroke (American Heart Association, 2002).

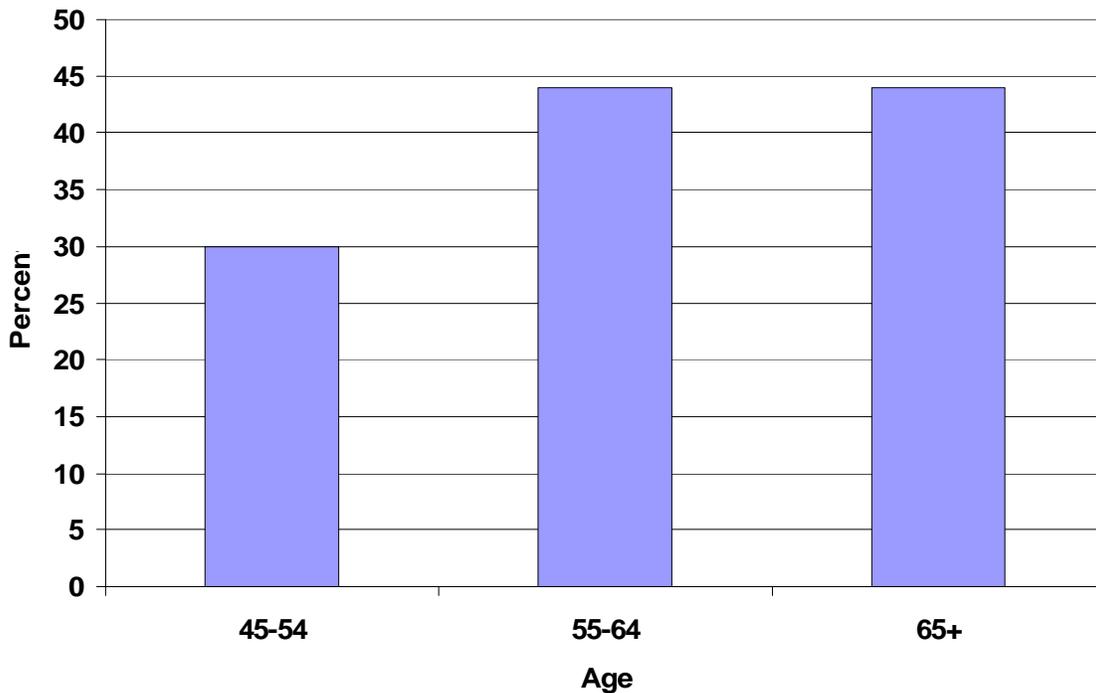
Studies among people with heart disease have shown that lowering cholesterol can reduce the risk of dying from heart disease, having a nonfatal heart attack, and needing heart bypass surgery or angioplasty. Studies among people

without heart disease have shown that lowering cholesterol can reduce the risk for developing heart disease. This is true for those with high cholesterol levels and even for those with average levels.

In 2002, 40 percent of Arkansans aged 55 years and older reported having been told by a doctor or other health professional that they have high cholesterol (Figure 63) (BRFSS, 2002).

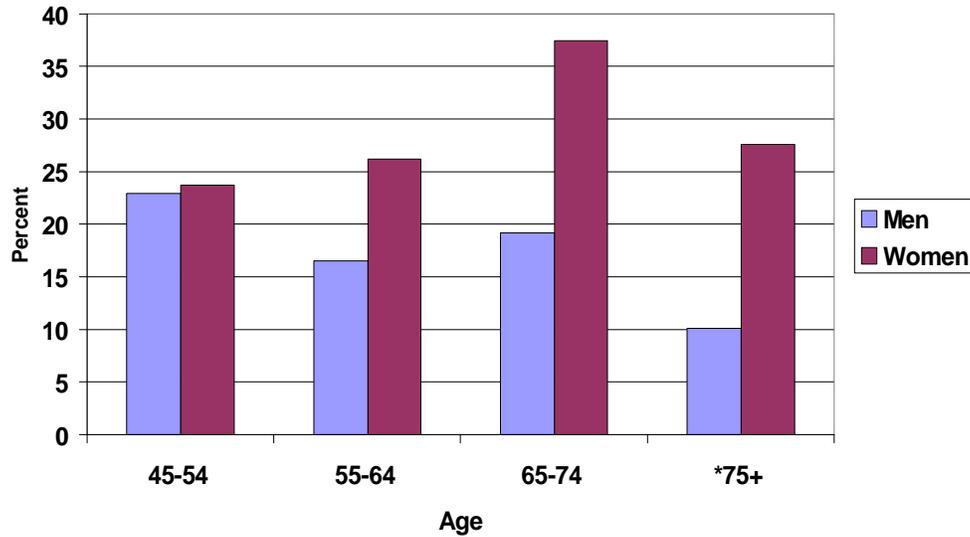
High cholesterol is a problem among both men and women. As women age, they are increasingly likely to have high cholesterol levels, as demonstrated in Figure 64.

**Figure 63: Percentage of Arkansas Adults Aged 45 Years and Older with High Cholesterol, 2002**



Source: BRFSS 2002, Percentages are weighted to population characteristics.

**Figure 64: Percentage of United States Adults Aged 45 Years and Older with High Cholesterol, 1999-2000**



Serum cholesterol  $\geq 240$  mg/dL

\*Estimate for men 75+ considered unreliable.

Source: CDC, NHANES

### Prevention Opportunity

Blood cholesterol levels can be reduced by eating healthy foods, losing weight (if needed) and increasing physical activity. Medication is also available to lower blood cholesterol levels.

Desirable or optimal blood cholesterol level for persons with or without existing heart disease is total cholesterol less than 200 mg/dL. A lipoprotein profile can be done to measure several different kinds of cholesterol as well as triglycerides (another kind of fat found in the blood). Low density lipoprotein (LDL) cholesterol (“bad” cholesterol) should be less than 100 mg/dL. High density lipoprotein (HDL) cholesterol (“good” cholesterol) should be 40 mg/dL or higher. Triglycerides should be less than 150 mg/dL.

The National Cholesterol Education Program recommends that adults have their cholesterol levels checked at least every 5 years.

## Overweight and Obesity

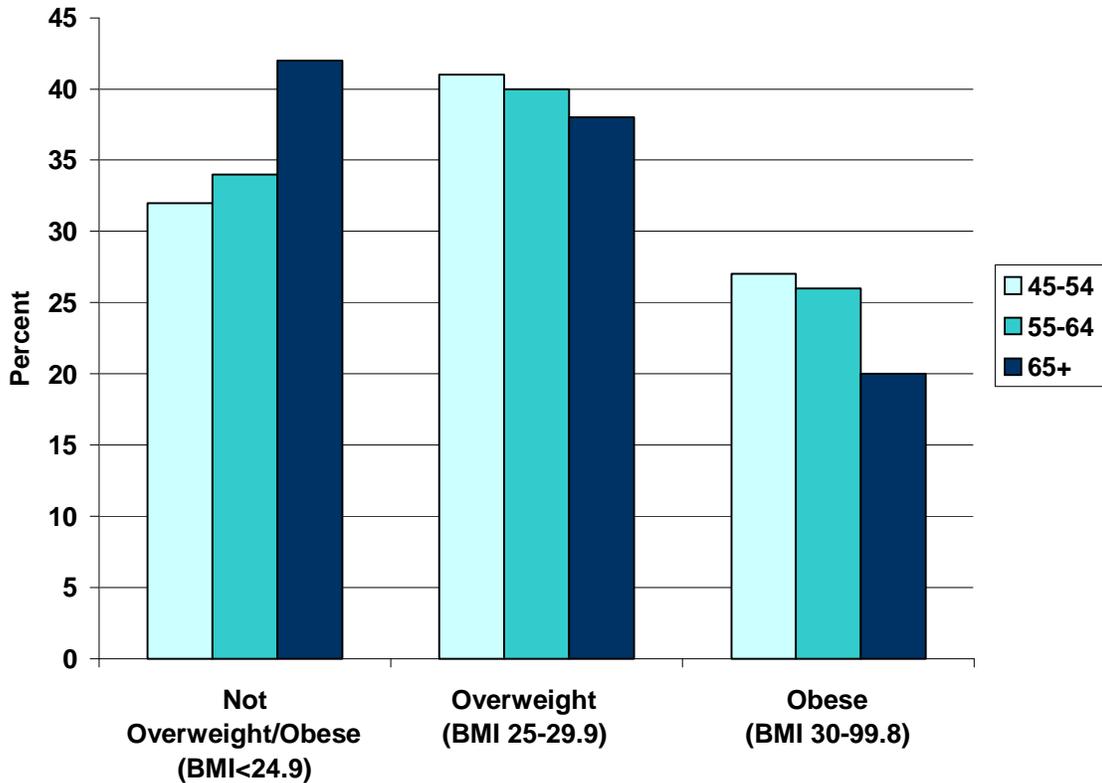
Overweight is defined as a body mass index (BMI) between 25 and 29.9.

Obese is a BMI of 30 and above. In the United States, 15 million people over the age of 50 are obese. This represents one in four adults over the age of 50. Since 1991, rates of obesity have increased dramatically. In 2001, 10 percent of U.S. adults between the ages of 50 and 69 were obese, and approximately 6 percent of adults aged 70 years and older were obese (BRFSS, 2001). Substantial increases in obesity among adults of all ages suggest that obesity among older Americans is likely

to become a greater problem in the future.

In 2002, over 30 percent of Arkansans in the 65 and older age group were overweight and approximately 20 percent were obese. The numbers of overweight and the obese individuals in the 45-54 and the 55-64 age groups were greater than the 65 and older age group. An increase in the overweight and obese individuals aged 65 and older is predicted, as overweight and obese baby boomers begin turning 65 in 2011 (Figure 65).

**Figure 65: Weight Classifications Based on BMI for Arkansas Adults Aged 45 Years and Older, 2002**



Source: BRFSS 2002, Percentages are weighted to population characteristics.

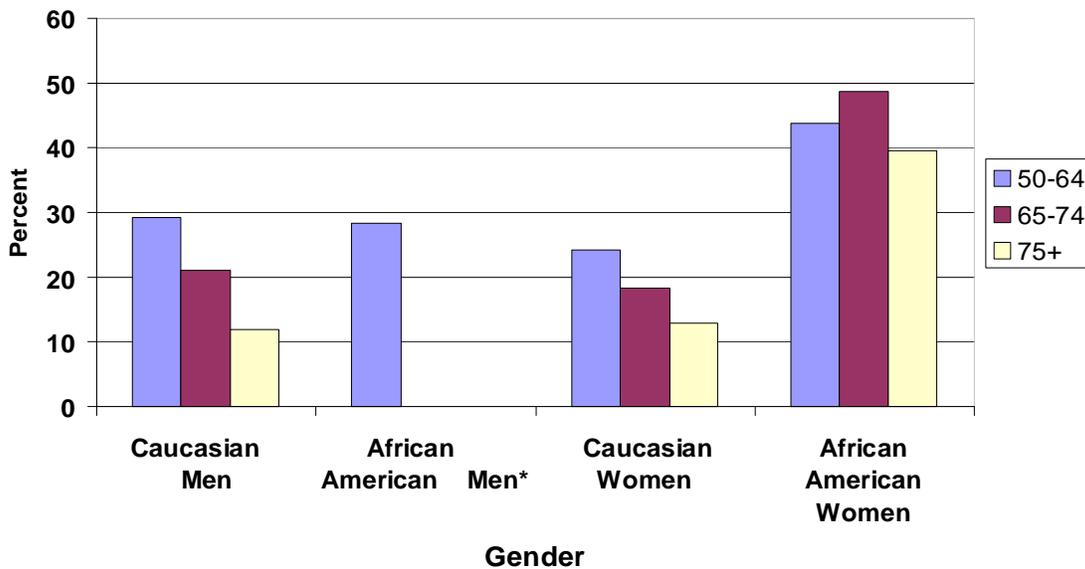
Obesity among older adults is especially prevalent among African American women (Figure 66). Forty-nine percent of African American women aged 65-74 are obese compared to only 18 percent Caucasian women in this same age category.

Overweight and obesity are major contributors to many preventable causes of death and disability. People who are overweight or obese are at increased risk for heart disease, high blood pressure, diabetes, arthritis-related disabilities, and some cancers. Obese older adults are also more likely to be severely disabled than those who are not obese.

**Prevention Opportunity**

For older adults, the strategies for prevention and treatment of obesity should include accessible, progressive, affordable programs to increase physical activity, improve nutrition, and encourage lifestyle modifications that are easily incorporated into daily living. The promotion of regular physical activity and healthy eating, and the creation of social and built environments that support these behaviors are essential to reducing the epidemic of obesity.

**Figure 66: Percentage of Obese Adults in Arkansas by Age, Race, and Gender Groups, 1998-2000**



\*Data for African American Men aged 65 and older, not available.  
Source: BRFSS, 1998-2000

Dear Reader,

Your interest in the Healthy Aging Report for Arkansas is greatly appreciated.

Clearly, one of the most striking features of the expected population growth in Arkansas is the remarkable increase in the number of Arkansans who will reach the ages of 65 years and older. It is anticipated that by 2025, approximately one in every four Arkansans will be in that age group.

A population where one out of every 4 persons is an older adult could result in many potential benefits to Arkansas communities, such as caregiving, civic engagement, and historical and societal wisdom. If acted upon, this vast resource of knowledge and experience could be re-invested to improve the quality of life for all residents of our communities. This opportunity is tempered, however, by the fact that this age group currently experiences the country's highest rates of chronic diseases that result in prolonged disability, poor quality of life and premature death.

The current generation of older Arkansans is generally healthier than the preceding generation. Yet, there is great concern that over the next 10 to 20 years the improved health and reduced disability currently experienced will be offset due to the marked increase in obesity currently seen among Arkansans in their middle years. This increase in the number of persons with obesity, chronic disease and disability will result in greatly increased demands for health care and related services as they age.

The higher percentage of Arkansans who will be 65 and older will result in a higher proportion of working Arkansans who must provide care for their aging loved ones. This balance is described by the state's dependency ratio, which is the number of persons who are under age 18 plus those who are over age 64, compared to the number of adults who are between 18 and 64. For 2000, the dependency ratio for Arkansas was 66.8--meaning there were over 66 "dependents" for every 100 working-age adults. This ratio is expected to increase markedly as Arkansas baby boomers begin turning 65 in 2011. This ratio signifies the increasing burden that will fall on the shoulders of working adults as they struggle to care for aging parents and other relatives.

This phenomenon will occur in a setting where many older Arkansans, who frequently live in poverty, will be unable to afford the health care and services they need to remain independent. It is not hard to imagine a situation in which there is great competition for federal, state and private dollars, and a resulting shift in funds away from services to children to providing care for the elderly. If adequate funds are not available, many working adults may find it necessary to leave the workforce in order to provide care for their family members.

One of the implications of this report is to inform the public and to take steps now to decrease chronic disease among both younger and older adults in order to prevent or decrease disability and premature death among Arkansans. This means that we must all be a part of the solution by adapting our lifestyles to increase physical activity, improve our diets and avoid exposure to tobacco

products, which are the major risk factors for developing chronic disease. Our parents and children must be encouraged to do the same.

You are invited to improve your health and the health of your family by participating in the local plans that your community is developing to increase physical activity, improve nutrition and decrease smoking through the Healthy Arkansas Initiative. To learn about the activities and resources available in your hometown and how to get involved, please visit the Arkansas Department of Health website at <http://www.healthyarkansas.com/>. Information about resources and strategies to improve your health are available through the Healthy Arkansas website at <http://www.arkansas.gov/ha/home.html> or by calling 1-800-235-0002.

The research evidence is clear. If we are going to sustain these lifestyle changes, we will have to do this as a community, not simply as individuals. Policies to enable communities to support healthy lifestyles are urgently needed. In order for these things to happen, we must change how we view “getting old”. We should view aging as a desirable process by which we emerge into our full maturity, rather than the perception of growing old as an unavoidable process of decline and inevitable ill health.

Again, I want to thank you for your interest in our report. I hope you will join us as we continue to evolve and attempt to understand the trends and aging-related issues. Please share your ideas and give us input.

Sincerely,

A handwritten signature in black ink that reads "Jennifer Dillaha". The signature is written in a cursive, flowing style.

Jennifer Dillaha, MD  
Medical Leader Chronic Disease  
Arkansas Department of Health

## Healthy Arkansas: For a Better State of Health

In May 2004, Governor Mike Huckabee launched the Healthy Arkansas Initiative to improve the state of health in Arkansas. Through this initiative, the Governor has outlined plans to transform Arkansas from one of the least healthy into one of the healthiest states in the country. The burden of chronic diseases, including heart disease, cancer, stroke, and diabetes, is higher in Arkansas than in the nation. Tobacco use, physical inactivity and obesity are the leading causes of these disabling chronic conditions. To combat these factors, the Healthy Arkansas Blueprint was developed to assist communities as they implement strategies to promote healthy lifestyle changes that ultimately will reduce the burden of chronic diseases among their citizens.

The Healthy Arkansas Initiative includes strategies that focus specifically on three major population groups:

- Children in schools;
- Adults in worksites; and,
- Older adults living in the community

The Initiative is a statewide effort that includes specific evidence-based interventions that promote healthy behaviors that can lead to improved health among Arkansans of all ages. Many of the strategies in the Blueprint target all three population groups. However, several physical activity and nutrition strategies were included to meet the needs of persons aged 50 and older. These strategies also include potential intergenerational activities, such as walking programs and community gardens, which could be implemented by local communities.

Hometown Health Coalitions and other state and local partnerships are providing support to local communities for implementing Healthy Arkansas strategies. Also, under the Healthy Arkansas umbrella, the Arkansas Department of Health is working to build on and expand current programs and partnerships like those in cardiovascular health, diabetes, tobacco prevention and control, arthritis, and comprehensive cancer control.

Since the initiation of Healthy Arkansas in May 2004, members of the Health Department staff have worked closely with the Governor's office to develop awards that recognize the efforts of communities and businesses through the Healthy Community and the Healthy Restaurant Awards. Other programs under development for 2005 include a Worksite Wellness program, with a pilot for employees in the Health Department and the Department of Human Services, and a Worksite Wellness Toolkit to be distributed to interested state agencies and private sector businesses.

Healthy Arkansas is a "work in progress". It provides the foundation for building a better state of health with the flexibility to grow and adjust as our population changes and new needs are identified.

## **Funding**

This report was made possible by funding received through the Master Tobacco Settlement dollars. The tobacco funds were made available by the good people of Arkansas, who voted for and passed the initiated CHART Plan that ensures that all Tobacco Settlement dollars go toward improving the health of Arkansans.

## **Special Thanks**

Thanks to all those who provided insight and professional guidance. There are many persons who contributed to the data collection, writing and review of this report. I would especially like to thank Partners for Inclusive Communities, namely Deborah Gangluff, MS, ScD (our primary wordsmith); Leanne Whiteside-Mansell, EdD, Yousef Fahoum, MAP, and Jana Villemez; colleagues at the Arkansas Department of Health, including Appathurai Balamurugan, MD, MPH; Bettye Watts, MEd; our CDC Prevention Specialist, Kristine Day, MPH; our collaborators at University of Arkansas at Little Rock, Jerry Bell and Dana Hobby, RN, CHES; and the Arkansas Department of Human Services, Division of Aging and Adult Services, Herb Sanderson.

## **Contact Information**

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## **Methodology**

This report was prepared using existing data and information from federal and state sources. Most of the data used came from census data and the Centers for Disease Control and Prevention (CDC), especially the Behavioral Risk Factor Surveillance System (BRFSS). Other general sources of data include the U.S. Census Bureau, Arkansas Foundation for Medical Care (AFMC), and the Arkansas Department of Health.

Census data is demographic data collected every ten years by the United States Census Bureau. Census data illuminate the demographic characteristics of the United States population and subpopulations (subdivided by age, race, occupation, geography, etc.). These periodic population censuses are important sources of data on the size, distribution, and characteristics of the United States population.

The Centers for Disease Control and Prevention, a division of the United States Department of Health and Human Services, is key in developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people. The CDC processes, analyses, and publishes periodic reports on death and disease data ([cdc.gov](http://cdc.gov)). The CDC also conducts many ongoing surveys including the Behavioral Risk Factor Surveillance System (BRFSS). The CDC, through its National Center for Health Statistics (NCHS), developed standard core questions for states to use to provide data about personal health behaviors that could be compared across states to track health risks. The BRFSS was started in 1984 and data is collected by telephone interviews.

# Appendices

## Appendix A: Glossary

**Activities of Daily Living (ADL):** Everyday activities that people normally do to function in life. These include bathing, dressing, toileting, eating, and getting in and out of beds and chairs.

**Alzheimer's Disease:** A disease of the brain which causes gradual loss of ability in memory, thinking, reasoning, judgment, orientation, and concentration which progresses and worsens over time.

**Arthritis:** A disease in which inflammation of the joints may be chronic or acute.

**Baby Boomers:** Persons born in the United States between 1946 and 1964.

**Behavioral Risk Factor Surveillance System (BRFSS):** A national data collection system, using telephone interviews of the general public that was established in 1984.

**Body Mass Index:** Overweight and obesity are often defined in terms of Body Mass Index (BMI). BMI is calculated by using the height and weight of a person. The equation for BMI =  $703 \times [(weight \text{ in pounds}) + (height \text{ in inches} \times height \text{ in inches})]$ .

**Cardiovascular Disease:** An injury or disease pertaining to the heart and/or blood vessels anywhere in the body.

**Cancer:** A group of diseases characterized by uncontrolled growth and spread of abnormal cells into malignant tumors. Cancer can affect any part of the body.

**Centenarians:** Adults aged 100 years or older.

**Chronic Lower Respiratory Disease (CLRD):** This is also referred to as Chronic Obstructive Pulmonary Disease (COPD). A group of diseases involving the lungs, characterized by airflow obstruction that can be associated with breathing-related symptoms, such as a chronic cough, shortness of breath, excessive phlegm, and wheezing.

**Dementia:** A state of deterioration of personality and intellectual abilities, including memory, problem solving skills, language use, and thinking that interferes with daily functioning. Alzheimer's disease is a type of dementia.

**Dependency Ratio:** The proportion of children under age 18 years and adults over age 64 years compared to working-age adults 18-64 years.

**Diabetes:** A disease in which the body does not use or produce insulin correctly and therefore cannot regulate the level of blood sugar properly.

Frequency: The number of times something occurs in a population.

**Functional Independence: The ability of a person to carry out activities of daily living without assistance from other people.**

Functional Living Activities: Activities that include lifting, climbing stairs, walking, sustained standing, bending, reaching, and grasping.

Hearing Impairment: Deafness in one ear, deafness in both ears, or any other trouble hearing.

High Blood Pressure: A condition that occurs when the pressure inside the arteries are too high. For an adult, high blood pressure is a systolic blood pressure of 140 or higher, or a diastolic blood pressure of 90 or higher. Systolic is the first number and diastolic is the last number (i.e. 120/80).

High Cholesterol: A total blood cholesterol level of 200 milligrams per deciliter (mg/dl) and higher. Cholesterol is a fat found in the blood. A lipoprotein profile is a blood test, which shows the “good” cholesterol known as high-density cholesterol (HDL), “bad” cholesterol known as low-density cholesterol (LDL), and triglycerides.

Hypertension: See high blood pressure.

Immunization: Protection of a susceptible person from a communicable disease by administration of a vaccine.

Incidence: The number of new cases of a disease or condition that occur within a specified group of people during a defined period of time (usually a year).

Infectious Disease: Any disease caused by the growth of microorganisms in the body, such as bacteria or viruses, and may or may not be contagious.

Influenza: Also known as “the flu”. An acute, contagious respiratory infection that is caused by the influenza virus and lasts 7 to 10 days. Symptoms include fever, body aches, and cough. It may lead to pneumonia and/or death.

Institutionalized Population: People who live in institutions under formally authorized, supervised care or custody. Their activities are generally restricted to the institution, under the care or supervision of trained staff. Examples of institutions include prisons and nursing homes.

Instrumental Activities of Daily Living (IADL's): Activities required to maintain an independent household. These include shopping, managing money, using the telephone, performing household chores, preparing meals, doing light housework, and getting around in the community.

**Life Expectancy:** The number of additional years that a person can expect to live after a given age.

**Morbidity:** A condition or health related problem caused by illness or disease.

**Mortality Rates:** Also known as Death Rates. This is the number of deaths in a given population during a defined period of time.

**Nephritis:** A range of kidney diseases that can lead to death.

**Noninstitutionalized Population:** People who live independently in the community or in group quarters other than institutions, such as college dormitories, rooming houses, religious group homes, retirement homes, and halfway houses.

**Obese:** Body Mass Index (BMI) of 30 or greater.

**Osteopenia:** A reduction in bone mass to levels that are below normal, but not severe enough to be called osteoporosis.

**Osteoporosis:** A skeletal disorder in which the bones are weakened (e.g. softening or loss of bone mass) and the risk of fracture is increased due to severely decreased bone mass.

**Overweight:** Body Mass Index (BMI) between 25 and 29.9.

**Pneumonia:** An inflammation of the lungs caused primarily by bacteria, viruses, and chemical irritants.

**Risk Factors:** Lifestyle and genetic characteristics that increase the likelihood that a person will get a disease.

**Septicemia:** Overwhelming infection that may be due to a variety of causes.

**Sex Ratio:** The ratio of one sex to another usually defined as ratio of males to females.

**Stroke:** Rupture or obstruction of an artery in the brain caused by a blood clot.

**Unintentional Injury:** Injuries traditionally thought of as “accidents,” including motor vehicle injuries, sport injuries, work place injuries.

**Vision Impairment:** Blindness in one eye, blindness in both eyes, or any other trouble seeing.

## Appendix B: Arkansas Report Card on Healthy Aging

	The Arkansas Report Card On Healthy Aging	
Indicator	Current Data For Persons Age 65 or Older (Year)	Healthy People 2010 Target
<b>Healthy Behaviors</b>		
1. No Physical Activity During Leisure-Time In Past Month (%)	38.5 (2001)	50
2. Overweight (%)	38.4 (2001)	15
3. Eating 5+ Fruits/Veg. Daily (%)	33 (2000)	50
4. Current Smoker (%)	9.8 (2000)	12
<b>Preventive Care and Cancer Screening</b>		
5. Flu Vaccine in Past Year (%)	63.2 (2001)	90
6. Ever had Pneumonia Vaccine (%)	59.0 (2001)	90
7. Mammogram within Past 2 years (%)	82.2 (2001)	70
8. Ever had a Colorectal Screening (%)	54.2 (2001)	50
<b>Fall-related Deaths and injuries (per 100,000)</b>		
9. Hip Fractures, 65+ Females Males	1265.7 (2001) 1,625.3 754.4	20 percent decrease
10. Fall-related Deaths, 85+	48.2 (2001)	2.3

Adapted from The State of Aging and Health in America, 2004

Source: BRFSS, 2000 - 2001

## Appendix C: Poverty Guidelines and Federal Register References

Poverty guidelines since 1982 for the 48 contiguous states and the District of Columbia can be calculated by addition using the figures shown below. (This simple calculation procedure gives correct guideline figures for each year, but it is not identical to the procedure by which the poverty guidelines are calculated from the poverty thresholds each year; see an [example calculation](#).) Before 1982, the poverty guidelines were issued by the Office of Economic Opportunity/Community Services Administration.

<b>HHS Poverty Guidelines</b>				
<b>Year</b>	<b>First Person</b>	<b>Each Additional Person</b>	<b>(Four-Person Family)</b>	<b>Page with Complete Details</b>
2004	\$9,310	\$3,180	(\$18,850)	<a href="#">2004 Guidelines</a>
2003	8,980	3,140	( 18,400)	<a href="#">2003 Guidelines</a>
2002	8,860	3,080	( 18,100)	<a href="#">2002 Guidelines</a>
2001	8,590	3,020	( 17,650)	<a href="#">2001 Guidelines</a>
2000 <sup>1/</sup>	8,350	2,900	( 17,050)	<a href="#">2000 Guidelines</a>
1999 <sup>1/</sup>	8,240	2,820	( 16,700)	<a href="#">1999 Guidelines</a>
<p>1. Note that 1999 and 2000 poverty guidelines figures should <b>NOT</b> be used in connection with determining poverty population figures from 2000 Decennial Census data. Poverty population figures are calculated using the Census Bureau poverty thresholds, not the poverty guidelines.</p>				

Poverty guidelines for the years shown above can be found in the *Federal Register* as follows:

- 2004 — Vol. 69, No. 30, February 13, 2004, pp. 7336-7338
- 2003 — Vol. 68, No. 26, February 7, 2003, pp. 6456-6458
- 2002 — Vol. 67, No. 31, February 14, 2002, pp. 6931-6933
- 2001 — Vol. 66, No. 33, February 16, 2001, pp. 10695-10697
- 2000 — Vol. 65, No. 31, February 15, 2000, pp. 7555-7557

## **Abbreviations**

ADL's – Activities of Daily Living

BRFSS - Behavioral Risk Factor Surveillance System

CDC – Centers for Disease Control and Prevention

CLRD – Chronic Lower Respiratory Disease

COPD – Chronic Obstructive Pulmonary Disease

CVD – Cardiovascular Disease

IADL's – Instrumental Activities of Daily Living

ICD - International Classification of Diseases

MMWR – Morbidity and Mortality Weekly Report

NHANES – National Health and Nutritional Surveys

USPSTF – United States Preventive Services Task Force

WISQARS - Web-based Injury Statistics Query Reporting System

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