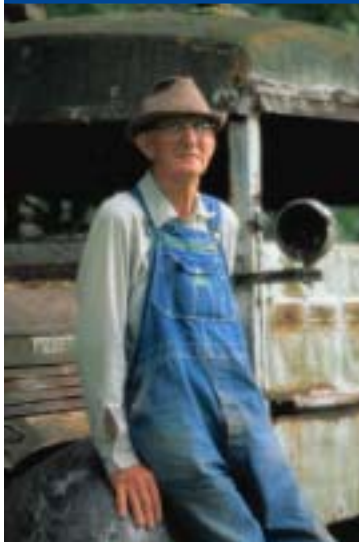




West Virginia Aging Health Status Report January 2004



WEST VIRGINIA AGING HEALTH STATUS REPORT

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Introduction

West Virginians are renowned for being independent, self-reliant, creative and proud. But as the population grows older, independence in a rural setting often makes it difficult for many older West Virginians to maintain good health and engage the health care system when needed.

A diverse group of advocates, professionals and older individuals met in January, 2003 to discuss the concept of “healthy aging.” They defined healthy aging in these terms:

- Staying well in mind, body and spirit
- Living healthy with chronic conditions
- Aging with maximum independence
- Accessing quality care

Leadership and resources are available from a number of agencies and organizations, chief among them the West Virginia Bureau of Senior Services, the West Virginia University Center on Aging, the West Virginia Bureau for Public Health, and a number of voluntary and non-profit organizations at the local and state level. These organizations and countless individuals, working together, have the potential to promote healthy aging and secure a brighter, healthier future for all who choose to live, work and retire in the Mountain State.

This report is an attempt to clearly depict the health status of older West Virginians. It describes the leading causes of death and disability among the older population, so that priorities might be more easily established for health promotion and disease prevention. It describes common individual risk factors that lead to premature disability and death, and summarizes additional socio-economic factors that play a role in securing good health.

This report is only a beginning. There are several key areas that are not explored, such as mental health and congregate care settings, just to name two. It is hoped that this report will stimulate further study, as well as encourage many efforts to promote healthy aging.



Demographic Data

Among all states, West Virginia has the nation’s oldest population, and it is getting older. West Virginians, like all Americans, are experiencing a steadily increasing life expectancy that will result in a significantly older population over the coming three decades. Table 1 presents 2000 census data for persons over age 65 (1).

Table 1: Population 65+, 2000 Census

West Virginia’s population over age 65 was 15.3% of the total population in 2000, compared to 12.4% for the United States. The state’s median age is the highest of all states at 38.9 years. Nearly one-third of West Virginia’s population is over the age of 50 (32.7%). Those over age 50 are projected to increase to 38% of the population by 2030. While the state’s total population is forecasted to decline by 4% by the year 2030, the number and percent of persons over age 75 is expected to increase dramatically, from 128,000 to 196,000, a 53% increase. The proportion of those over age 75 will increase from 7.1% to 11.3% of West Virginia’s total population. The proportion of people over age 65 varies by county, from a high of 19.9% in Summers County to a low of 10.7% in Monongalia County.

Among all residents over age 65, 11.9% were classified as living below the poverty level, while 21.4% of African-American elderly were so classified. The U.S. poverty rate among all persons age 65 or over was 9.9%.

The percent of elders in West Virginia in the labor force (8.7%) is substantially lower than the percent for the nation as a whole (13.3%). Accordingly, West Virginia’s elders are more likely to have fewer sources of income and lower employer-based health insurance coverage (2).

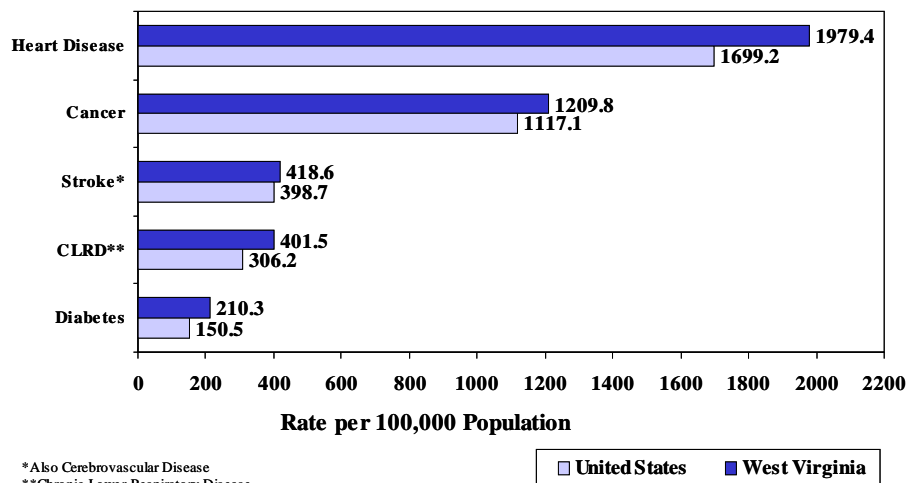
Nearly half (48.6%) of those over age 65 reported having at least one type of disability. Disabilities may include physical, mental, sensory, self-care disabilities, and difficulty getting outside the home.

	West Virginia	United States
Total Population	1,808,344	281,421,906
Age 65+ Population	276,895 (15.3%)	34,991,753 (12.4%)
Gender, Age 65+		
Male	112,538 (40.6%)	14,409,625 (41.2%)
Female	164,357 (59.4%)	20,582,128 (58.8%)
Race/Ethnicity, Age 65+		
Caucasian, non Hispanic	267,323 (96.5%)	30,405,538 (86.9%)
Hispanic	1,001 (0.4%)	1,733,591 (5.0%)
African American	7,144 (2.6%)	2,822,950 (8.1%)
American Indian	301 (0.1%)	138,439 (0.4%)
Asian	499 (0.2%)	800,795 (2.3%)
Other	1,628 (0.6%)	826,031 (2.4%)

Leading Causes of Death and Hospitalizations

Comparative death rates for the five leading causes of death in West Virginia for three years, 1999-2001, are shown in figure 1. Heart disease is the number one cause of death among people age 65 or over, both nationally and in West Virginia. West Virginia's heart disease death rate per 100,000 population, age 65 or over, is 16% higher than the national rate. Cancer is the second leading cause of death overall for people age 65 and over, but is the leading cause of death for persons from age 50 to age 74. The cancer death rate for West Virginia was 10.9% higher than the national rate for 1999 (3).

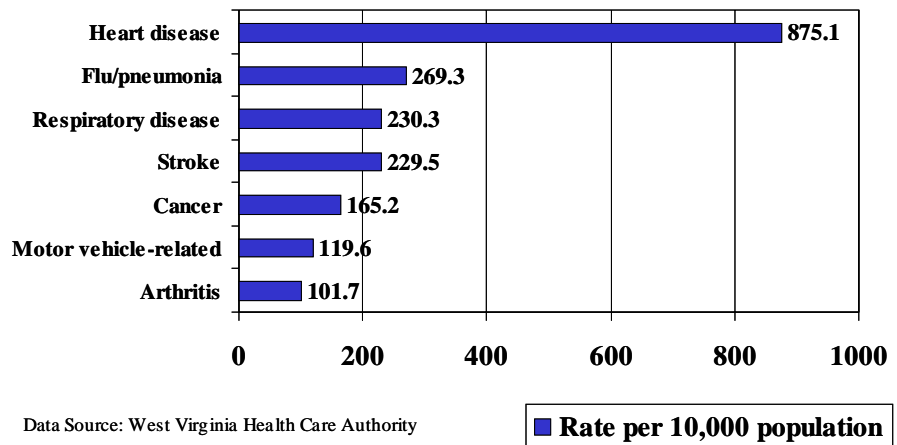
Figure 1
Five Leading Causes of Death, Age 65+
1999-2001 WV and US Annual Averages



*Also Cerebrovascular Disease
**Chronic Lower Respiratory Disease
Data Source: Vital statistics reports, West Virginia Health Statistics Center

Cerebrovascular disease (stroke), chronic lower respiratory disease, and diabetes are the next three leading causes of death of older persons in West Virginia. The diabetes and respiratory disease death rates are substantially higher than the national rates, by 40% and 29%, respectively. Influenza/pneumonia, and Alzheimer's disease are the next leading causes of death, with the majority of those deaths occurring in the age 85+ population.

Figure 2
West Virginia Leading Causes of Hospitalizations, Age 65+, 1999-2001



The leading causes of hospitalization for West Virginians age 65 or over are shown in figure 2, using hospitalization rates per 10,000 population. Detailed hospitalization rates by gender and age for a number of discharge diagnoses are shown in the appendix.

Cardiovascular Disease

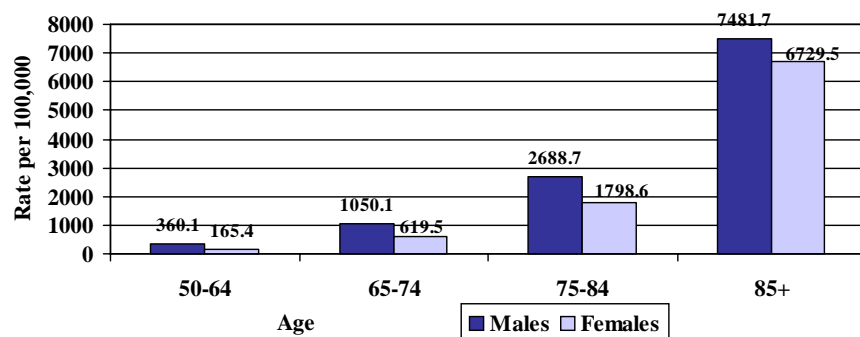
Cardiovascular disease (CVD) has been the number one killer in the US and West Virginia since 1940. Heart disease and stroke, the two main categories of CVD, accounted for 39.5% of all deaths in West Virginia in 1999. Although some groups are disproportionately affected, CVD is the leading cause of death regardless of gender, race, ethnicity, education or income. A review of the 1998 multiple-cause-of-death data set available from the National Center for Health Statistics revealed that cardiovascular disease was listed on two-thirds (67.2%) of all West Virginia death certificates as either the underlying cause or contributing cause of death (4).

Heart disease is responsible for more hospitalizations of older West Virginians than for any other diagnosis. The annual rate of heart disease hospitalizations for those age 65 or over was 875 per 10,000 population for the period 1999-2001. Males are hospitalized for heart disease at a higher rate than females except after age 85, where the rates for males and females are virtually identical at 1372 and 1350 per 10,000 respectively (5).

Certain risk factors increase a person's chances of developing and possibly dying from cardiovascular disease. Non-modifiable risk factors such as age, gender, race, and heredity play a role, but modifiable risk factors are within the control of the individual. The major independent risk factors for CVD include serum cholesterol, physical inactivity, high blood pressure, cigarette smoking, obesity, diabetes and environmental tobacco smoke (4).

Figure 3

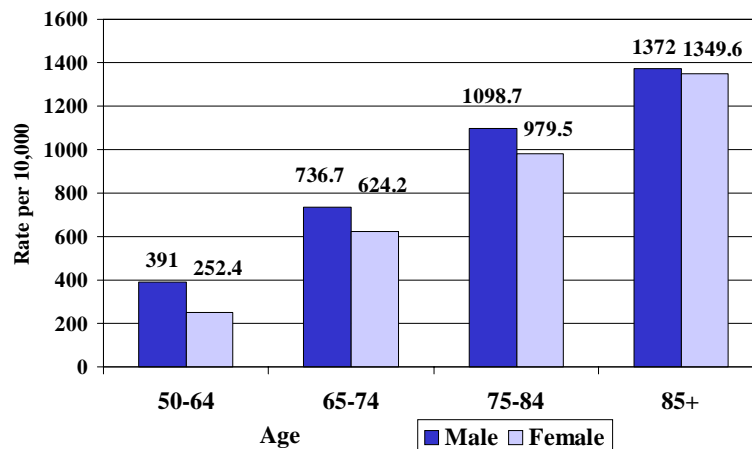
West Virginia Heart Disease Death Rates Age 50+, 1999-2001



Data Source: West Virginia Health Statistics Center

Figure 4

West Virginia Heart Disease Hospitalizations 1999-2001

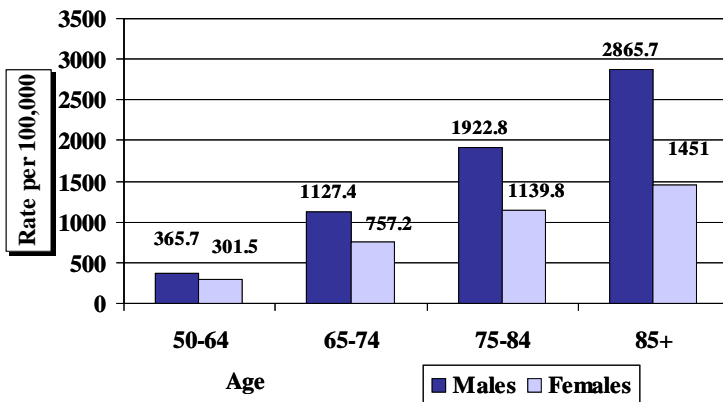


Data Source: West Virginia Health Care Authority

Cancer

Cancer is second only to heart disease as a leading cause of death in West Virginia and the US (3). The incidence of cancer, like heart disease and other chronic conditions, increases with age.

Figure 5
West Virginia Cancer Death Rates Age 50+, 1999-2001



Data Source: West Virginia Health Statistics Center

Among males in West Virginia, during 1996-2000, the leading cause of cancer-related mortality by far was cancer of the lung and bronchus, causing well over three times more cancer deaths than for any other site (6). Cancer of the prostate ranked a distant second in cancer mortality for men, and cancer of the colon and rectum ranked third. For males ages 50-64, cancer outpaced heart disease as the leading cause of death (3) (6).

Similarly, among West Virginia women during 1996-2000, cancer of the lung was the leading cause of cancer-related mortality, almost twice that of any other site. For women age 65 and over, cancer of the colon and rectum was the second leading cause of cancer death closely followed by breast cancer (6).

Hospitalization for cancer generally increases with advancing age, a reflection of increasing cancer incidence. Data from the WV Cancer Registry on cancer incidence and age describe the *stages of cancer at initial diagnosis*, which has implications for effective treatment. Some cancers, such as prostate and breast cancer, are more likely to be diagnosed while the cancer is at local stage or in situ and therefore easier to treat. However, the early detection of lung cancer is hampered by the lack of an effective screening protocol and only about 20% of cases are detected at local stage. Similarly, for colorectal cancer, less than half of cases are found in situ or at local stage. The proportion of cancers diagnosed at an early stage, before the cancer has spread, is generally lower among persons 85 years of age and older (6).

According to the American Cancer Society, tobacco use accounts for 87% of lung cancers (7). Diets high in fat and low in fiber are associated with increased risk of cancer of the colon and rectum, uterus, prostate, and breast. Other risk factors for cancer include heavy alcohol use, occupational and environmental exposures, and family and personal health histories (6).

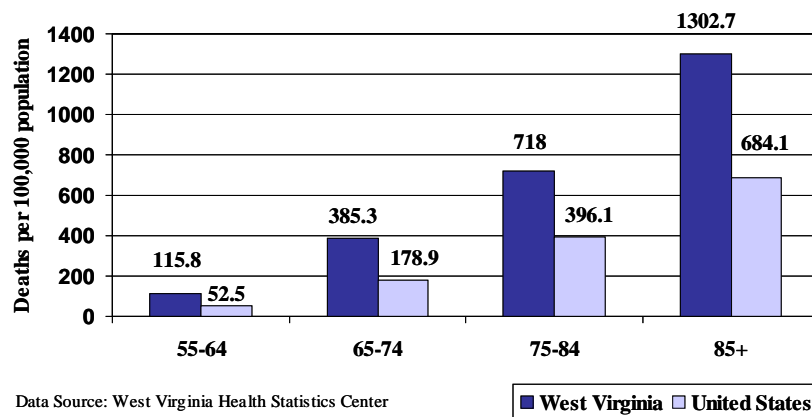
Chronic Lower Respiratory Disease

Chronic Lower Respiratory Disease (CLRD) consists of three major diseases: Chronic bronchitis, emphysema, and asthma (8). CLRD is the fourth leading cause of death in the US but third leading cause of death in West Virginia (all ages). Only two other states, Nevada and Wyoming, share this distinction (8).

While mortality rates are declining for the top two leading causes of death (heart disease and cancer), the death rate for CLRD is increasing in the state and nation. In 2000, West Virginia was the leading state in the age-adjusted CLRD mortality rate, at 63.2 deaths per 100,000 population compared to the national rate of 44.3. CLRD is especially significant as a contributing cause of death in the older age groups, being nearly twice as prevalent in West Virginia as in the nation (8).

Figure 6

Rates of CLRD as a Contributing Cause of Death by Age



Chronic bronchitis and emphysema are often grouped together as *chronic obstructive pulmonary disease* (COPD). According to Dr. Stephen Rennard, a pulmonary specialist and participant in the Global Initiative for Obstructive Lung Disease, “Typically, it takes 30 to 40 years for COPD to develop fully enough to cause symptoms. Before that, it is present but silent” (13).

The rates of hospitalization due to chronic bronchitis were markedly higher for West Virginians than their national counterparts for both sexes and among all age groups (8). The overall rate of 54.2 discharges per 10,000 population was over three times the US rate of 17.6 (8). While historically COPD was more predominant among males compared to females, this changed in the mid 1990s. Older women now experience more severe COPD-related disease and hospitalizations, and while death rates have stabilized or decreased among men, they have increased among women (9). Several studies have suggested these trends are the result of increased smoking among women and differences in female lung anatomy (10, 11).

COPD is the third leading reason for at-home care, following congestive heart failure and stroke, and ranks second to coronary artery disease as a Social Security compensated disability (12). A 2001 survey conducted by the American Lung Association revealed that over half of COPD sufferers said their illness limited their ability to work, and almost half had difficulty doing light housework or washing and dressing. Nearly one-third became short of breath while talking, and 28% had difficulty breathing even when sitting down or lying still (14).

Tobacco smoking is the most important risk factor for chronic bronchitis and emphysema, accounting for about 80% of cases. Other factors contributing to CLRD are occupational exposures such as dusts, fumes and molds; second hand tobacco smoke; and other forms of environmental air pollution (8).

Risk Factors

In considering leading chronic health conditions and mortality, it is important to keep in mind the role that risk factors play in health. The Behavioral Risk Factor Surveillance Survey (BRFSS), established by the Centers for Disease Control (CDC) is a national telephone survey that polls individuals about specific high-risk behaviors, and is a useful tool in assessing the general health of the population, within certain limits.

Through the use of random dialing, the survey provides a representative cross-section of the state's population. Breaking out an age group within the total population surveyed, however, reduces the sample size and reliability of the data, so it must be viewed with caution. Additionally, individuals not having a telephone within their household are excluded from participation, as are institutionalized adults. Therefore, care must be used in interpreting BRFSS data beyond the context of the surveyed population (15).

Being overweight or obese, poor dietary habits, little or no physical activity, and tobacco use are all associated with an increase in health problems. As shown in table 2, according to the 2001 BRFSS, 65.5% of the surveyed older adults age 65+ in West Virginia are classified as either overweight or obese by national health standards, while only 26.7% reported attempting to lose weight in 2000. Two-thirds of respondents reported that they did not consume the recommended five servings of fruits and vegetables a day, and 37% reported being physically inactive (15).

Table 2: Risk Factors Among Respondents Age 65 and Older: BRFSS, 2000-02

	West Virginia	United States	
Weight Group			
Not Overweight or obese	34.5%	40.1%	2001 Data
Overweight	47.4%	40.6%	
Obese	18.1%	19.8%	
At risk for weight-related health problems	65.5%	60.4%	
Weight Change			
Currently trying to lose weight	26.7%	30.6%	2000 Data
Currently trying to maintain weight	41.9%	58.4%	
Daily Servings of Fruits and Vegetables			
Less than once a day or never	4.1%	1.9%	2002 Data
1 to less than 3 times per day	30.7%	24.9%	
3 to less than 5 times per day	37.5%	41.6%	
5 or more times per day	27.7%	32.2%	
Activity/exercise			
Participated in any physical activity	62.8%	65.5%	2001 Data
Meets recommended* activity level	39.0%	Data not available	
Active but not at recommended level	23.8%		
Inactive	37.2%		
*Moderate activity 30 minutes a day, 5 days or more per week, or vigorous activity, 20 minutes a day, 3 days or more per week.			
Tobacco Use			
Current Smoker	12.3%	10.0%	2002 Data
Spit tobacco user (males)	9.0%	No Data	
Attempted quitting previous 12 months	21.7%	42.0%	

U.S. figures are the median values among all the state values.

Of those surveyed in 2002, 12.3% of older respondents reported smoking, and 9.0% of older males reported using spit tobacco. In 2002 21.7% of older West Virginia smokers reported attempting to quit smoking in the past 12 months, which is about half of the median for all states (42%) for smokers over age 65 (16).

It is highly likely that today's elevated rates of respiratory disease among older West Virginia women is in part the product of smoking behavior in young women that began 30 to 50 years ago (8). Based on the 2001 BRFSS, more than one-third of women ages 18-44 in West Virginia smoked cigarettes. BRFSS data also suggest that women have greater difficulty than men quitting smoking once they've started.

Periodontal disease and/or tooth loss have also been demonstrated to be significantly related to elevated incidence of cardiovascular disease (17). Poor oral health is related to the lack of routine dental care and also to the use of tobacco, including spit tobacco, which further damages teeth and gums. The state's prevalence of tooth loss among adults was the highest in the nation in 1997 (4). This factor may contribute to the elevated number of cardiovascular hospitalizations observed for men age 50-64.

Diabetes is an especially troublesome condition in that it contributes to and complicates other chronic conditions including cardiovascular disease (18). The risk of heart disease is two to four times greater among persons with diabetes, as is the risk of stroke. Sixty to 65% of those with diabetes are affected by hypertension. Diabetes is the leading cause of blindness in adults, is the leading cause of end-stage renal disease, is responsible for more than half of lower limb amputations, is a major factor in the development of nervous system problems, and increases the likelihood of periodontal disease, pneumonia and influenza (18). According to the CDC, approximately one-third of the people who have diabetes are unaware of it.

Obesity and Quality of Life

Obesity among adults in West Virginia increased from 15% in 1990 to almost 23% in 2000, a 53% increase (15). Obesity is a risk factor contributing to heart disease, diabetes, stroke and cancer, which are among the leading causes of death and disability in West Virginia and the nation. Because of the societal and economic costs associated with obesity, it is now recognized as a major public health epidemic (22).

Research published in 2003 by the West Virginia University Center on Aging examined the relationship between obesity among adults age 65 or older in Appalachia and health-related quality of life. By examining data from the 2000 Behavior Risk Factor Surveillance System from all the designated Appalachian counties, the researchers found a significant relationship between two health-related quality of life indicators and obesity as defined according to national guidelines. Specifically, 39.2% of the obese respondents reported fair or poor health compared to 29.4% of the nonobese respondents. In addition, obese respondents were more likely to report more days of poor physical health than the nonobese respondents (7.8 versus 5.3 days) (21).

Disabilities

Nearly half (48.6%) of West Virginians age 65 or over, and 41.9% of U.S. elderly, reported having one or more disabilities, according to the 2000 census. Twelve point four percent of older West Virginians reported having limitations in self-care activities compared to 9.5% for the U.S. (self-care includes bathing, dressing and eating). There is a significantly higher prevalence of self-care limitations for older women compared to men (14.0% versus 9.8% respectively) (2). The West Virginia numbers are about 30% higher than comparable national rates.

In the 1999 West Virginia BRFSS, a series of questions were included for survey respondents over age 65. These questions pertained to activities of daily living including bathing, dressing/grooming, eating/drinking, mobility, toileting, walking, grasping, writing, hearing, and vision. The results are summarized in table 3. It should be stressed that the BRFSS is a random telephone survey to households with a telephone, therefore the data reflect older persons responding to the survey who have telephones and are non-institutionalized.

Table 3: Daily Activities: 1999 BRFSS

Because of a health or physical problem, do you have any difficulty doing these activities without help?	Some	Unable
Fully bathing or showering	8.5%	2.7%
Dressing and grooming yourself	4.9%	1.3%
Eating food and drinking liquids	4.2%	0.1%
Moving in and out of bed or a chair	9.9%	0.8%
Using the toilet	4.4%	0.8%
Voluntarily controlling bladder or bowels	16.5%	0.5%
Walking on a level surface inside the home	9.3%	0.9%
Getting to places outside the home not within walking distance	11.8%	5.5%
Writing or handling and grasping small objects	17.0%	1.2%
Do you wear a hearing aid every day?	One Ear 5.5%	Both ears 4.4%
Can you hear most of the things people say? (with a hearing aid if that is how you hear best)	Yes 91.6%	No 8.4%
Do you have vision in both eyes or only one eye? (With glasses or contact lenses if you use them)	Both 94.2%	One (None) 5.6% (0.2%)
Can you see well enough to read newspaper print? (with glasses or contacts if you use them)	Yes 93.6%	No 6.4%

Preventive Care

In the 2002 BRFSS survey, 58.7% of WV seniors age 65+ said their health was good, very good or excellent, compared to 70.0% nationally (16).

The use of preventive care services provides an effective means for maintaining or improving individual health status, and is especially important for the aging population. Periodic screening for older adults is recommended for a number of health conditions. Figure 8 illustrates the use of such services among those age 65 years and older adults within the past year, as reported on the BRFSS. The percent for pneumococcal vaccine, sigmoidoscopy/colonoscopy, mammogram, clinical breast exam and pap smear are reported for individuals receiving these services at any point in their life.

Figure 7
Self-Reported Health Status 65+

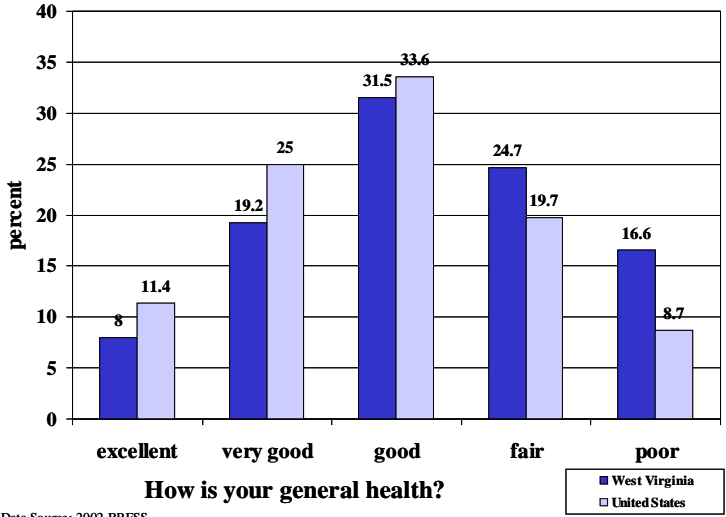
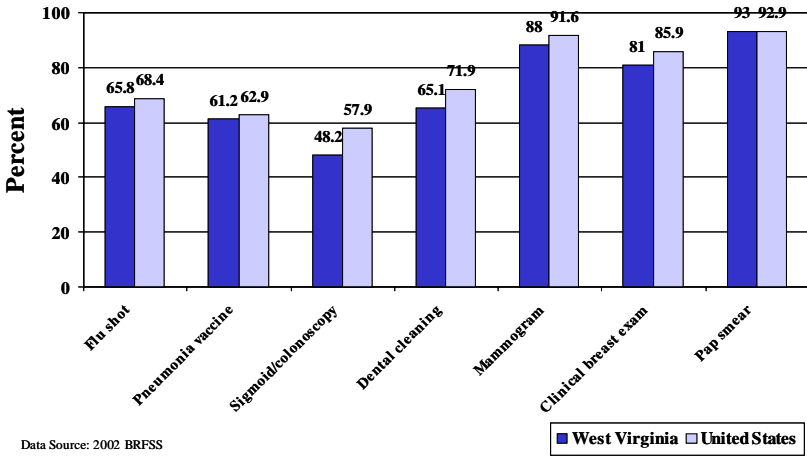


Figure 8
Use of Preventive Services, 65+, BRFSS 2002



Barriers and Challenges

Rural populations are faced with certain behaviors, attitudes and access challenges that contribute to elevated risks of chronic illness and premature death. Among these are a decreased tendency towards lifestyle change such as quitting smoking, altering high fat diets, and increasing physical activity, accompanied by a limited perception of significant health risks associated with unhealthy lifestyles (19). Other factors include long distances to services, limited screening opportunities, and limited access to services such as cardiac rehabilitation services.

Access to available and affordable healthcare has long been recognized as a problem for rural elderly West Virginians. In a series of focus groups with rural elderly in the spring of 2001, conducted by the West Virginia University Center on Aging, five broad categories of barriers to healthcare emerged: Financial constraints, transportation difficulties, limited healthcare supply, lack of quality healthcare, and social isolation (20).

Financial constraints included issues related to healthcare expense, the high cost of prescription medications, inadequate healthcare coverage, and income ineligibility for Medicaid. In a separate discussion focused on the high cost of prescription drugs, seven coping mechanisms were identified: Reduce dosage or do without, limit other expenses, rely on family assistance, supplement with alternative medicine, shop around for lowest prices, use the Veterans Administration, and use assistance programs.

Transportation barriers included traveling out-of-town for specialty care, poorly marked roads, limited medical transportation programs, limited public transportation, and inhospitable terrain/weather.

Limited health care supply translated into difficulty recruiting and keeping physicians, the need for more specialists, limited choice of physicians, and aging of local doctors. Another related problem was the limited supply of long-term care options, such as assisted living places or other less intensive alternatives to a nursing home. Lack of quality care was described as difficulty getting accurate diagnoses, physicians' lack of interest in patients, lack of trust in healthcare providers, difficulty scheduling appointments and/or long waiting times for appointments.

The final category of barriers described by focus group participants, **social isolation**, stems from a strong sense of self-reliance that contributes to a lack of services use, and lack of awareness of available services. Participants tended to describe others' situations such as an unwillingness to ask for help, or shyness or inability to ask for help, being unaware of available help, or having inaccurate information about availability of and eligibility for services (20).

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Appendix

Current and Projected West Virginia Population Years 2000 and 2030

2000 Census

2030 Projection

Age Group	Number	Percent	Number	Percent
0-49	1,217,396	67.3	1,076,325	62.0
50 and Older	590,948	32.7	660,772	38.0
50-64	314,053	17.4	310,694	17.9
65-74	148,463	8.2	154,151	8.9
75-84	96,653	5.3	136,470	7.9
85 and Older	31,779	1.8	59,457	3.4
Total	1,808,344	100.0	1,737,097	100.0

**West Virginians Over Age 65
Living Below the Poverty Level
(2000 Census)**

All Races	11.9%
White	11.6%
Black	21.4%
Males	8.3%
Females	14.4%

**West Virginians Over Age 65 With at
Least One Type of Disability
(2000 Census)**

	Number	Percent
Males	52,983	47.1
Females	76,187	46.4
Both	129,170	46.6

**West Virginia Racial Breakdown by Gender, Ages 65+
(2000 Census)**

Race	Male	Female	Both
All Races	112,538	164,357	276,895
White	108,990	158,333	267,323
Black	2,519	4,625	7,144
American Indian, Eskimo, etc.	137	164	301
Asian	220	279	499
Hawaiian Pacific Islander	17	23	40
Some Other Race	34	44	78
Two or more Races	621	889	1,510
Hispanic (May be of any race)	427	574	1,001

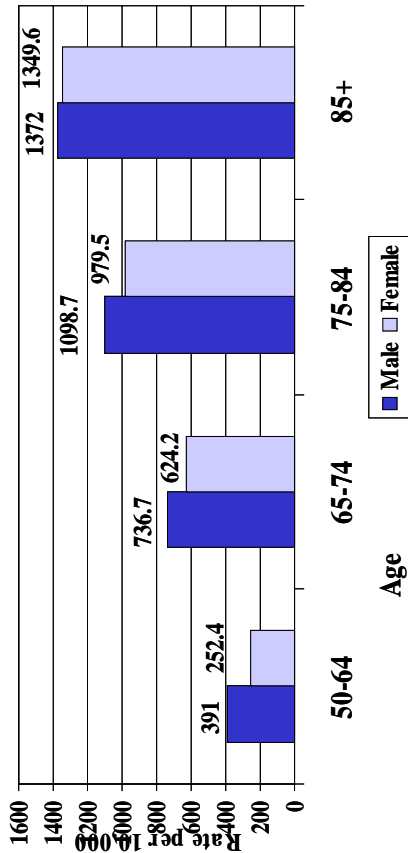
**Numbers and Rates of Deaths due to Selected Causes by Age, Race, and Sex
West Virginia Residents Ages 50 Years and Over, 1999 - 2001**

Cause	Age	White		Nonwhite		White		Nonwhite		White		Nonwhite		White		Nonwhite		Total Deaths	Total Rate
		Male Deaths	Male Rate	Female Deaths	Female Rate	Male Deaths	Male Rate	Female Deaths	Female Rate	Male Deaths	Male Rate	Female Deaths	Female Rate	Male Deaths	Male Rate	Female Deaths	Female Rate		
Alzheimers Disease	50-64	7	1.6	3	0.7	0	0.0	0	0.0	0	1.1	0.0	0.0	1.5	0.6	10	1.1		
	65-74	31	16.0	44	18.5	1	16.6	3	34.1	17.4	17.4	27.0	16.1	19.1	79	17.7			
	75-84	132	122.0	257	149.6	1	28.0	5	78.0	138.9	138.9	60.1	119.0	147.0	395	136.2			
	85+	136	532.0	458	695.5	8	755.4	15	524.1	649.8	649.8	586.6	540.8	688.4	617	647.2			
	Total	306	39.6	762	81.4	10	36.1	23	64.4	62.5	62.5	52.1	39.5	80.8	1,101	62.1			
Cancer	50-64	1657	371.4	1396	302.6	37	217.3	48	272.5	336.4	336.4	245.4	365.7	301.5	3,138	333.1			
	65-74	2189	1,133.0	1803	759.6	57	947.6	61	693.5	927.1	927.1	796.7	1,127.4	757.2	4,110	922.8			
	75-84	2083	1,925.2	1974	1,149.1	66	1,848.7	57	888.7	1,449.1	1,449.1	1,232.0	1,922.8	1,139.8	4,180	1,441.6			
	85+	738	2,886.6	955	1,450.3	25	2,360.7	42	1,467.5	1,852.0	1,852.0	1,708.7	2,865.7	1,451.0	1,760	1,846.1			
	Total	6667	862.3	6128	654.5	185	668.5	208	582.8	748.5	748.5	620.3	855.6	651.8	13,188	743.9			
Cerebrovascular Disease	50-64	146	32.7	118	25.6	10	58.7	5	28.4	29.1	29.1	43.3	33.7	25.7	279	29.6			
	65-74	284	147.0	307	129.3	5	83.1	7	79.6	137.3	137.3	81.0	145.1	127.6	603	135.4			
	75-84	547	505.6	814	473.9	19	532.2	26	405.4	486.1	486.1	450.7	506.4	471.4	1,406	484.9			
	85+	398	1,556.8	1018	1,545.9	9	849.9	43	1,502.4	1,549.0	1,549.0	1,326.2	1,528.6	1,544.1	1,468	1,539.8			
	Total	1375	177.8	2257	241.0	43	155.4	81	227.0	212.5	212.5	195.7	177.1	240.5	3,756	211.9			
Chronic Lower Respiratory Disease	50-64	205	45.9	228	49.4	3	17.6	5	28.4	47.7	47.7	23.1	44.9	48.6	441	46.8			
	65-74	522	270.2	492	207.3	7	116.4	6	68.2	235.5	235.5	87.8	265.5	202.3	1,027	230.6			
	75-84	709	655.3	729	424.4	16	448.2	10	155.9	513.6	513.6	260.4	648.7	414.7	1,464	504.9			
	85+	379	1,482.4	444	674.3	12	1,133.1	9	314.5	900.3	900.3	535.6	1,468.5	659.3	844	885.3			
	Total	1815	234.8	1893	202.2	38	137.3	30	84.1	216.9	216.9	107.3	231.4	197.8	3,776	213.0			
Diabetes	50-64	220	49.3	157	34.0	11	64.6	10	56.8	41.5	41.5	60.6	49.9	34.9	398	42.2			
	65-74	265	137.2	302	127.2	13	216.1	12	136.4	131.7	131.7	168.8	139.5	127.6	592	132.9			
	75-84	279	257.9	404	235.2	11	308.1	21	327.4	244.0	244.0	320.5	259.5	238.5	715	246.6			
	85+	111	434.2	293	445.0	4	377.7	32	1,118.1	441.9	441.9	918.1	431.9	473.0	440	461.5			
	Total	875	113.2	1156	123.5	39	140.9	75	210.2	118.8	118.8	179.9	114.1	126.6	2,145	121.0			
Heart Disease	50-64	1614	361.7	766	166.0	54	317.1	26	147.6	262.3	262.3	230.9	360.1	165.4	2,460	261.1			
	65-74	2035	1,053.3	1472	620.1	57	947.6	53	602.5	814.5	814.5	742.7	1,050.1	619.5	3,617	812.1			
	75-84	2937	2,714.5	3097	1,802.9	68	1,904.8	108	1,683.8	2,155.2	2,155.2	1,762.8	2,688.7	1,798.6	6,210	2,141.7			
	85+	1937	7,576.5	4499	6,832.2	55	5,193.6	125	4,367.6	7,040.3	7,040.3	4,590.7	7,481.7	6,729.5	6,616	6,939.6			
	Total	8523	1,102.4	9834	1,050.3	234	845.6	312	874.2	1,073.8	1,073.8	861.7	1,093.5	1,043.8	18,903	1,066.3			

Health Statistics Center

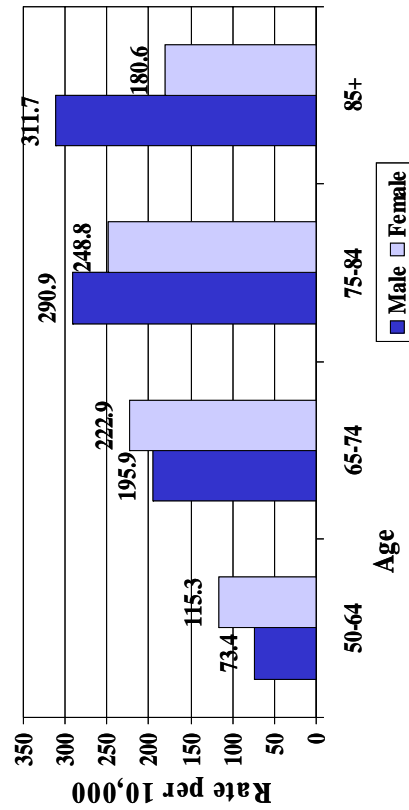
July 31, 2003

West Virginia Heart Disease Hospitalizations 1999-2001



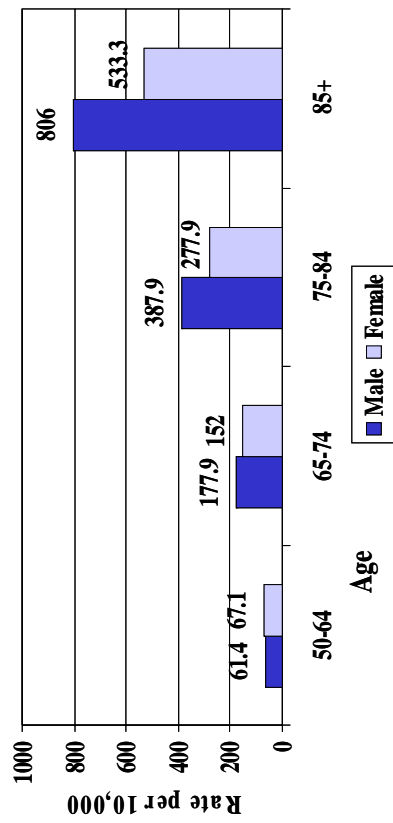
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West Virginia Respiratory Hospitalizations 1999-2001



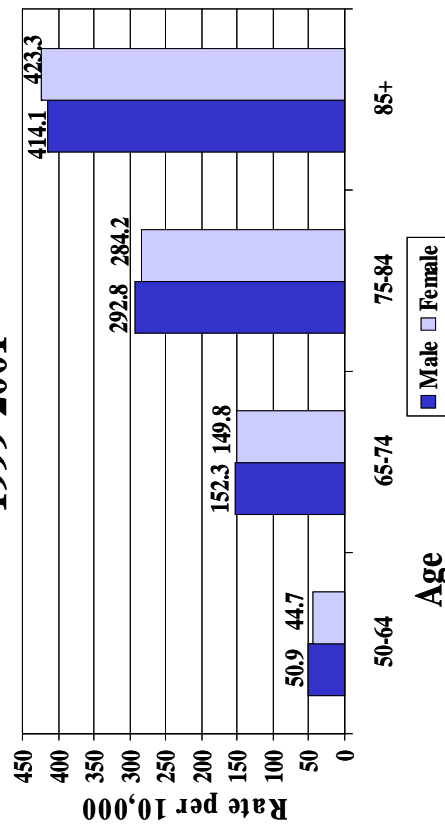
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West Virginia Pneumonia and Influenza Hospitalizations 1999-2001



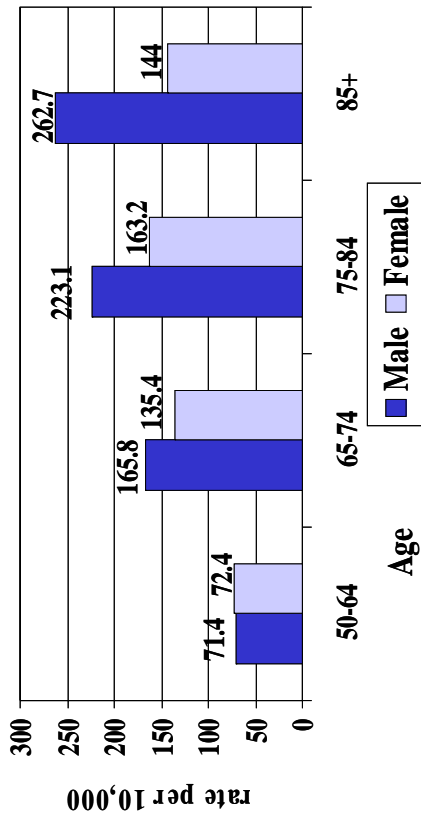
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West Virginia Stroke Hospitalizations 1999-2001



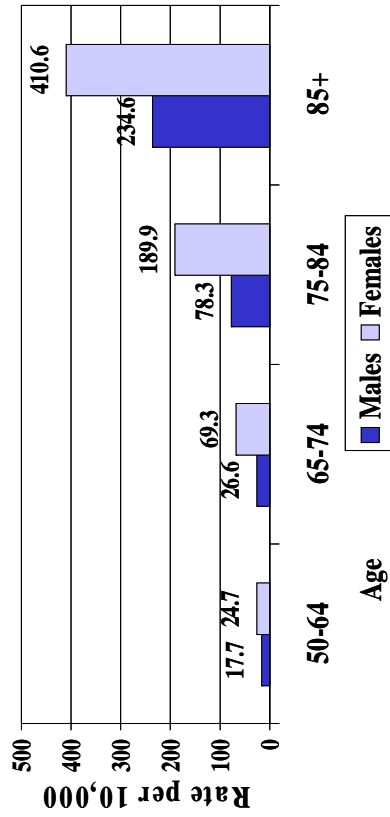
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West Virginia Cancer Hospitalizations 1999-2001



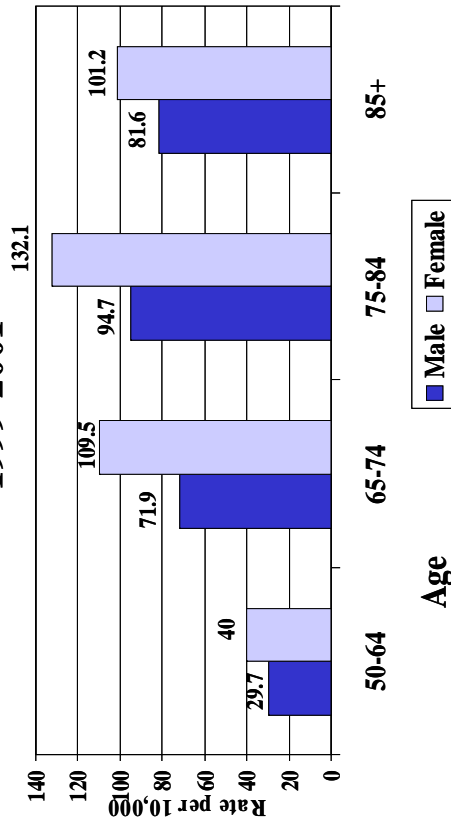
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West Virginia Motor Vehicle Hospitalizations 1999-2001



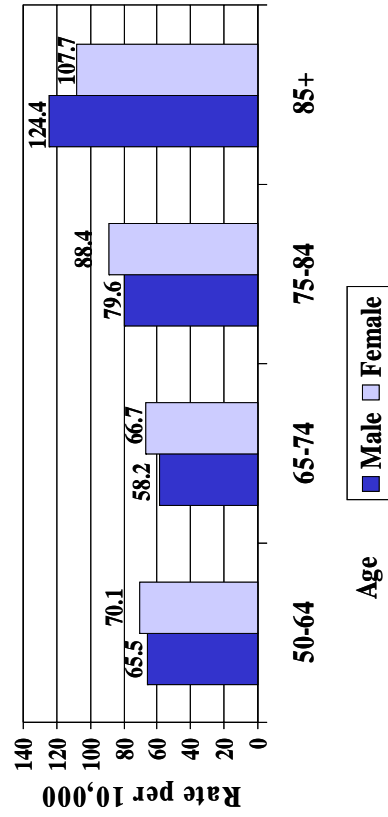
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West Virginia Arthritis Hospitalizations 1999-2001



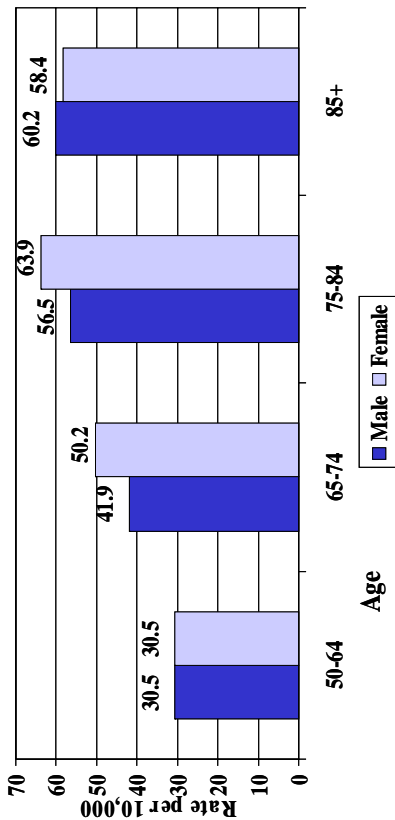
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West Virginia Mental Health Hospitalizations 1999-2001



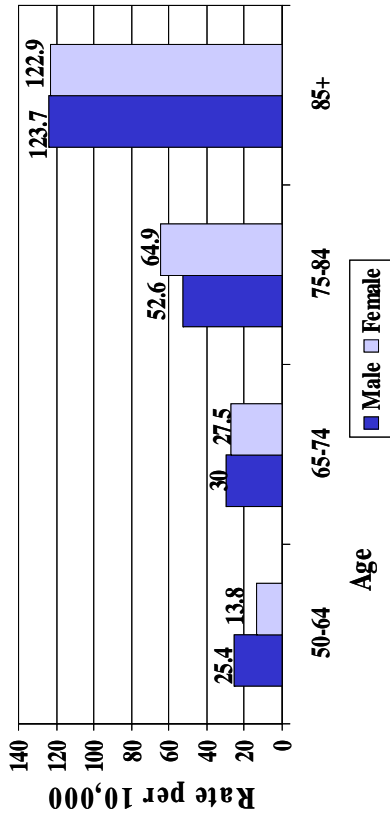
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West Virginia Diabetes Hospitalizations 1999-2001



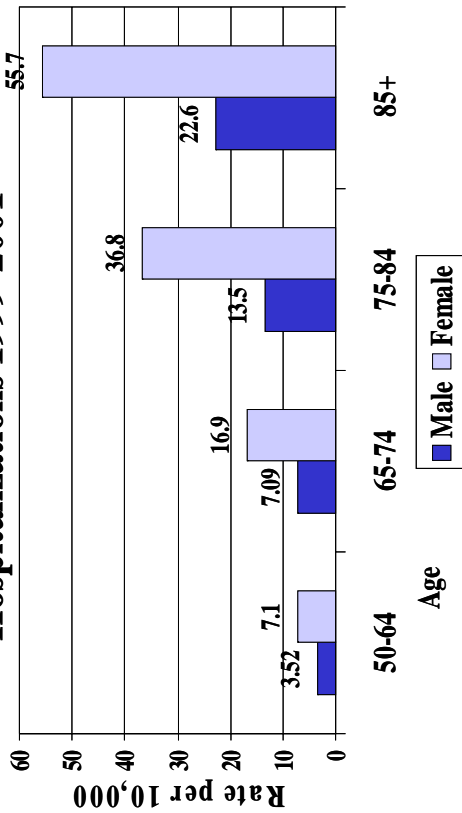
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West Virginia Other Unintentional Injury Hospitalizations 1999-2001



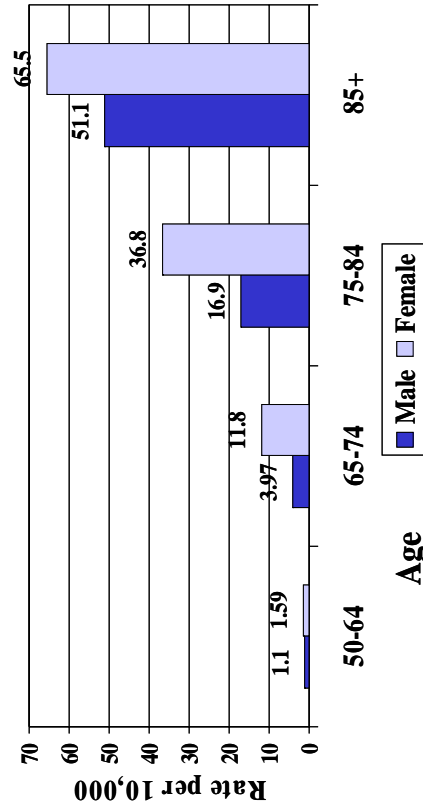
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West Virginia Osteoporosis Hospitalizations 1999-2001



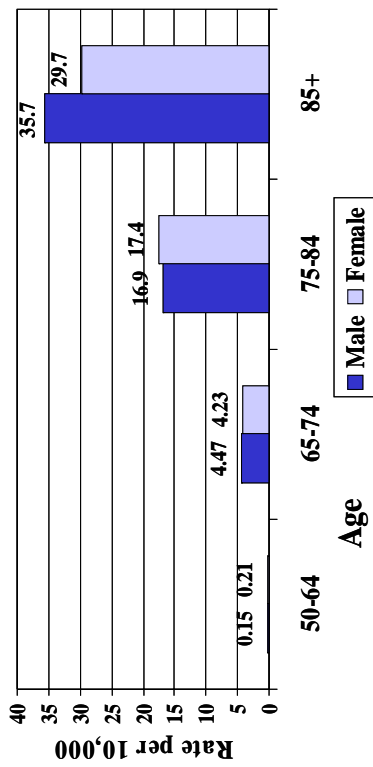
Data Source: West Virginia Health Care Authority

West Virginia Hip Fracture Hospitalizations 1999-2001



Data Source: West Virginia Health Care Authority

West Virginia Alzheimers' Hospitalizations 1999-2001



Data Source: West Virginia Health Care Authority