

FACT SHEET: HYPERTENSION IN ARKANSAS

January 1, 2005

Arkansas Minority Health Commission



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High blood pressure (hypertension) is associated with 70% of all new stroke cases, and is one of several major causes of heart disease, peripheral vascular disease, and end stage kidney disease. A large number of adults in Arkansas have high blood pressure.

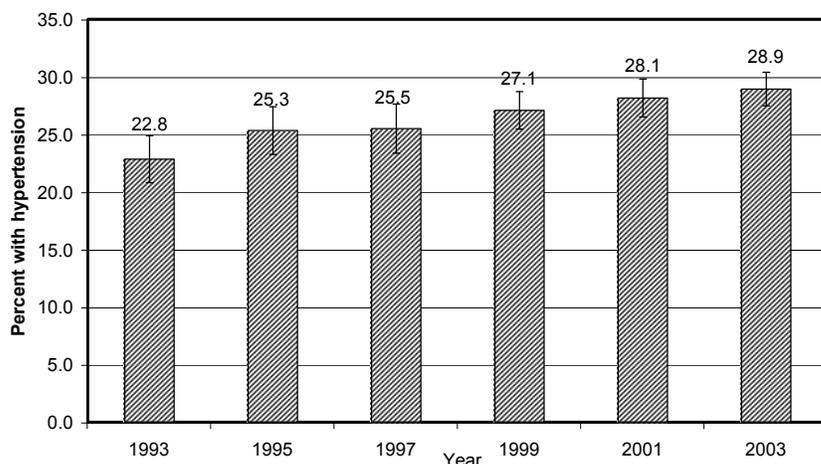
The heart disease and stroke death rates in Arkansas are among the highest in the United States. In 2001, the most recent year for which data are available, crude death rates from cardiovascular diseases and stroke were 305.9 per 100,000 and 83.6 per 100,000 respectively in Arkansas, compared to 246.8 per 100,000 and 67.4 per 100,000 for the US as a whole (Arkansas Department of Health website). Even after adjusting for age differences using age-adjusted mortality rates, in 2001 the Arkansas mortality rates from heart disease and stroke were 12% and 31% higher than the national average.

Over the past 11 years in Arkansas, an increasing percent of adults report that they have been told that they have high blood pressure. African Americans are known to have higher rates of high blood pressure and high blood pressure-related complications such as stroke than Caucasians. Thus, for health resource planning, it is particularly important to examine the burden of high blood pressure within major racial/ethnic groups in Arkansas.

This Fact Sheet presents data from the Behavioral Risk Factor Surveillance System (BRFSS) on the percent of adults aged 18 years or older who self-report ever having been told that they had high blood pressure by a doctor, nurse, or other health professional. Trends in the percent reporting high blood pressure are presented by calendar year. In 1999, among persons who reported ever having been told that they had high blood pressure, 80% reported having been told this at least twice.

Graphs that show different age and race/ethnicity categories use averages of the aggregated data from 1993-2003. Because of the small number of black and Hispanic respondents to the BRFSS in each individual calendar year, the aggregated data are needed to present reliable estimates by age and race. However, because the percent with high blood pressure in the population has increased over time (Figure 1), the graphs with aggregated data probably underestimate the current prevalence of diagnosed high blood pressure in each racial-ethnic group.

Percent of adults with self-reported hypertension in Arkansas, by year 1993-2003, age adjusted, BRFSS



Error bars show 95% confidence limits for the estimated percent with hypertension. Data are age-adjusted to 2000 US Census population

FIGURE 1:

Over the 11 year period, prevalence of self-reported high blood pressure (hypertension) has increased from 22.8% to 28.9% in adults in Arkansas. This represents a 27% increase in prevalence of high blood pressure. This increase is likely to reflect true disease rather than increased awareness, since a similar finding has been seen nationally in studies that look at both diagnosed and undiagnosed high blood pressure.

Age adjusted data show a similar pattern to the crude unadjusted data presented in the ADH document titled 'Burden of Cardiovascular Disease, 2004'. Age adjusted data allow the viewer to directly compare rates in different calendar years, even if the population is aging.

Percent of adults with self-reported hypertension, by year and age group, Arkansas, 1993-2003, BRFSS

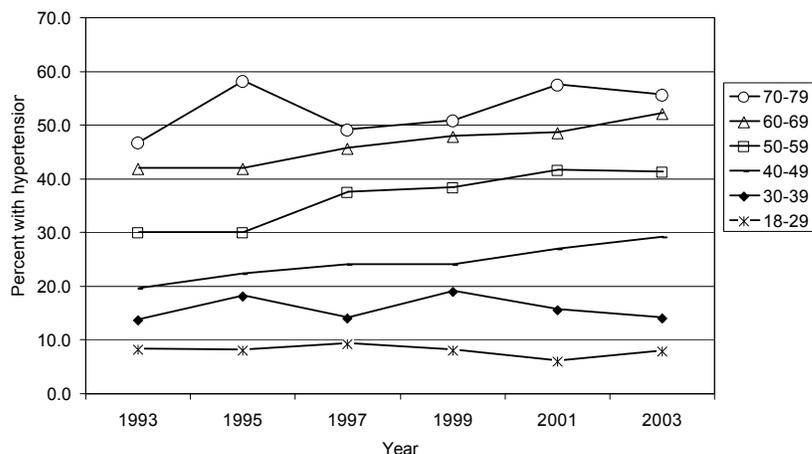


FIGURE 2:

In each calendar year, increasing age is associated with a higher percent of people who have high blood pressure (hypertension), from age 18 years to age 79 years.

In 2003, more than 50% of adults aged 60 years or older reported being told that they had high blood pressure.

Between 1993 and 2003, the percent reporting high blood pressure increased for all groups aged 40 years or older.

More people have high blood pressure than these numbers represent, since people with undiagnosed high blood pressure are not included.

Percent of adults with self-reported hypertension, by age group and race/ethnicity, BRFSS, 1993-2003

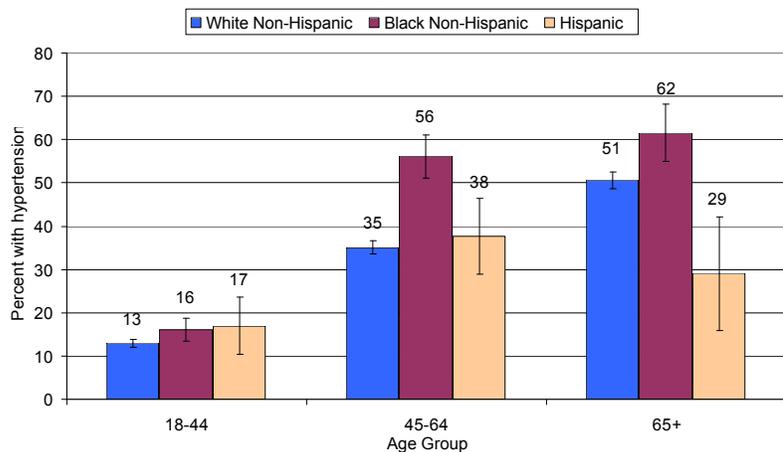


FIGURE 3:

In each age group, a higher percent of blacks have high blood pressure (hypertension) than do whites.

The percent of adults with self reported high blood pressure in the age group 18-44 years is similar in black and Hispanic adults.

The percent with high blood pressure increases with increasing age, in all groups except Hispanics aged 65 and older.

Caveat: Because of small sample sizes in each survey year, we averaged data over 11 years to obtain stable estimates of the percent with high blood pressure in each race and age subgroup. Because the percent of people with high blood pressure has risen over this 11 year time period, this figure underestimates the percent who would report high blood pressure, if asked in 2003.

Error bars show 95% confidence limits for the percent

Estimated number of adults with self-reported hypertension in Arkansas, by age group and race/ethnicity, 2003 US Census and BRFSS.

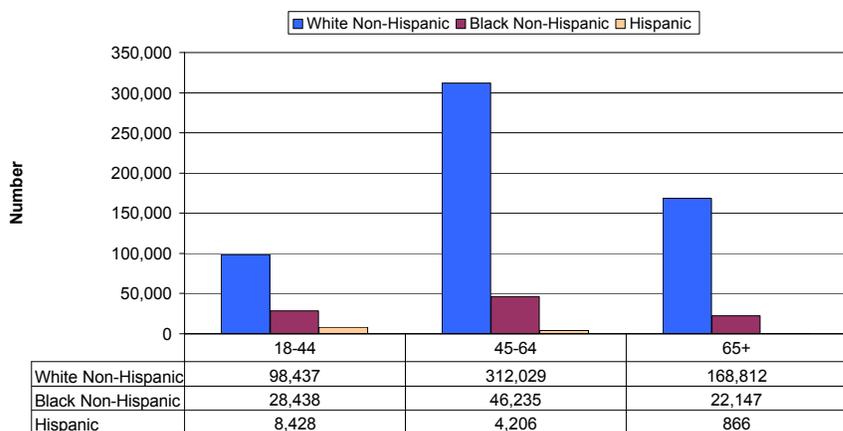


FIGURE 4:

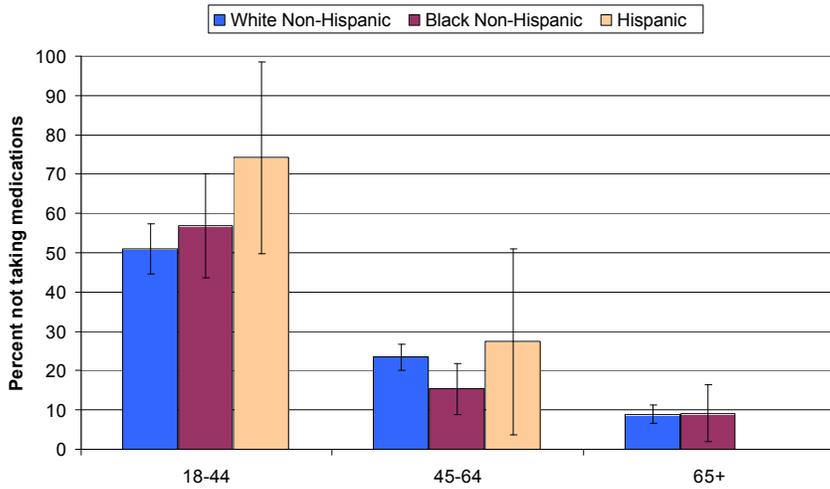
Although blacks are more likely to develop high blood pressure (hypertension) than whites, Whites represent the greatest number of people with high blood pressure in the state. This is because in 2003, 77.6% of the population in Arkansas was white, 16.1% were black and 3.7% were Hispanic.

The estimated number of adults with self-reported high blood pressure in 2003, by racial/ethnic group, is 579,278 whites, 96,820 blacks, and 13,500 Hispanics. These estimates can be used to gauge the public health burden of diagnosed high blood pressure in Arkansas.

For all racial/ethnic groups, a substantial number of the persons with high blood pressure are in the age group 18-44 years.

These numbers were generated by multiplying the 11-year average age and race specific percents presented in the previous figure by the number of people in each age and race specific subgroup in Arkansas in 2003. These numbers do not include non-Hispanic populations of Asians, Native Americans, Pacific Islanders, and others.

Percent of adults with self-reported hypertension who do NOT take medications for hypertension, by age and race, BRFSS 2001-2003



Error bars show 95% confidence limits for the percent

Estimated number of Arkansas adults with self-reported hypertension, who do NOT take blood pressure medications, by age group & race/ethnicity, 2003 US Census & BRFSS 2001-2003

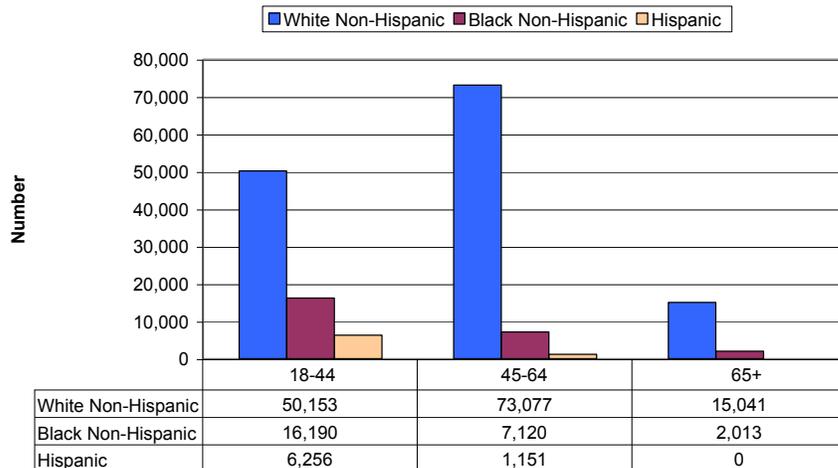


FIGURE 5:

This graph shows the percent of adults who report being told that they have high blood pressure (hypertension), but who report NOT currently taking medications for high blood pressure.

Many persons with high blood pressure are not taking medication, especially in the age groups 18-44 years and 45-64 years. Untreated high blood pressure undoubtedly contributes to the higher death rates from stroke and cardiovascular disease seen in Arkansas.

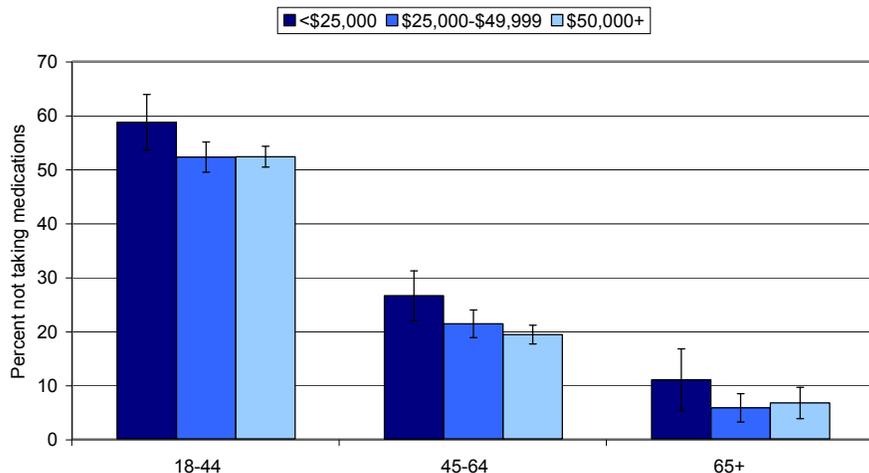
Based on NHANES 1999-2000 data, no more than 10% of persons who report being told at least twice that they have high blood pressure will have normal measured blood pressure without being on medications (Fields et al). The difference between the percent not taking medications for high blood pressure, and the percent expected to have good control of their blood pressure without taking medications, shows the high unmet need.

This graph does not include persons who are unaware that they have high blood pressure. Therefore, the total percent of people with untreated high blood pressure is higher than this figure indicates.

FIGURE 6:

This graph shows the estimated number of adults in Arkansas in 2003 with self-reported high blood pressure (hypertension) who are NOT taking medications for high blood pressure, by age group.

Percent of Arkansas adults with self-reported hypertension who do NOT take anti-hypertensive medications, by age group and household income level, BRFSS 2001 and 2003



Error bars show 95% confidence limits for the percent

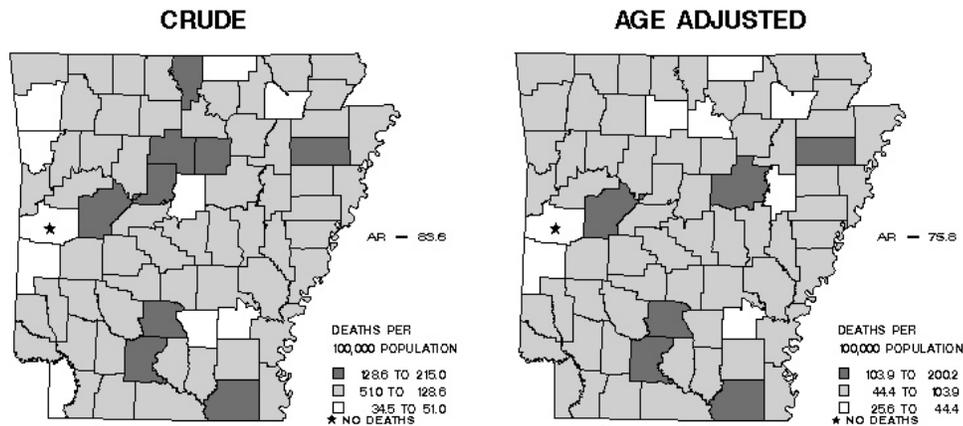
FIGURE 7:

With increasing age, fewer adults with self-reported high blood pressure (hypertension) report not taking anti-hypertensive medications. More than 50% of adults with self-reported high blood pressure aged 18-44 report not taking anti-hypertensive medications.

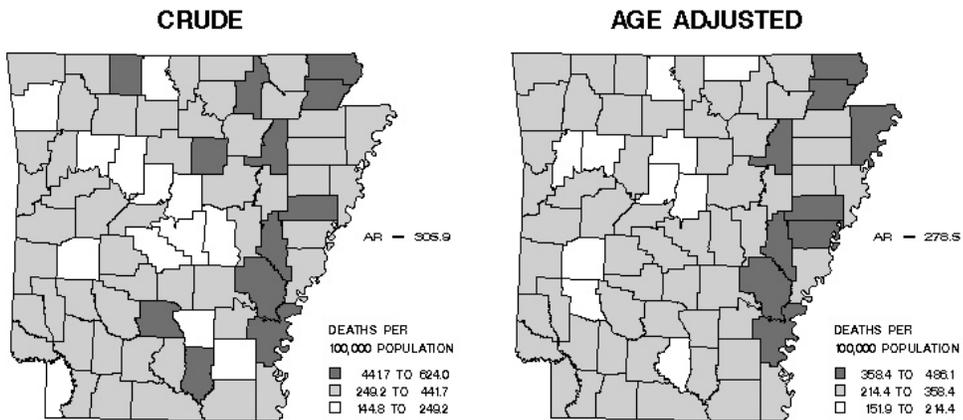
The percent of adults with self-reported high blood pressure who do not take anti-hypertensive medications does not vary markedly with increasing income. In each income group, a higher proportion of adults aged 18-44 report not taking medications than do adults aged 45-64 years or 65+ years.

In 2003, 36% of Arkansas adults had income less than \$25,000, 34% had income \$25,000-49,999, and 30% had income of \$50,000 or more.

2001 ARKANSAS RESIDENT MORTALITY CEREBROVASCULAR DISEASES (ICD10 I60–I69)



2001 ARKANSAS RESIDENT MORTALITY DISEASES OF HEART (ICD10 I00–I09,I11,I13,I20–I51)



References

1. Arkansas Department of Health, accessed 12/01/2004. <http://www.healthyarkansas.com/stats/mort2001/MORT503A.HTM>
2. Fields LE, Burt VL, Cutler JA, Hughes J, Roccella EJ, Sorlie P. The burden of adult hypertension in the United States 1999 to 2000: a rising tide. *Hypertension*. 2004 Oct;44(4):398-404. Epub 2004 Aug 23

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