# Racial/Ethnic Health Disparities in Ohio: Hypertension 

Kenneth J. Steinman, PhD, MPH; Kelly Stamper Balistreri, PhD

The Ohio State University, Bowling Green State University

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## INTRODUCTION

Hypertension (high blood pressure) is a common risk factor for heart disease and stroke, two leading causes of death in Ohio. One in three adults in Ohio have high blood pressure, yet only $65 \%$ of Ohioans with hypertension have it under control.' Recent estimates suggest that among adults ages 45 to $79,30 \%$ of male deaths and $38 \%$ of female deaths due to cardiovascular diseases could be prevented with the elimination of high blood pressure. ${ }^{2}$

Hypertension costs the nation about \$5I. 2 billion per year, with Medicare serving as the most important source of payment for treatment of people with high blood pressure, especially for those who also had diabetes. ${ }^{3}$

In Ohio and across the US, hypertension is more common among African-Americans than among Whites or Hispanics. ${ }^{4}$ For example, the prevalence of hypertension among African American adults in Ohio (38.9\%) and nationwide ( $40.3 \%$ ) is significantly higher than comparable rates for non-Hispanic Whites ( $30.5 \%$ and $27.8 \%$ ) and Hispanics ( $26.3 \%$ and $27.8 \%$ ). ${ }^{5}$ This brief describes hypertension among Ohio adults, ages 19 and older, with special attention to differences by race/ethnicity.

## METHODS

OMAS is a telephone survey that samples both landline and cell phones in Ohio. The 2017 version is the seventh iteration. Researchers completed 39,7II interviews with adults during late $20 \mathrm{I7}$. These consisted of 11,558 interviews with adults in lowerincome households (annual income $<=138 \%$ of the Federal Poverty Level), of whom 74\% were White, 21\% were African/American, 4\% were Hispanic and $1 \%$ consisted of adults from other racial/ethnic groups (e.g., Asian; American Indian). In addition, the researchers completed 28,153 interviews with adults from higher-income households, of whom $87 \%$ were White, $9 \%$ were African-American, 2\% were Hispanic and $\mathrm{I} \%$ were adults from another racial ethnic group. When some participants were missing data on race/ethnicity and/or income, values were imputed using appropriate statistical procedures.

Respondents were classified as having hypertension if they responded "yes" to the question: "Has a doctor, nurse or other health professional ever told you that you had high blood pressure or hypertension?" Respondents who answered "borderline," were classified as not having hypertension.

## KEY FINDINGS

- Among non-elderly adults in Ohio, African-Americans were more likely than non-Hispanic Whites to have hypertension ( $35.8 \%$ vs $27.1 \%$ ): a finding that persisted for males and females and for most ages and income levels.
- Nearly half (49.4\%) of working-age Whites with hypertension had employer-sponsored insurance and 24.3\% had Medicaid; whereas among working-age African-Americans with hypertension, 29.2\% had employer-sponsored insurance and $46.8 \%$ had Medicaid.

Figure 1. Hypertension Prevalence by Race/Ethnicity and Age: Ohio, 2017


The findings reported in this brief are weighted to be representative of all non-institutionalized adults or children in Ohio. Adjusted analyses examined racial/ethnic disparities while controlling for grouplevel differences age, sex, education, income, marital status, and county type. Because these models resembled findings from unadjusted analyses (which are easier to interpret), this brief presents unadjusted results.

## RESULTS

Analyses of the 2017 Ohio Medicaid Assessment Survey (OMAS) estimate that $35.7 \%$ of non-elderly (19-64) adults in Ohio - over 1.9 million people have hypertension, including 27.1\% of Whites (I.5 million), 35.8\% of African-Americans $(309,000)$, $24.5 \%$ of Hispanics $(58,000)$ and I4.7\% of Asian/ Pacific Islanders $(24,000)$. These differences were statistically significant. If hypertension occurred in African-Americans at the same rate as it occurred in Whites, there would be 74,000 fewer cases in Ohio.

Racial/Ethnic disparities persisted even after controlling for demographic factors like age, sex and income, with African-Americans consistently having a greater prevalence of hypertension compared to Whites or Hispanics. Among non-elderly adults from lower-income households (annual income $<=138 \%$ of the Federal Poverty Level), for example, hypertension was more common among AfricanAmericans (38.6\%) than among Whites (32.7\%) or Hispanics (26.7\%). For non-elderly males (of all income levels), hypertension was more common among African-Americans (34.7\%) than among Whites (30.2\%) or Hispanics (26.8\%) and for nonelderly females the prevalence for each group was $36.9 \%, 24.9 \%$ and $22.7 \%$ respectively. Figure I illustrates how prevalence rates were higher for African-Americans across different age groups.

Among Ohioans (ages 19 to 64) with hypertension, insurance coverage and type varied significantly by race/ethnicity (Figure 2). For example, among Whites in this age group with hypertension, nearly half (49.4\%) have employer-sponsored insurance and

Figure 2: Percent Distribution of Types of Insurance among Ohio Adults with Hypertension, Ages 19-64 Years, by Race/Ethnicity

24.3\% have Medicaid. In comparison, 29.2\% of African-Americans with hypertension had employersponsored insurance and $46.8 \%$ have Medicaid. For Hispanics, one noteworthy difference is that $16.2 \%$ of Hispanic 19-64 year olds with hypertension are uninsured, compared to figures of $5.9 \%$ for Whites and $7.8 \%$ for African-Americans.

Hypertension was associated with a range of worrisome health outcomes. Compared to adults who did not have the condition, those with hypertension were significantly more likely to report being obese ( $49.3 \%$ vs. $27.8 \%$ ), having functional mental health distress ( $8.8 \%$ vs. $4.9 \%$ ), unmet health needs ( $25.4 \%$ vs. 20.0\%), and "fair" or "poor" self-rated health status ( $34.2 \%$ vs. I $3.4 \%$ ). In addition, adults with hypertension were also significantly more likely to have had 3 or more emergency department visits ( $8.7 \%$ vs. $5.0 \%$ ) during the past year.

## POLICY CONSIDERATIONS

Disparities in hypertension between African-
American adults and other racial/ethnic groups are pervasive across many demographic characteristics. Efforts to reduce these disparities should entail broad-based collaboration among organizations that serve males and females of different ages and incomes.

Because Medicaid insures nearly half of AfricanAmericans with hypertension, the Ohio Department of Medicaid will have an important role for efforts to address disparities.

Hypertension is a common, yet serious condition associated with distress, disease and utilization of costly health care services. Monitoring this outcome is a useful indicator for assessing population health.

## REFERENCES

I. Ohio Department of Health, 2014. Ohio's Plan to Prevent and Reduce Chronic Disease: 2014-2018. Columbus, OH: Ohio Department of Health.
2. Patel, S., Winkel, M., et al., 20I5. Cardiovascular Mortality Associated with 5 Leading Risk Factors: National and State Preventable Fractions Estimated from Survey Data. Annals of Intemal Medicine 163(4): 245-253.
3. Wang, G, Zhou, X., et al. 2017. Annual Total Medical Expenditures Associated with Hypertension by Diabetes Status in U.S. Adults. American Joumal of Preventive Medicine 53(6):SI82-SI89.
4. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence \& Trends Data [online]. 2015. [accessed September 2I 2018]. URL: https://www.cdc.gov/brfss/ brfssprevalence/ .
5. Fryar CD, Ostchega Y, Hales CM, Zhang G, KruszonMoran D. Hypertension prevalence and control among adults: United States, 2015-2016. NCHS data brief, no 289. Hyattsville, MD: National Center for Health Statistics. 2017.

For More Information about OMAS and the findings in this policy brief, please visit the OMAS website at the Ohio Colleges of Medicine Government Resource Center www.grc.osu.edu/OMAS.

