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TURNING SCIENCE INTO ACTION

National Trends in Racial and Ethnic Disparities in Antihypertensive Medication Use and Blood Pressure Control Among Adults With Hypertension, 2011–2018

The following is a synopsis of "National Trends in Racial and Ethnic Disparities in Antihypertensive Medication Use and Blood Pressure Control Among Adults With Hypertension, 2011–2018" published in November 2021 in *Hypertension* on behalf of the American Heart Association, Inc.

What is already known on this topic?

Although continuous efforts to improve hypertension control in the United States have been employed, the national blood pressure (BP) control rate (BP<140/90 mm Hg) has declined from 54% in 2013-2014 to 44% in 2017-2018 among those with hypertension.[1] This decline in BP control has been most prevalent among Black and Hispanic persons.[1] To address racial and ethnic disparities in cardiovascular outcomes, it is necessary to identify the factors that impact BP control.

Lack of awareness and underuse of guideline-recommended medications have been identified as essential individual-level factors contributing to poor BP control.[2] Research shows that Black individuals were more aware of their hypertension and were more likely to be on treatment compared with their White counterparts.[3] Additionally, Hispanic individuals were more likely to remain untreated or undertreated for hypertension.[4]

What is added by this article?

There is limited research regarding racial and ethnic differences in the intensity of antihypertensive treatment (number and type of medication). Current literature also lacks an analysis specific to Asian-American persons, a segment of the population that is increasing in size and has high hypertension prevalence. Additionally, there is no systematic evaluation on how much progress the US has made in eliminating disparities in awareness and treatment of hypertension in recent years and whether these differences in awareness and treatment explain the decline in hypertension control. This article helps fill the gap in our knowledge of racial and ethnic disparities in hypertension awareness and how racial and ethnic differences vary by income, intensity of treatment, and hypertension control from 2011-2018.

Cross-sectional in-home interviews of 8095 hypertensive participants from the National

Health and Nutrition Examination Survey (NHANES 2011-2018) revealed the age-adjusted hypertension awareness rate declined from 84.0% (79.5–86.2) in 2011-2012 to 77.5% (74.0–80.5) in 2017-2018 in the overall population. From 2011-2012 through 2017-2018, the decline in hypertension awareness was consistent for Black (86.4% [83.9-88.9] to 82.6% [78.5-86.7]), Hispanic (82.2% [78.1-86.2] to 73.6% [68.5-78.7]), and White participants (82.9% [78.2-87.6] to 77.4% [72.4-82.3]).

Despite the initial hypertension awareness rates being lower for Asian participants compared to other groups, the awareness rates did not change for Asian participants (72.6% [67.1-78.1] to 78.0% [70.4-85.7]).

Black participants also reported similar awareness rates compared to White participants, whereas Asian and Hispanic participants had significantly lower rates of awareness (0.69 [0.52–0.85] and 0.74 [0.59–0.89]). The standardized physical exam revealed that, despite being similarly aware of hypertension and receiving more intensive therapy, Black participants were less likely to achieve BP control compared with White participants. Asian and Hispanic participants were also less likely to attain the BP control goals compared with White participants.

From 2011-2012 through 2017-2018, the age-adjusted treatment rate among hypertensive individuals declined from 77.3% (73.4–81.1) to 71.4% (69.0–73.8) in the overall population. Among participants who reported antihypertensive medication use, the utilization of angiotensin-converting enzyme (ACE) inhibitors, thiazide, and thiazide-like diuretics declined during the study period while the utilization of angiotensin II receptor blockers (ARB) increased. There were no significant changes in utilization trends for β-blockers, calcium channel blockers, and other antihypertensive medications.

Additionally, the age-adjusted BP control rate among hypertensive individuals declined from 51.9% (47.1-56.7) in 2011-2012 to 43.1% (39.7-46.5) in 2017-2018 in the overall population Various limitations such as the change in hypertension control targets over the study period, decline in NHANES response rates over time, and possible recall bias in self-reported medication use were cited by researchers as barriers the study faced in addressing racial differences in hypertension control.

What are the implications of these findings?

These findings highlight the need for interventions to improve awareness and treatment of hypertension among Asian and Hispanic individuals. Additionally, more investigation into the environmental, social, and structural factors that may contribute to gaps in hypertension control among Black individuals needs to be conducted. Public health strategies to improve hypertension control should be tailored to the needs of communities and actively engage individuals.

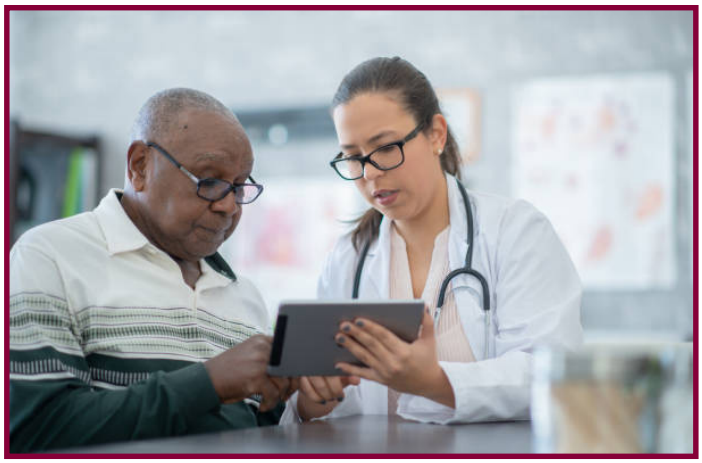
This approach may include leveraging community resources to deliver care, including stress reduction and improved sleep quality as BP control interventions, and expanding access to care and health resources.

In this study, Asian participants were the only racial and ethnic subgroup with

documented improvement in awareness, treatment, and control during 2015-2016; all other subgroups had declines in all three hypertension metrics during this time period. This finding highlights the importance of exploring why Asian individuals experienced improvements in hypertension management despite the reversal in progress nationally. Identifying such protective factors may lead to alternative intervention approaches that could result in significantly improved health outcomes for other racial and ethnic groups.

To address poorer hypertension control among Hispanic and Asian persons associated with lower awareness and treatment, we must employ strategies to increase awareness and use of guideline-recommended antihypertensive medications. Approaches that can promote awareness and guideline adherence include patient and provider education, home BP monitoring, behavioral counseling, and increased access to preventative.

These strategies may be key to addressing differences in hypertension and BP control trends among racial and ethnic groups that are not explained by differences in awareness and treatment alone. By employing strategies that reduce barriers to engagement with health systems, promote positive heath behaviors, and address misconceptions about hypertension, we can support communities in increasing hypertension control and reaching BP control targets.



Resources:

Centers for Disease Control and Prevention High Blood Pressure

Mayo Clinic 10 ways to control high blood pressure without medication

American Heart Association Changes You Can Make to Manage High Blood Pressure

References

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Citation

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