

## Prevalence, Management, and Control of Hypertension among U.S. Workers: Does Occupation Matter?

The following is a synopsis of “Prevalence, Management, and Control of Hypertension among U.S. Workers: Does Occupation Matter?” published online ahead of print in the *Journal of Occupational and Environmental Medicine*.



### What is already known on this topic?

Nearly one-third of all American adults have high blood pressure, also known as hypertension. High blood pressure is a major risk factor for heart disease and stroke, which are the first and fourth leading causes of death, respectively, in the United States. Less than half of adults with hypertension have the condition under control.

Although previous studies have found associations between hypertension and occupation, no studies are currently available on the association of occupation with awareness, treatment, and control of hypertension among U.S. workers.

### What is added by this document?

This study assessed the association of occupation with hypertension prevalence, awareness, treatment, and control among a nationally representative sample of 6,928 adult U.S. workers using data from the 1999–2004 National Health and Nutrition Examination Survey (NHANES).

The analysis showed that about one in five workers in the NHANES survey had hypertension. Only 70% of workers with hypertension were aware of their condition, and of these, 91% were treated with antihypertensive medications. However, only 65% of workers getting treatment had their hypertension under control, even though 80% of the workers had health insurance. Prevalence, awareness, treatment, and control of hypertension varied among the 13 occupational groups in the study, with hypertension prevalence ranging from 10.5% to 28%, awareness from 51% to 93%, treatment from 79% to 96%, and control from 48% to 85%, depending on the occupational group.

In particular, protective service workers (e.g., police officers and firefighters) had the second highest prevalence of hypertension (26%) among occupational groups, yet they had some of the lowest rates of awareness (51%), treatment (79%), and control (48%). After adjusting for other factors affecting hypertension (e.g., smoking status), protective service workers were less likely to have controlled hypertension or to be treated for hypertension compared with executive, administrative, and managerial workers.

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## What are the applications for these findings?

The authors suggest the need for worksite hypertension programs, especially for protective services employees for whom job stress and chronic noise exposure are possible contributors to their higher prevalence of hypertension. If implemented, programs should include the provision of protective devices to reduce chronic noise exposure and counseling to reduce job stress. Programs also should include education about the importance of regular medical checkups and adequate hypertension management, treatment, and control.

## What are the implications for public health practice?

The prevention, diagnosis, and control of hypertension among workers in the United States remains a challenging public health issue, regardless of health insurance status.

Several other factors may affect hypertension control, including clinicians' inadequate knowledge of national hypertension treatment guidelines, insufficient physician-patient communication, and patients' lack of adherence to lifestyle modifications and medications.

Health care models and worksite programs that address these factors may improve hypertension control among employees with hypertension. Given the importance of healthy lifestyle in the prevention and treatment of hypertension, employers may see a reduction in health care costs associated with hypertension and other chronic diseases through implementation of evidence-based strategies, such as worksite nutrition and physical activity programs, modification of the work environment (e.g., access to healthy food choices in cafeterias and exercise facilities), and installation of self-testing stations in the workplace. Protective service workers may benefit the most from hypertension management guidelines that consider workers' cardiovascular risk profiles and work environment.

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## Resources

Centers for Disease Control and Prevention

*Vital Signs: Awareness and Treatment of Uncontrolled Hypertension Among Adults—United States, 2003–2010*

[www.cdc.gov/mmwr/preview/mmwrhtml/mm6135a3.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6135a3.htm)

*Fast Stats: Leading Causes of Death*

[www.cdc.gov/nchs/fastats/lcod.htm](http://www.cdc.gov/nchs/fastats/lcod.htm)

American Heart Association

*Heart Disease and Stroke Statistics—2012 Update*

<http://circ.ahajournals.org/content/125/1/e2.full>

## Citation

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*The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.*

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