

## Urban-Rural Differences in Coronary Heart Disease Death Rates in the United States: 1999–2009

The following is a synopsis of “Urban-Rural Differences in Coronary Heart Disease Mortality in the United States: 1999–2009,” published in the January/February 2014 issue of *Public Health Reports*.



### What is already known on this topic?

Coronary heart disease (CHD)—also called coronary artery disease—occurs when plaque builds up in the arteries supplying blood to the heart. CHD is the leading cause of death overall in the United States, resulting in about 600,000 deaths every year. Although U.S. CHD death rates have declined since the 1990s due to efforts to prevent the onset of CHD and to detect the disease early, the general decline may mask less encouraging trends in CHD death rates for certain geographic regions and population groups.

### What is added by this document?

Few previous studies have described regional differences and trends in CHD death rates during recent years in the United States. In this study, the authors described the pattern and extent of urban-rural differences in CHD death rates by geographic region (Northeast, Midwest, West, and South) from 1999 to 2009. The authors found that:

- ▶ Overall, the CHD death rate among Americans aged 35–84 years declined 40%.
- ▶ The death rate declined faster in urban areas than in rural areas in all four regions, resulting in rural areas

having a higher CHD death rate than urban areas starting around 2007.

- ▶ Although the CHD death rates for black and white people showed a similar overall decline, blacks had a higher CHD death rate than whites (regardless of region or urbanization level) throughout the study period.
- ▶ The decline in deaths due to early-onset CHD, defined as death due to CHD in females before age 65 and males before age 55, was smaller (30%) than the overall decline in CHD death rate.
- ▶ Urban areas had higher CHD death rates compared with rural areas in all regions except the South, where the reverse was true.

### What are the applications for these findings?

The results suggest that factors influencing the decline of CHD death rates are not benefiting all U.S. population groups equally. Declining overall trends in CHD deaths may mask important differences in some regions and among some groups. The reasons behind the observed trends are complex and require further study to 1) understand the slower decline

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of CHD deaths in rural areas; 2) explore possible reasons for differences in CHD death trends and tailor preventive strategies for different populations; and 3) determine whether urban-rural differences result from variations in lifestyle factors, environmental factors, and/or quality of health

care. Understanding reasons for these observed disparities will allow policy makers to create more effective CHD prevention programs tailored to groups and regions affected disproportionately by CHD.

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## Resources

Centers for Disease Control and Prevention  
*Coronary Artery Disease*  
[www.cdc.gov/heartdisease/coronary\\_ad.htm](http://www.cdc.gov/heartdisease/coronary_ad.htm)

American Heart Association  
*Coronary Artery Disease – Coronary Heart Disease*  
[www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/Coronary-Artery-Disease---The-ABCs-of-CAD\\_UCM\\_436416\\_Article.jsp](http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/Coronary-Artery-Disease---The-ABCs-of-CAD_UCM_436416_Article.jsp)

National Heart, Lung, and Blood Institute  
*What is Coronary Heart Disease?*  
[www.nhlbi.nih.gov/health/health-topics/topics/cad](http://www.nhlbi.nih.gov/health/health-topics/topics/cad)

## 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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