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Executive Summary

The Division for Heart Disease and Stroke Prevention, Centers for Disease Control and Prevention (CDC), is pleased to present this *Atlas of Heart Disease Hospitalizations Among Medicare Beneficiaries*. The maps presented in this *Atlas* highlight the geographic disparities in heart disease hospitalizations in the United States, Puerto Rico, and the U.S. Virgin Islands during 2000–2006.

The *Atlas of Heart Disease Hospitalizations Among Medicare Beneficiaries* includes the following county-level maps:

- Average, annual heart disease hospitalization rates by major heart disease subtype and race/ethnicity.
- Heart disease hospitalizations by discharge status.
- Distribution of hospitals and heart disease specialists.

A major finding in this *Atlas* is the variation in geographic patterns by racial/ethnic group. The maps illustrate that health professionals who are working to prevent and treat heart disease among racial and ethnic groups should consider the unique geographic patterns for each group. This knowledge can help them to design more effective policies, programs, and interventions.

To facilitate the comparison of heart disease hospitalizations by race/ethnicity, we have included two sections titled Maps At a Glance that present race-specific maps for heart disease hospitalization subtypes and discharge destinations side-by-side.

This publication reflects the commitment of CDC's Division for Heart Disease and Stroke Prevention to examine patterns of geographic disparities in disease and death for heart disease and stroke. We envision the maps in this *Atlas* being used at local, state, regional, and federal levels to promote health system policies, program development, and environmental or community changes that can lead to reductions in the geographic disparities illustrated in these pages.

Highlights of the data presented in this *Atlas* are outlined in the following sections.

Demographics of National Heart Disease Hospitalization Rates

During 2000–2006, the average, annual age-adjusted rates of heart disease hospitalizations among Medicare beneficiaries ages 65 years and older were higher for men (88.8 per 1,000) compared with women (65.6 per 1,000). In addition, rates were highest among blacks (85.3 per 1,000) compared with Hispanics (73.6 per 1,000) and whites (74.4 per 1,000) (see Table 1.3 in Section 1).

Rates of heart disease hospitalizations increased sharply with age. The rate for the oldest age group in our study population (≥ 85 years) was about 2.2 times higher than the rate for the youngest age group (65–74 years) (see Table 1.3 in Section 1).

Heart Disease Hospitalization Rates by Major Subtype and Race/Ethnicity

Among heart disease hospitalizations, coronary heart disease is the most common subtype (42.0%), followed by heart failure (28.9%), and cardiac dysrhythmia (17.8%) (see Table 1.2 and Figure 1.1 in Section 1).

The maps of heart disease hospitalization rates for all heart diseases and coronary heart disease for the total population show that rates are highest in counties in parts of Appalachia, Louisiana, Texas, Oklahoma, and the Southeast. For acute myocardial infarction, rates were highest in counties in parts of Appalachia, Maine, and Oklahoma. For heart failure, counties with high rates were concentrated in parts of Appalachia, the Mississippi and Ohio River Valley, Texas, and Oklahoma.

Heart Disease Hospitalization Rates by Hospital Discharge Status

During 2000–2006, most of the Medicare beneficiaries hospitalized for heart disease were discharged home (73.1%). Skilled nursing facilities (10.8%) accounted for the second largest percentage of discharged patients, followed by the categories of other care facilities (8.9%), died within 30 days (6.4%), and died before discharge (4.3%) (see Figures 1.8 and 1.9 and Table 1.4 in Section 1).

The maps of heart disease hospitalization by discharge status show different geographic patterns for each discharge destination. Counties with the highest percentages of heart disease patients discharged home were concentrated primarily in Montana, Idaho, Oregon, Arizona, New Mexico, Alaska, Puerto Rico, and Texas.

Counties with the highest percentages of patients discharged to skilled nursing facilities were found mostly in Minnesota, Wisconsin, Indiana, Ohio, Pennsylvania, Massachusetts, and Rhode Island. Counties with the highest percentages of patients who died before discharge were found mostly in California, Arkansas, Mississippi, Tennessee, and New York.

Hospitals and Cardiologists, 2005

In 2005, there were 4,823 short-term general hospitals, 3,880 short-term hospitals with emergency departments, 2,263 short-term hospitals with cardiac rehabilitation services, and 1,455 short-term hospitals with cardiac intensive care services. There were 21,819 nonfederal cardiologists in the United States.

Also in 2005, 21% of all counties were lacking short-term general hospitals, 31% were lacking short-term general hospitals with emergency departments, 55% were lacking short-term general hospitals with cardiac rehabilitation services, 75% were lacking short-term general hospitals with cardiac intensive care services, and 63% were lacking a nonfederal cardiologist.

The maps show that counties with the largest number of short-term general hospitals with cardiac-related services (i.e., emergency departments, rehabilitative services, and intensive care services) and the largest number of cardiologists were located primarily in urban areas.