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4 Maps At a Glance: Hospitalization Rates, by Subtype and Race/Ethnicity

In this section, we placed multiple maps on a page to enhance the reader's ability to visually compare geographic patterns. To ease visual comparison across maps in this section, we only included the continental United States, and we omitted the frequency distribution graphs.

Heart Disease Subtype

The first set of maps compares the geographic patterns of different heart disease subtypes for the total population of Medicare beneficiaries presented in this *Atlas*. These subtypes include the following, as defined by the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM):

Subtype	ICD-9-CM Code
Coronary Heart Disease	410–414, 429.2
Acute Myocardial Infarction	410
Cardiac Dysrhythmia	427
Heart Failure	428

A total of 42.0% of the heart disease hospitalizations among Medicare beneficiaries were for coronary heart disease, 15.7% were for acute myocardial infarction, 17.8% were for cardiac dysrhythmia, 28.9% were for heart failure, and 11.3% were for other diseases of the heart. See Appendix B for detailed definitions of the heart disease subtypes presented in this *Atlas*.

The next sets of maps in this section compare the geographic patterns for each of the heart disease subtypes by race/ethnicity.

A Note on Methods

Heart disease hospitalizations were defined as those for which the principal diagnosis on the Medicare hospital claim form was one of the following ICD-9-CM codes: 391–398, 402, 404, 410–416, and 420–429.

For each map, the counties are categorized according to quintile; the darkest color represents counties with the highest rates, and the lightest color represents counties with the lowest rates.

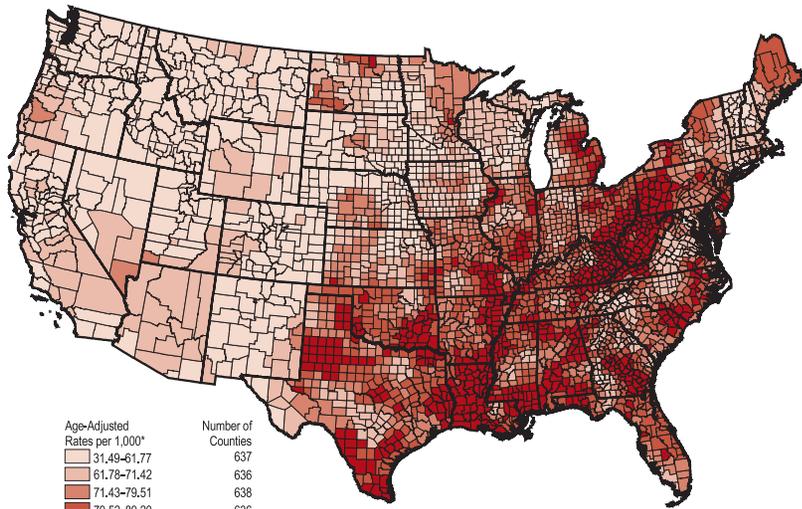
All county-level rates have been spatially smoothed to enhance the stability in counties with small populations. For a detailed explanation of the methods, see Appendix B.

A Cautionary Note

In the Medicare data sets, the accuracy of codes for Hispanic race and ethnicity is limited because these codes are not reported separately. For example, a person who is white and Hispanic is reported as either white or Hispanic. This reporting practice can result in misclassification of race and ethnicity.

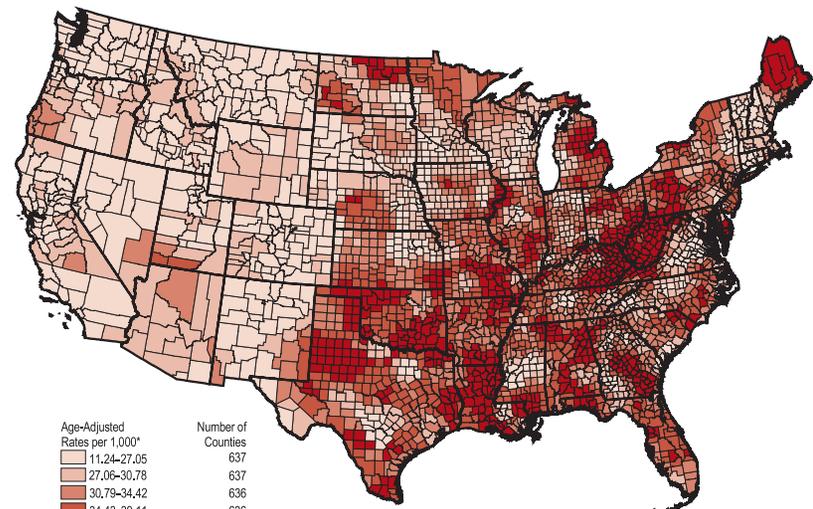
Some studies show evidence that Hispanics are underreported in the Medicare data sets and that this underreporting could introduce bias into the results presented here. (See Appendix B for more details.)

Heart Disease Hospitalization Rates, Total Population
Medicare Beneficiaries Ages 65 and Older, 2000–2006



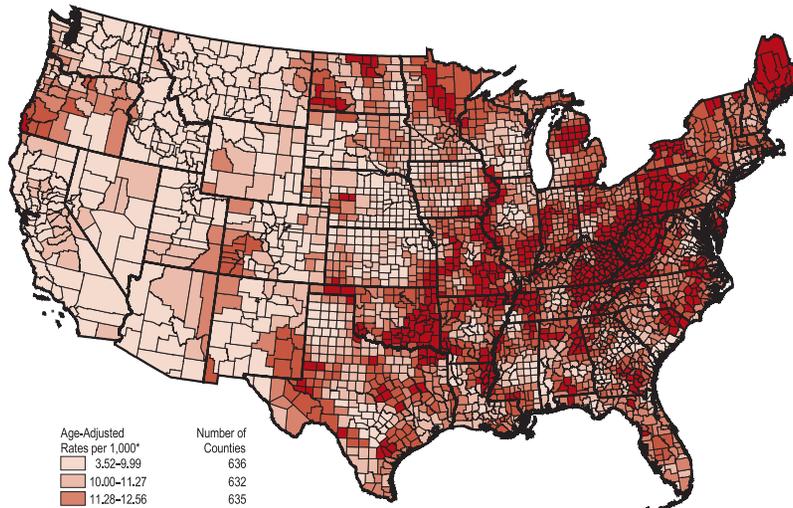
Age-Adjusted Rates per 1,000*	Number of Counties
31.49–61.77	637
61.78–71.42	636
71.43–79.51	636
79.52–89.20	636
89.21–170.61	637
Insufficient Data	3

All Heart Diseases



Age-Adjusted Rates per 1,000*	Number of Counties
11.24–27.05	637
27.06–30.78	637
30.79–34.42	636
34.43–39.11	636
39.12–91.23	636
Insufficient Data	5

Coronary Heart Disease

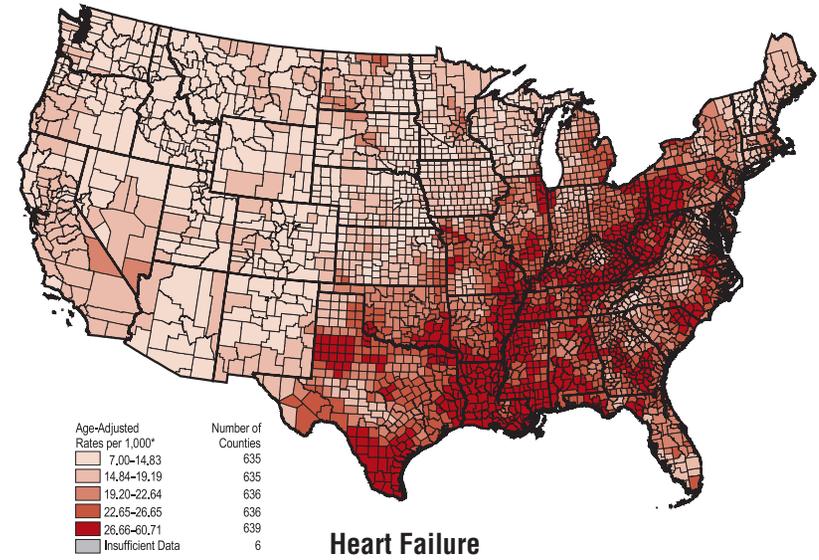
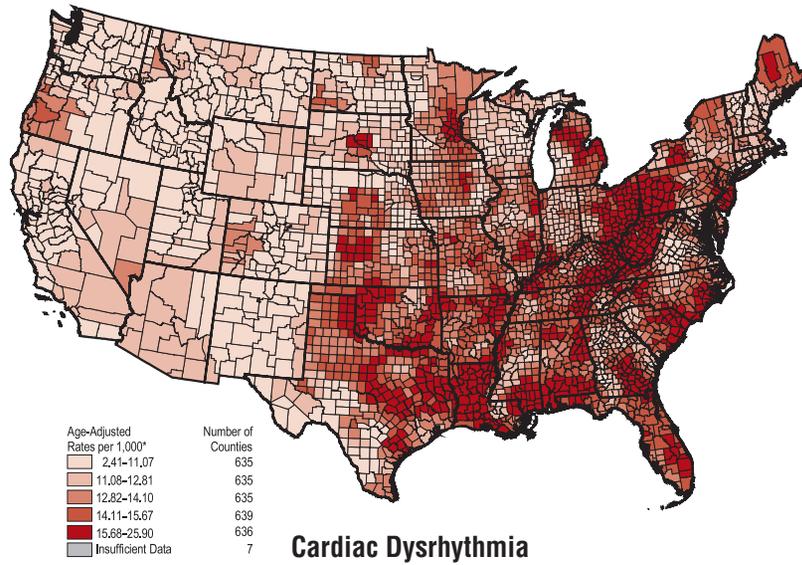


Age-Adjusted Rates per 1,000*	Number of Counties
3.52–9.99	636
10.00–11.27	632
11.28–12.56	635
12.57–14.13	639
14.14–31.10	639
Insufficient Data	6

Acute Myocardial Infarction

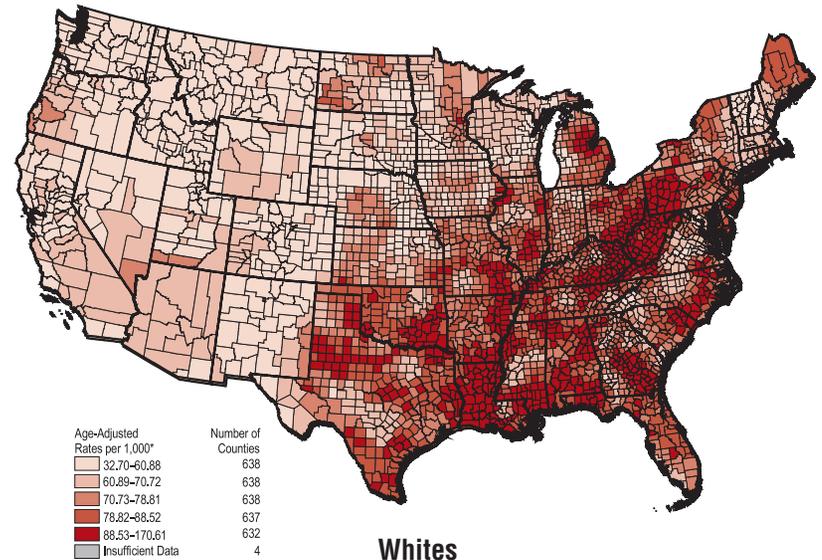
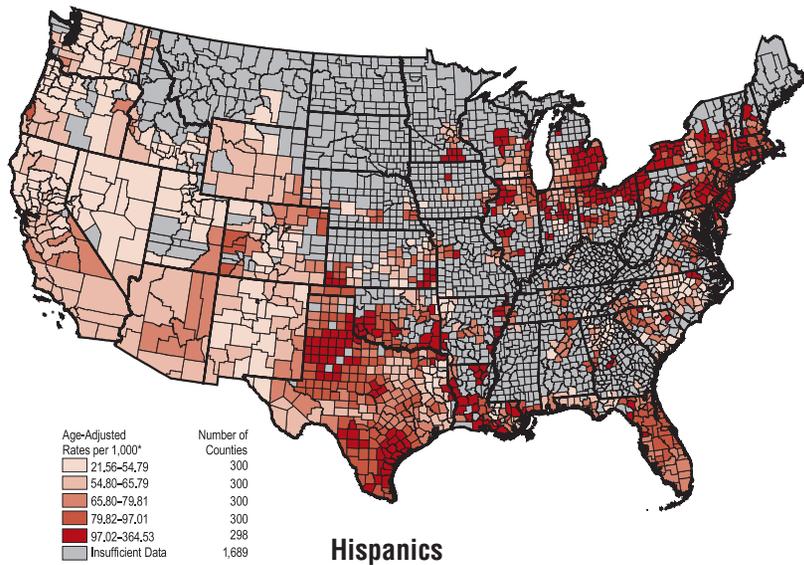
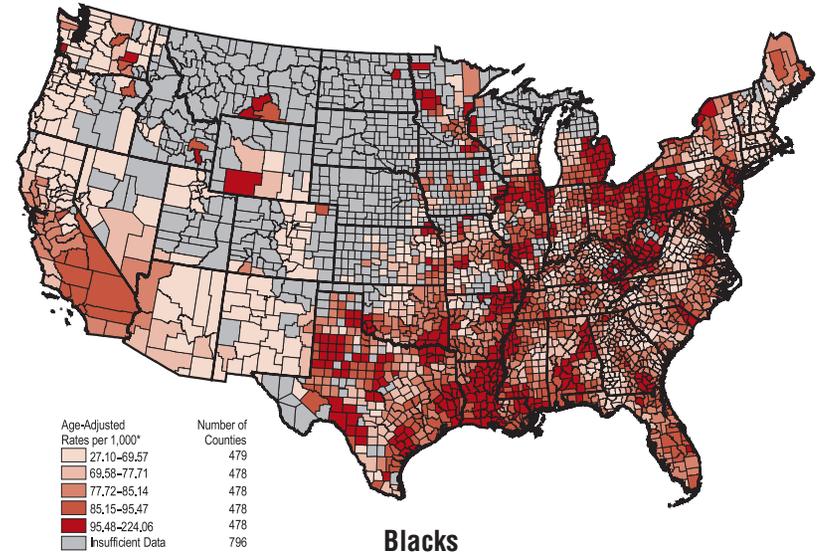
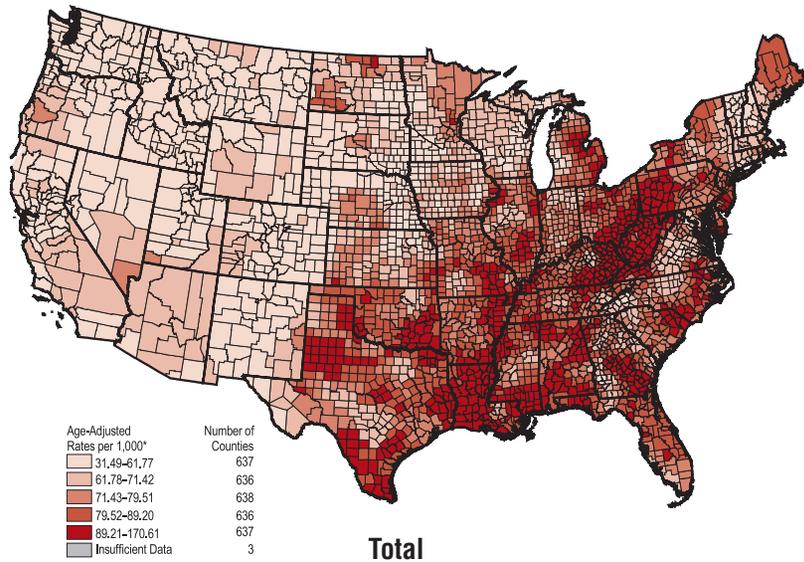
* ICD-9-CM codes for all heart diseases are 391–398, 402, 404, 410–416, and 420–429. Codes for specific subtypes are as follows: coronary heart disease, 410–414 and 429.2; acute myocardial infarction, 410; cardiac dysrhythmia, 427; and heart failure, 428. Hospitalization rates are spatially smoothed to enhance the stability of rates in counties with small populations.

Heart Disease Hospitalization Rates, Total Population Medicare Beneficiaries Ages 65 and Older, 2000–2006



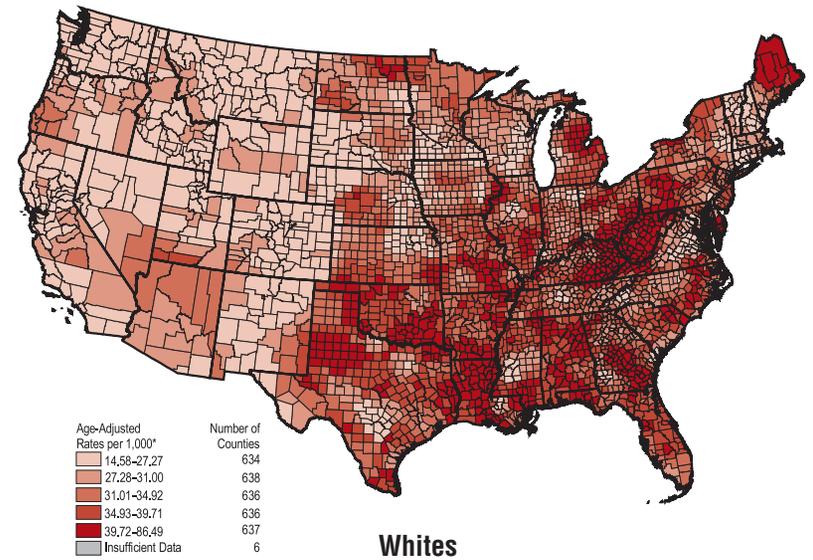
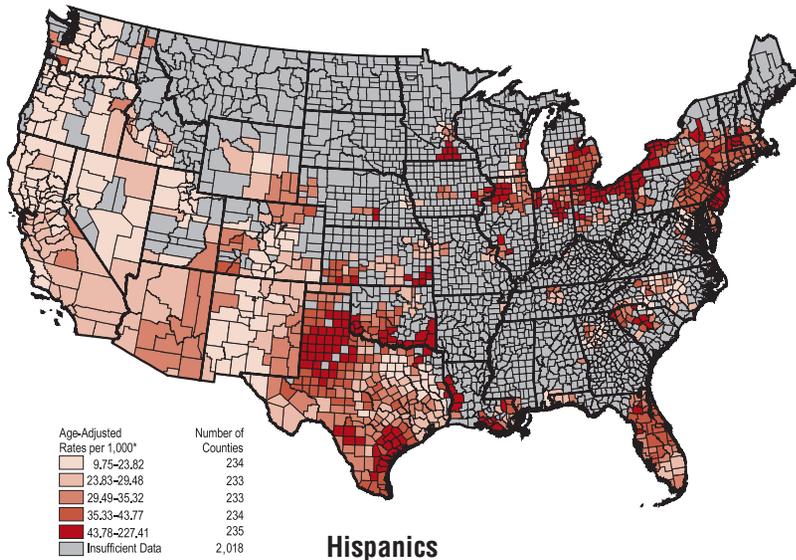
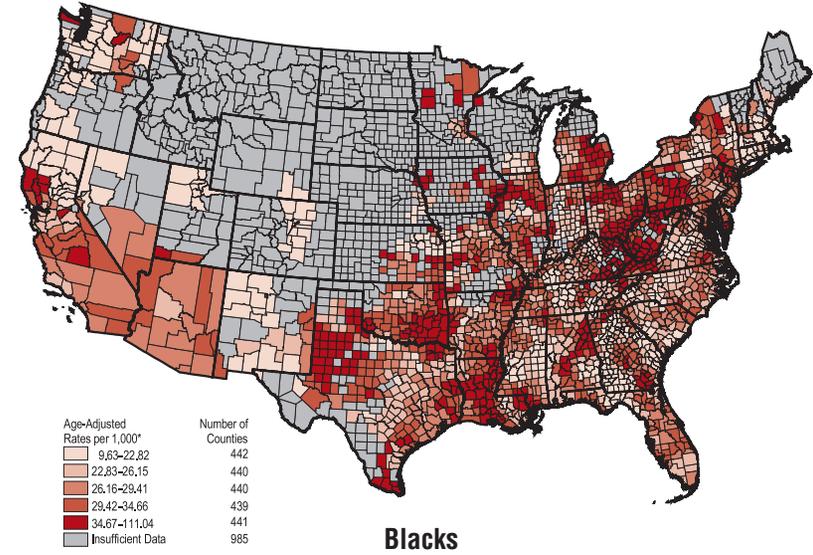
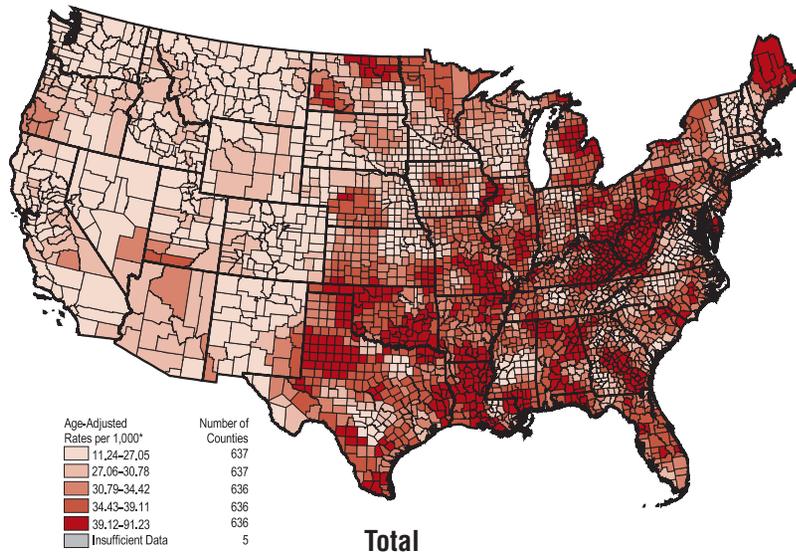
* ICD-9-CM codes for all heart diseases are 391–398, 402, 404, 410–416, and 420–429. Codes for specific subtypes are as follows: coronary heart disease, 410–414 and 429.2; acute myocardial infarction, 410; cardiac dysrhythmia, 427; and heart failure, 428. Hospitalization rates are spatially smoothed to enhance the stability of rates in counties with small populations.

Heart Disease Hospitalization Rates, All Heart Disease Medicare Beneficiaries Ages 65 and Older, 2000–2006



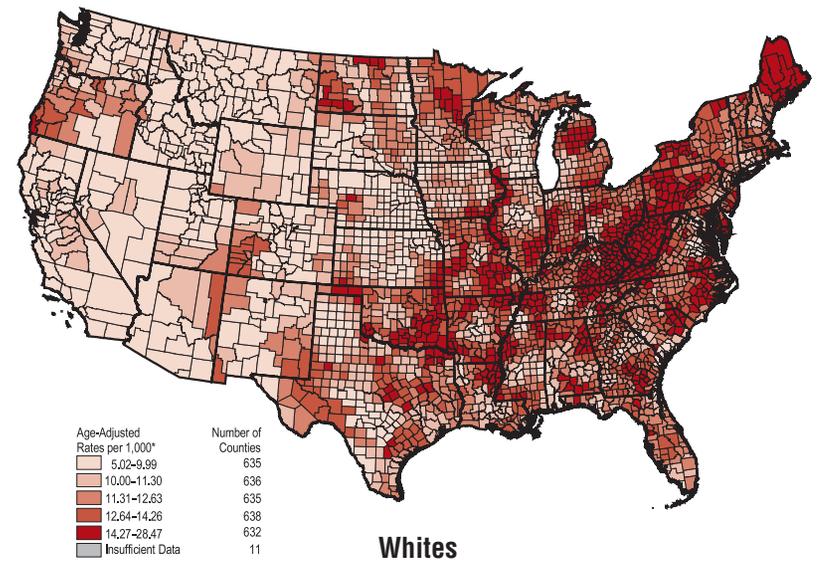
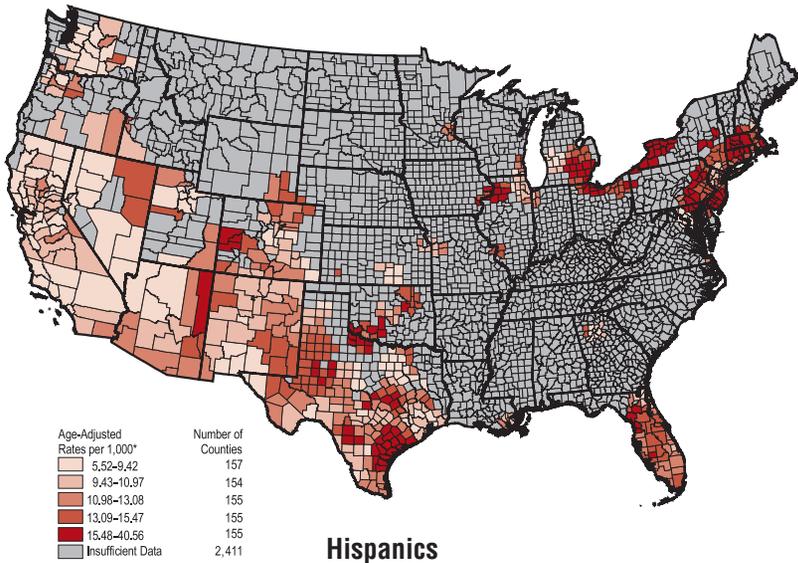
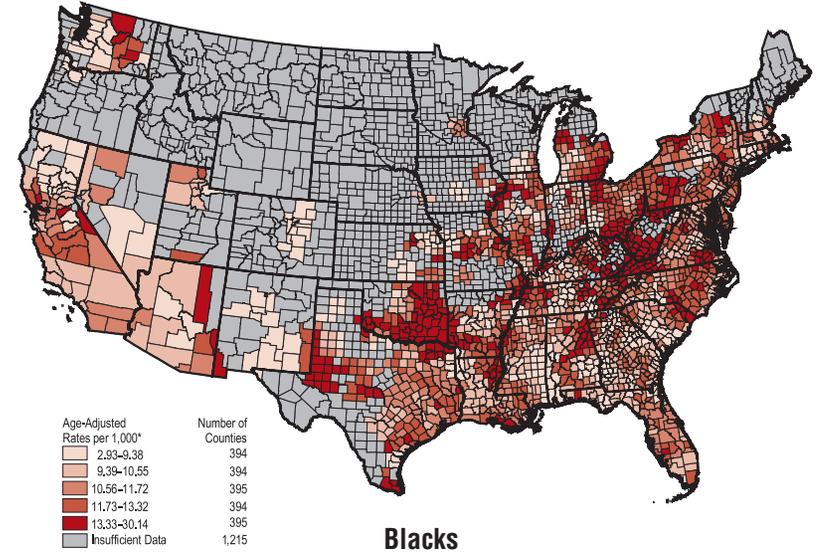
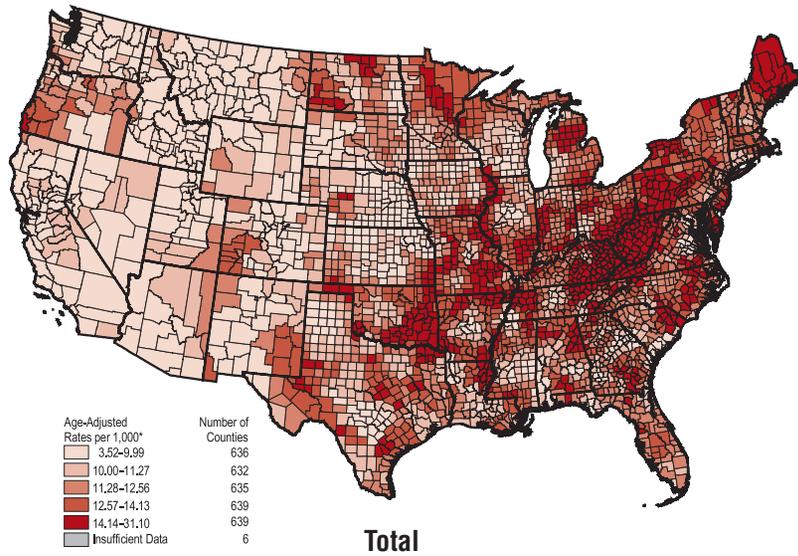
* ICD-9-CM codes for all heart diseases are 391–398, 402, 404, 410–416, and 420–429. Hospitalization rates are spatially smoothed to enhance the stability of rates in counties with small populations.

Heart Disease Hospitalization Rates, Coronary Heart Disease Medicare Beneficiaries Ages 65 and Older, 2000–2006



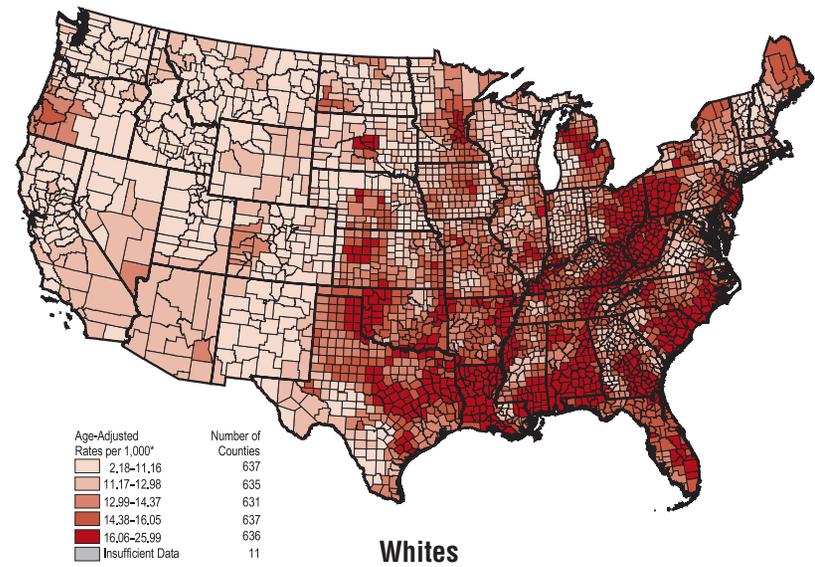
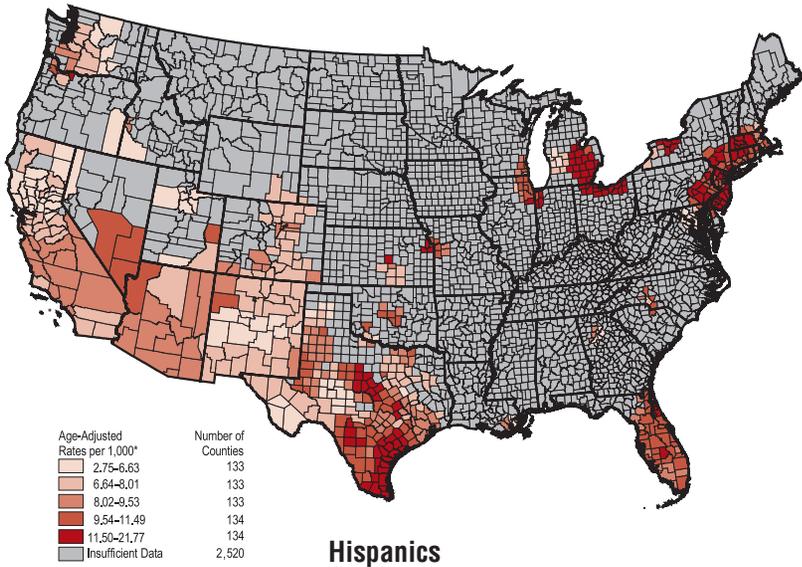
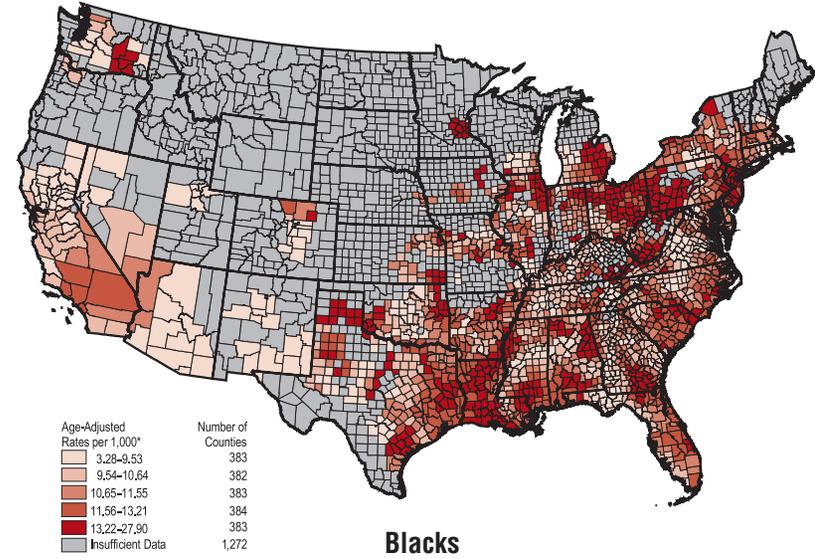
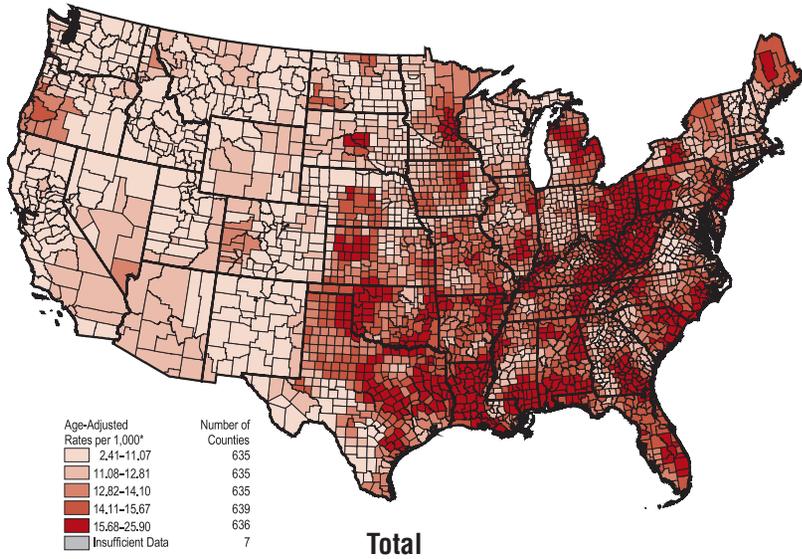
* ICD-9-CM codes for coronary heart disease are 410–414 and 429.2. Hospitalization rates are spatially smoothed to enhance the stability of rates in counties with small populations.

Heart Disease Hospitalization Rates, Acute Myocardial Infarction Medicare Beneficiaries Ages 65 and Older, 2000–2006



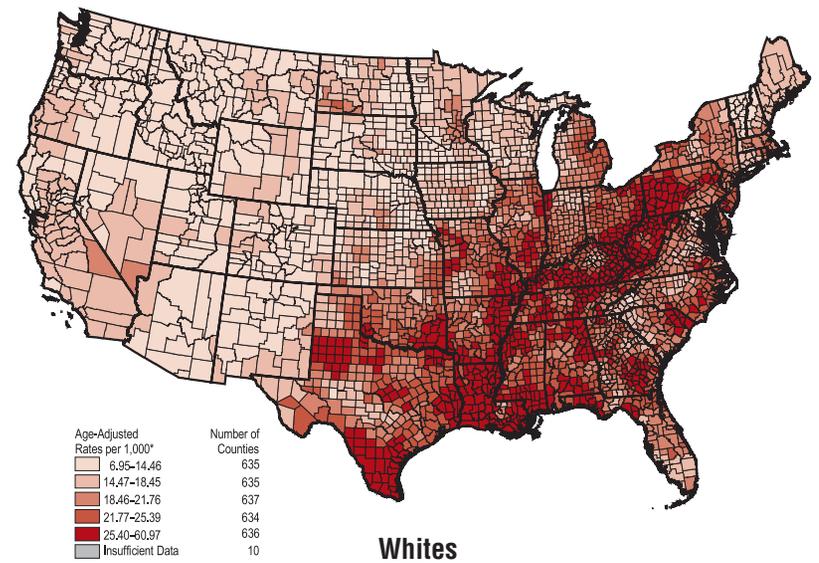
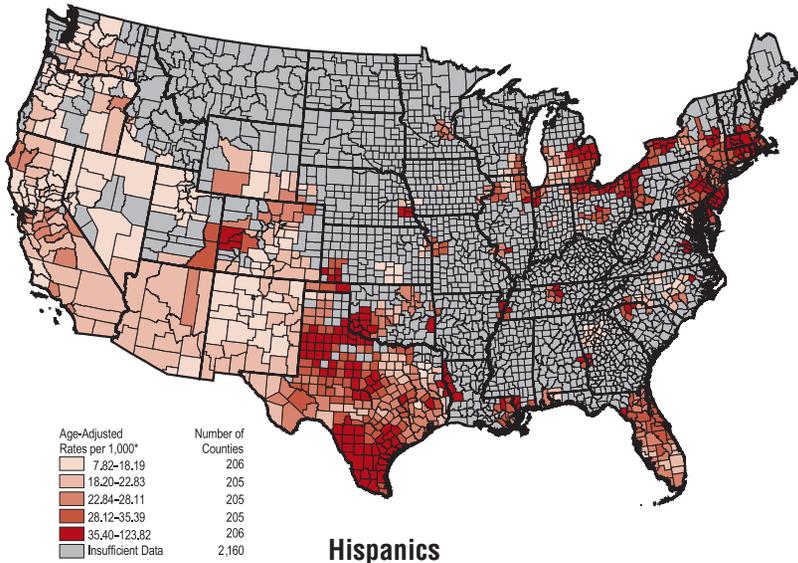
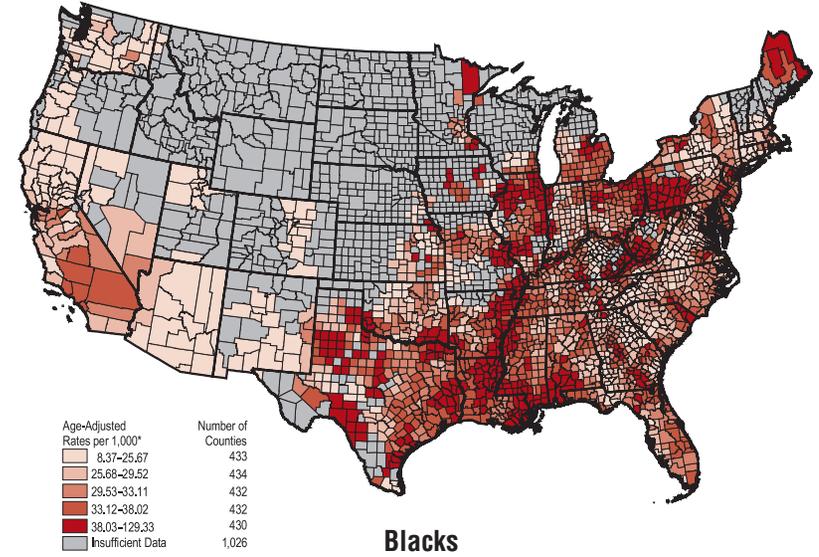
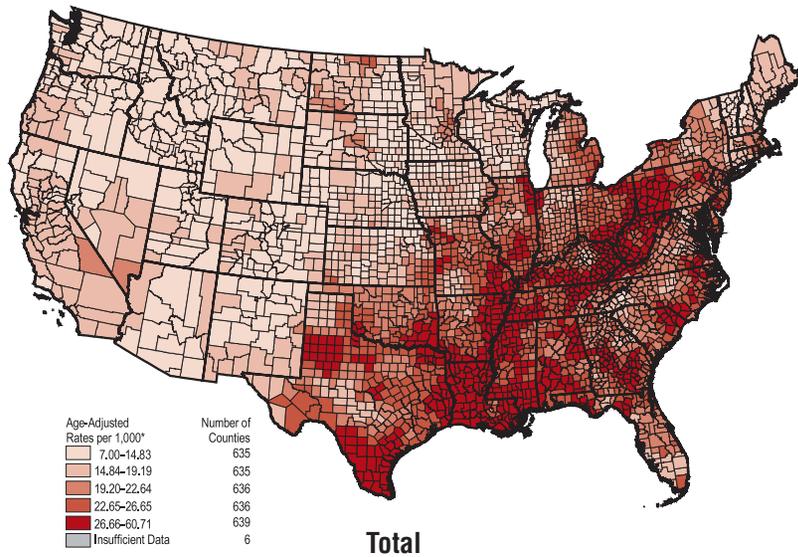
* ICD-9-CM code for acute myocardial infarction is 410. Hospitalization rates are spatially smoothed to enhance the stability of rates in counties with small populations.

Heart Disease Hospitalization Rates, Cardiac Dysrhythmia Medicare Beneficiaries Ages 65 and Older, 2000–2006



* ICD-9-CM code for cardiac dysrhythmia is 427. Hospitalization rates are spatially smoothed to enhance the stability of rates in counties with small populations.

Heart Disease Hospitalization Rates, Heart Failure Medicare Beneficiaries Ages 65 and Older, 2000–2006



* ICD-9-CM code for heart failure is 428. Hospitalization rates are spatially smoothed to enhance the stability of rates in counties with small populations.