

1. All-Cause mortality in Appalachia

Combined mortality from all causes provides a good indicator of the mortality burden and overall health experience of local areas. In many cases high rates of all-cause mortality result from high death rates from specific diseases which are dominant causes of death. In other cases, high death rates from all causes may result from a combination of high death rates from a number of specific diseases.

County level maps of all-cause death rates are presented for black and white men and women in two age categories; 35 to 64 and 65 and older.

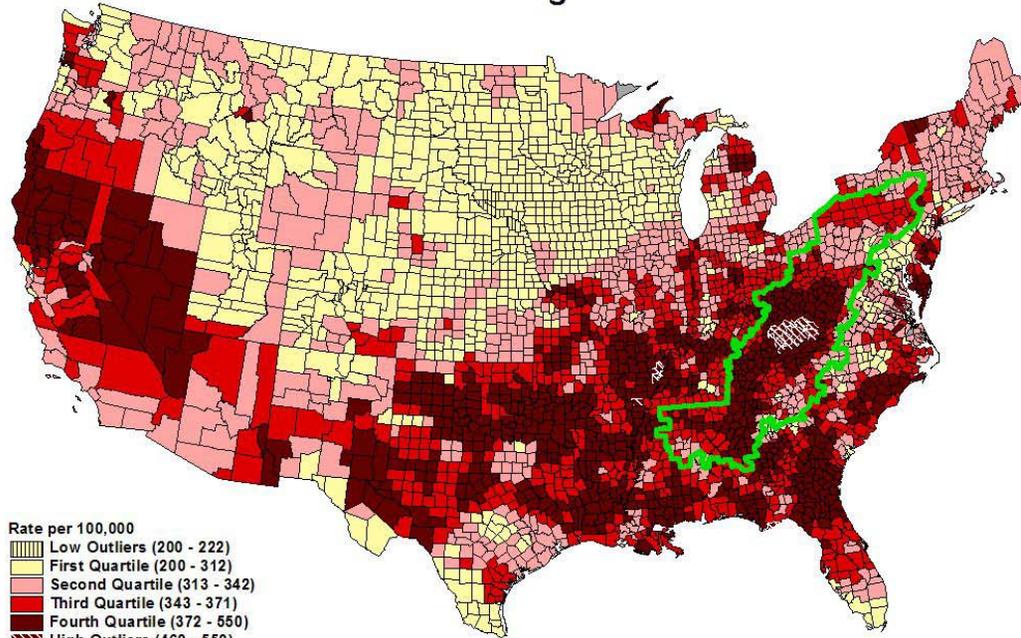
County Rates of Mortality from All Causes

National maps for white women are shown on page 21 to highlight the general geographic trend in mortality across the country. These maps depict strong geographic gradients which exist in both north-south and east-west directions within generally higher rates in the Eastern and Southeastern U.S. Another important feature of these maps is the presence of high outlier counties (unusually high death rates) in the Appalachian region. These maps reveal the largest clusters of high outlier counties exist in the Central Appalachian region for white women of both ages groups. Similar clusters exist for white men ages 35 to 64. The complete set of national maps is presented in Appendix A.

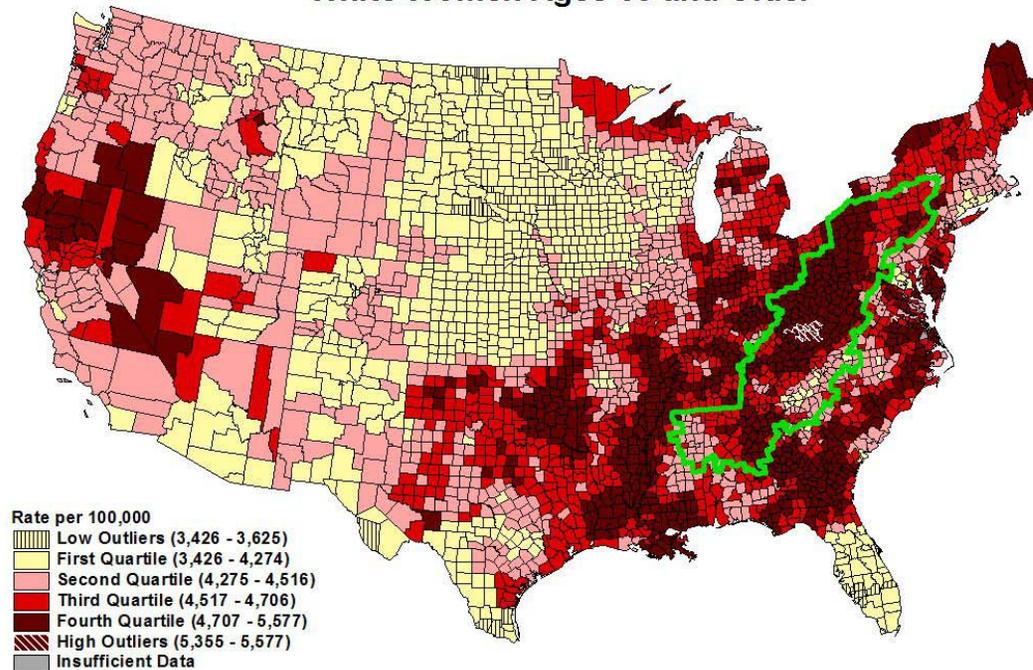
County level rates of mortality from all causes for the Appalachian region are shown on pages 22-25. Some very clear geographic patterns are evident in the distribution of all-cause mortality rates and are fairly consistent among the demographic subgroups. The geographic patterns are nearly

identical for white men and women in both age categories with high rate areas concentrated in the Central Appalachian counties in portions of Eastern Kentucky, Southern Ohio, Southern West Virginia, and Western Virginia. Additional high rate counties appear in the Southern portion of the region. High outliers in the distributions for white men and women in both age categories cluster in Eastern Kentucky and Southern West Virginia. A notable group of counties appear as low outliers in Western North Carolina and Northern Georgia for elderly, white men and women. The geographic patterns for black men and women are less consistent, although there are similarities with the distribution for white men and women. Most notable are high rate areas in the Central and Southern Appalachian counties. Some notable gender differences are evident among the black population. High mortality rates have a more southerly orientation for black men while the high rates for black women are more diffuse and a high outlier cluster of counties appears in Northeastern Pennsylvania for black women ages 35 to 64.

White Women Ages 35 to 64

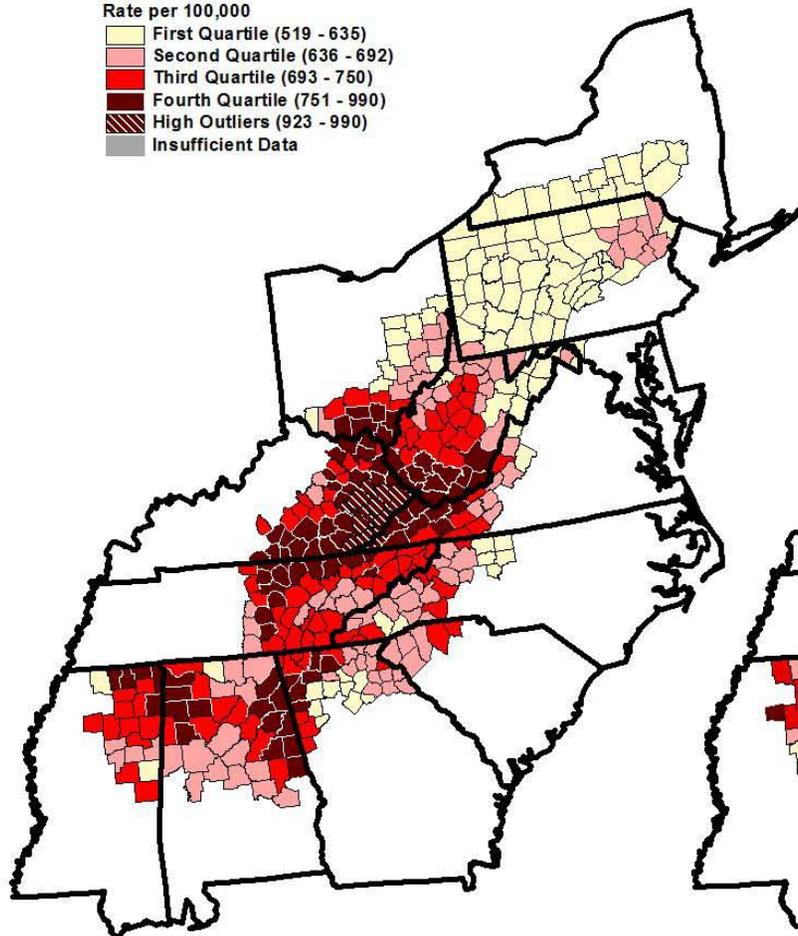
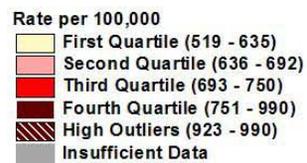


White Women Ages 65 and Older

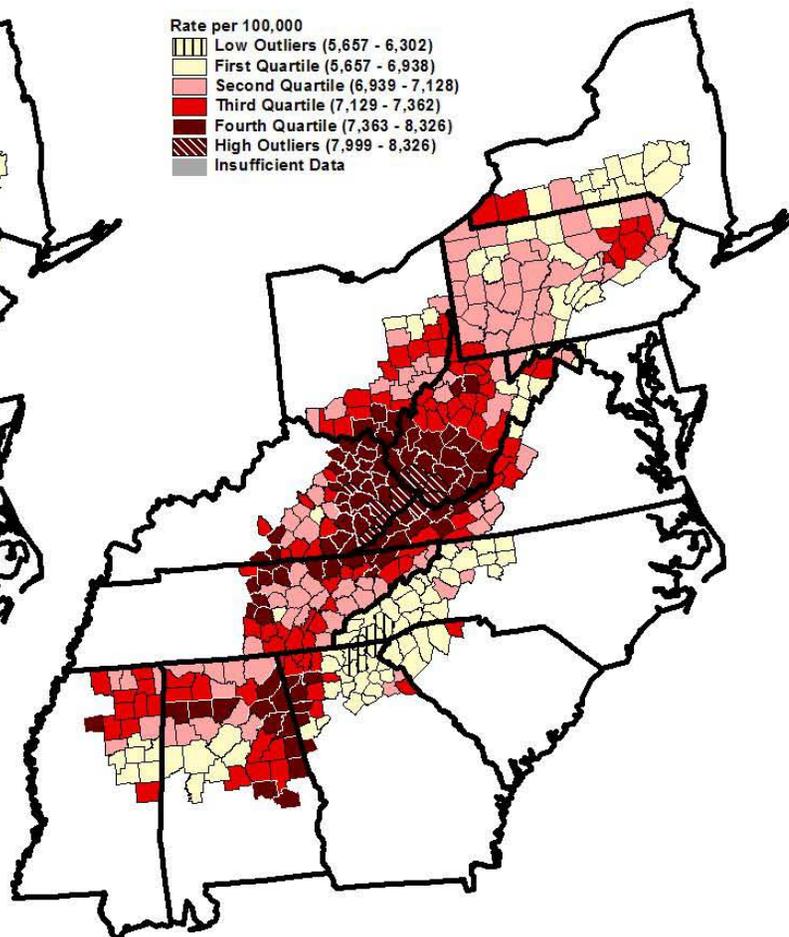


Smoothed All-Cause Death Rate, 1990-1997

White Men Ages 35 to 64

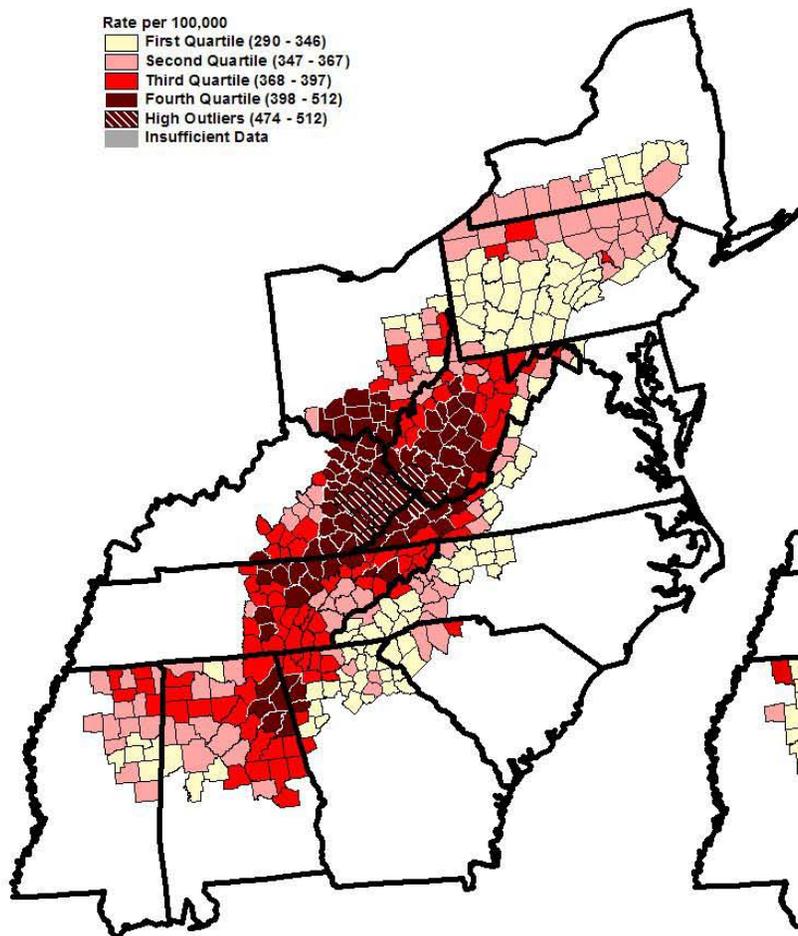


White Men Ages 65 and Older

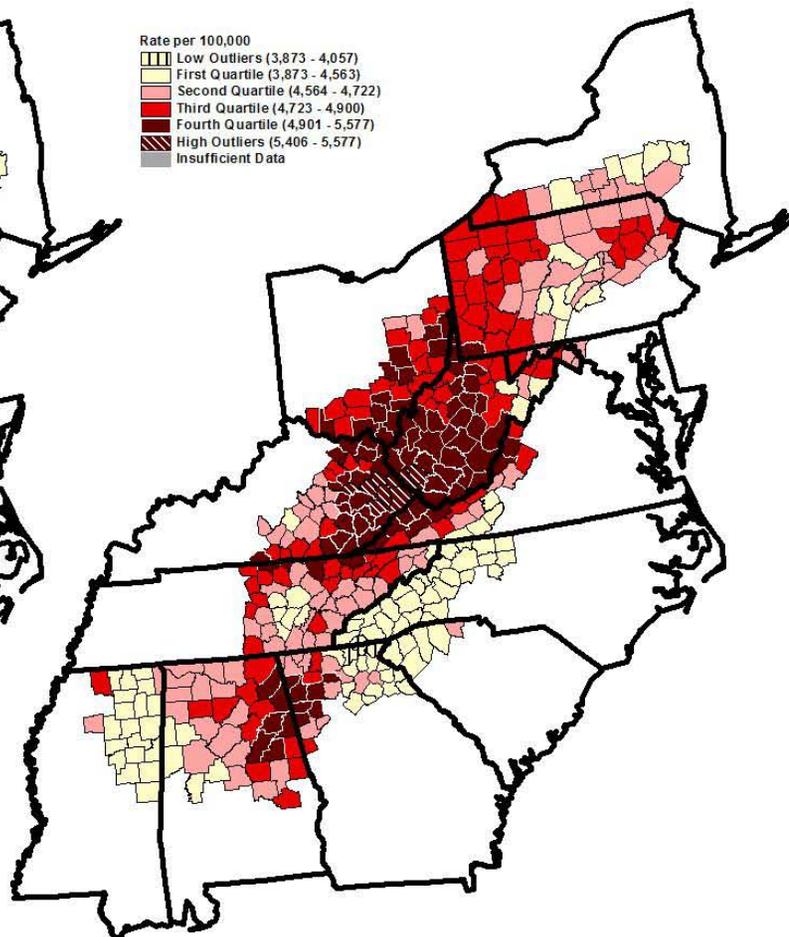


Smoothed All-Cause Death Rate, 1990-1997

White Women Ages 35 to 64

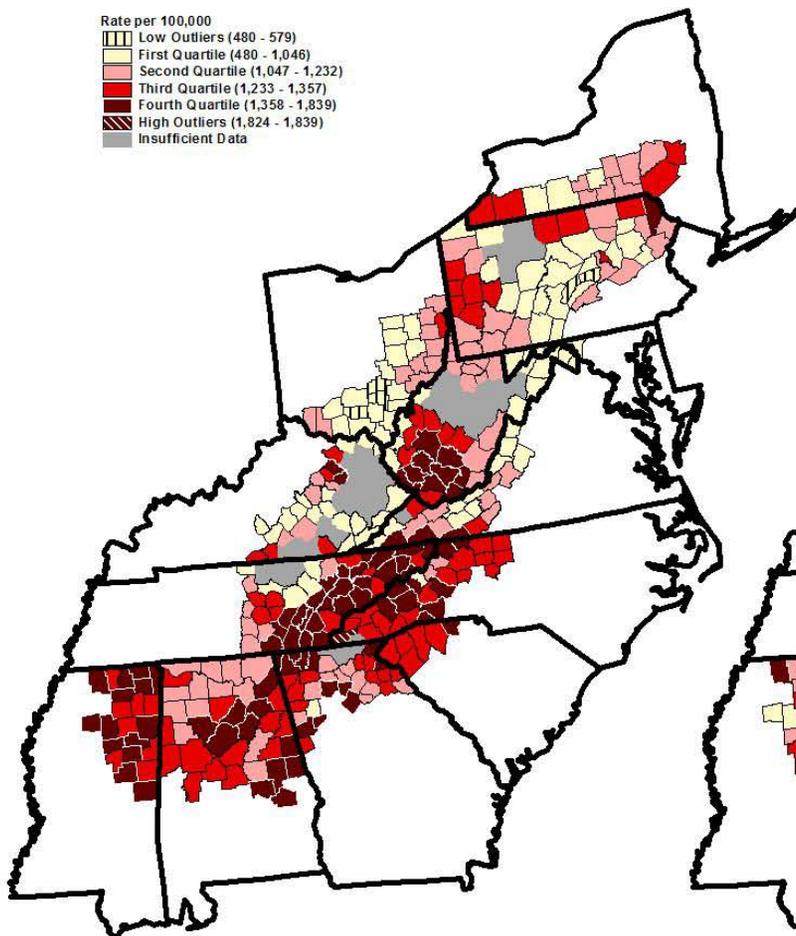
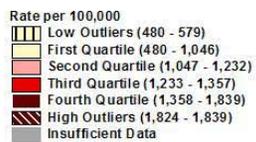


White Women Ages 65 and Older

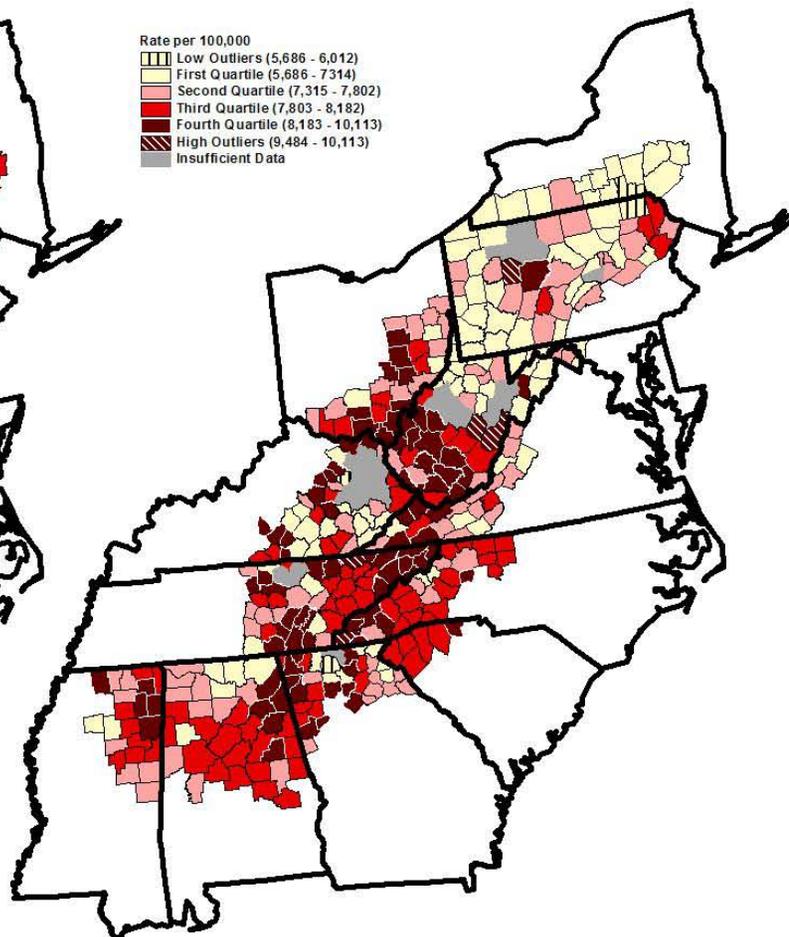


Smoothed All-Cause Death Rate, 1990-1997

Black Men Ages 35 to 64

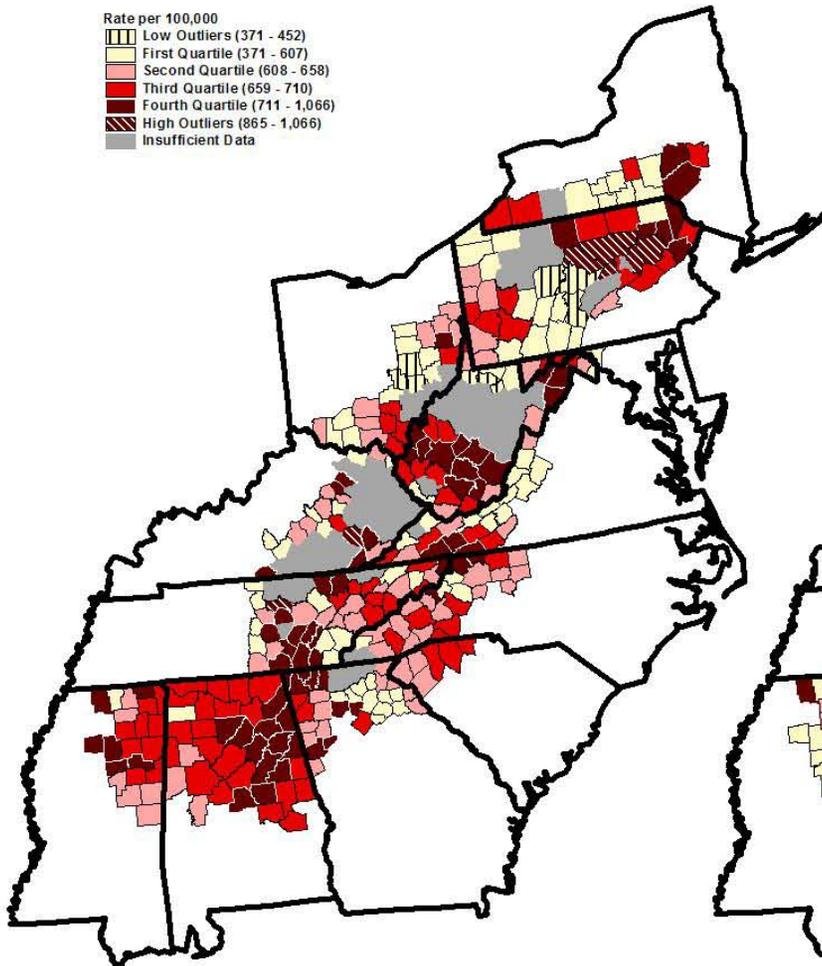


Black Men Ages 65 and Older

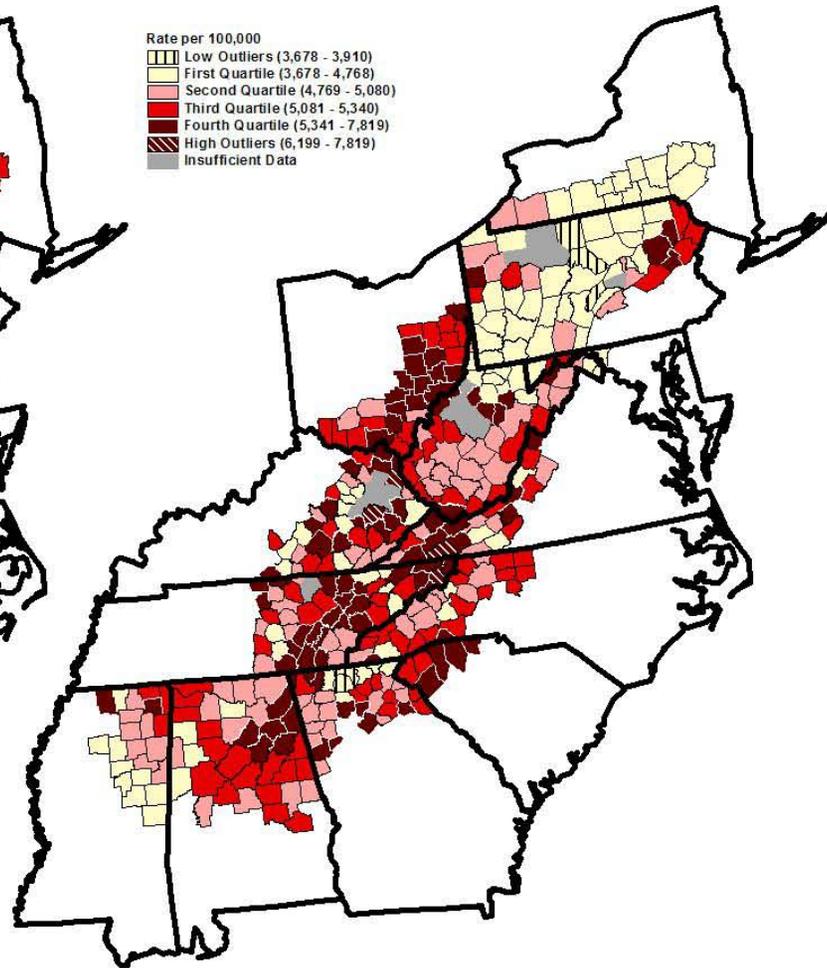


Smoothed All-Cause Death Rate, 1990-1997

Black Women Ages 35 to 64



Black Women Ages 65 and Older



2. County-Level Trends in All-Cause Mortality

Trends in mortality, in addition to aggregate rates, provide important clues regarding the overall health of a population. Overall declining rates of mortality in the U.S. reflect a number of factors including improvements in overall standards of living, medical advancements in the diagnosis and treatment of a number of diseases, and an increasing awareness of the overall population regarding health risks. While national trends are generally in decline, local variability in the rate of decline or in the nature of the trend (i.e. increasing trend), may result from a number of factors including differential access to medical care resources, changes in the environment or socioeconomic conditions of local areas, and differential rates of diffusion of knowledge regarding health risks.

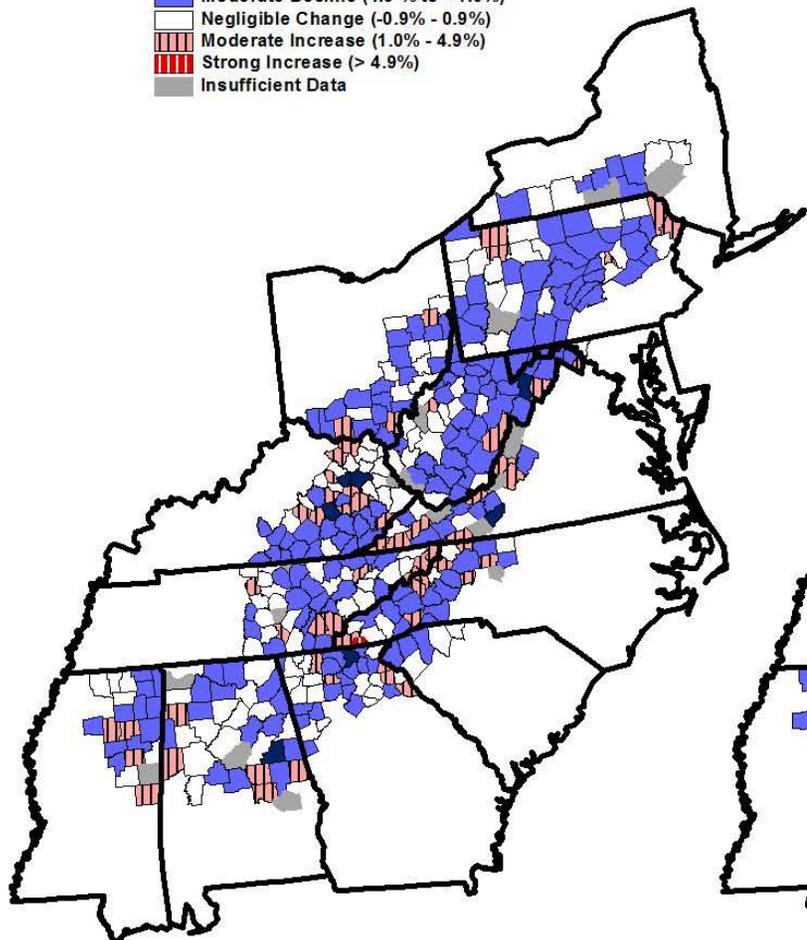
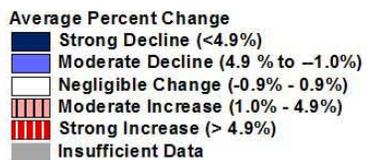
County-level trends in all-cause mortality have been estimated over the period 1985-1997 for white and black men and women in age groups 35 to 64 and 65 and older. (refer to Section I B. County level Mortality Analyses and the Technical Appendix B for details on the estimation of mortality trends.) Variation in mortality trends may reveal important clues regarding the conditions and events that affect the changing mortality experience of local areas.

Maps which present all-cause mortality trend estimates are presented on pages 27-30. There appears to be a great deal of variability in the mortality trends among counties in the Appalachian region, and substantial differences in the trends among race/ethnic, gender, and age groups. For white men in both age groups the trends of all cause mortality are overwhelmingly positive, with the greatest number of counties experiencing moderate declines over the study period. However, many counties have experienced negligible change (arguably a negative outcome) and a number of counties have

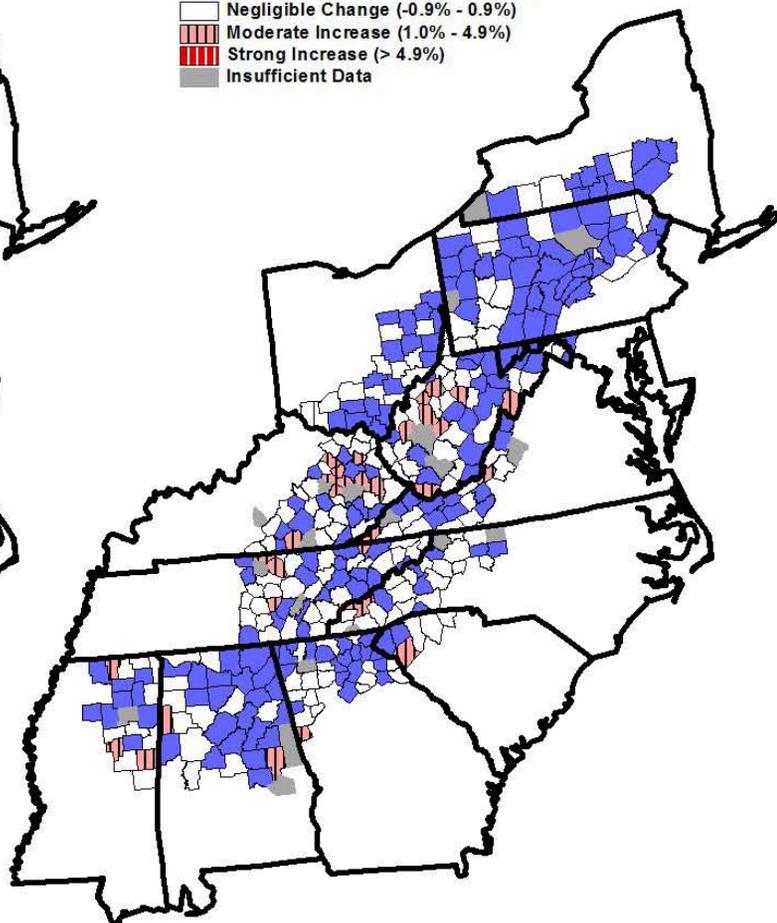
experienced moderate increases. The majority of counties experiencing moderate increases among white men occur in Central and Southern Appalachia. Mortality trends for white women are less positive, particularly among elderly white women where the majority of counties experienced either negligible change or moderate increases. While the trends for white women ages 35 to 64 are generally positive with the majority of counties experiencing moderate decline, a number of counties in the southern half of the region have experienced a strong increase in mortality over the study period. A limited number of counties had sufficient data points to calculate trends for black men and women; however, for those counties with estimated trends, the majority has experienced moderate declines with some counties in the south experiencing adverse trends.

Trends in All Cause Mortality, 1985-1997

White Men Ages 35 to 64

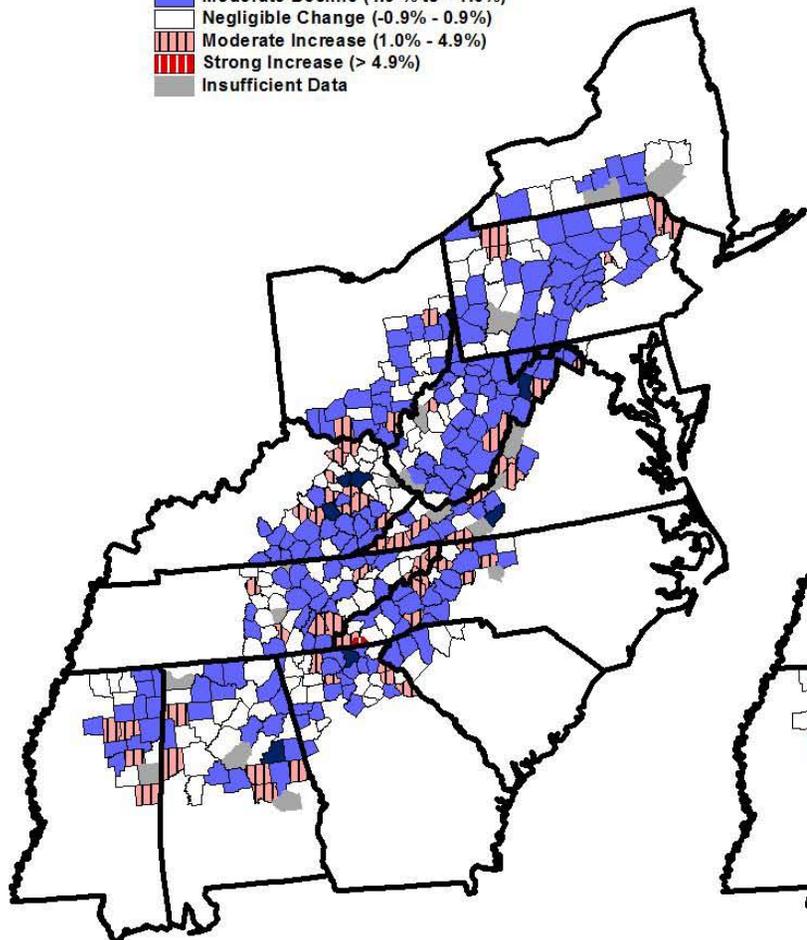
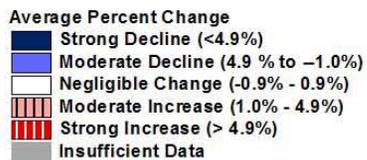


White Men Ages 65 and Older

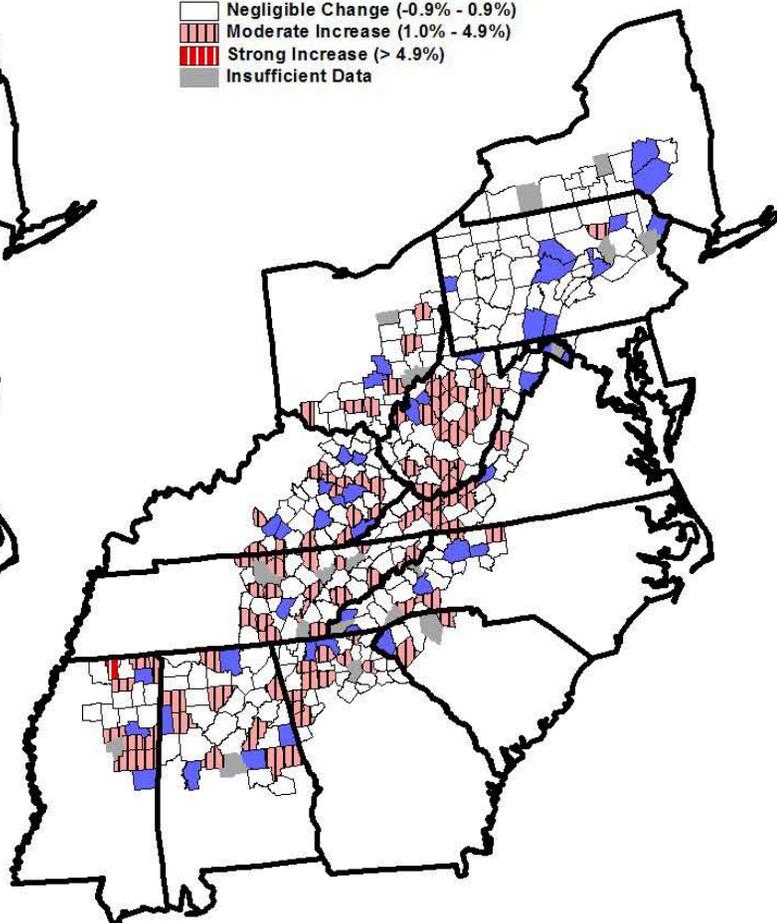


Trends in All Cause Mortality, 1985-1997

White Women Ages 35 to 64

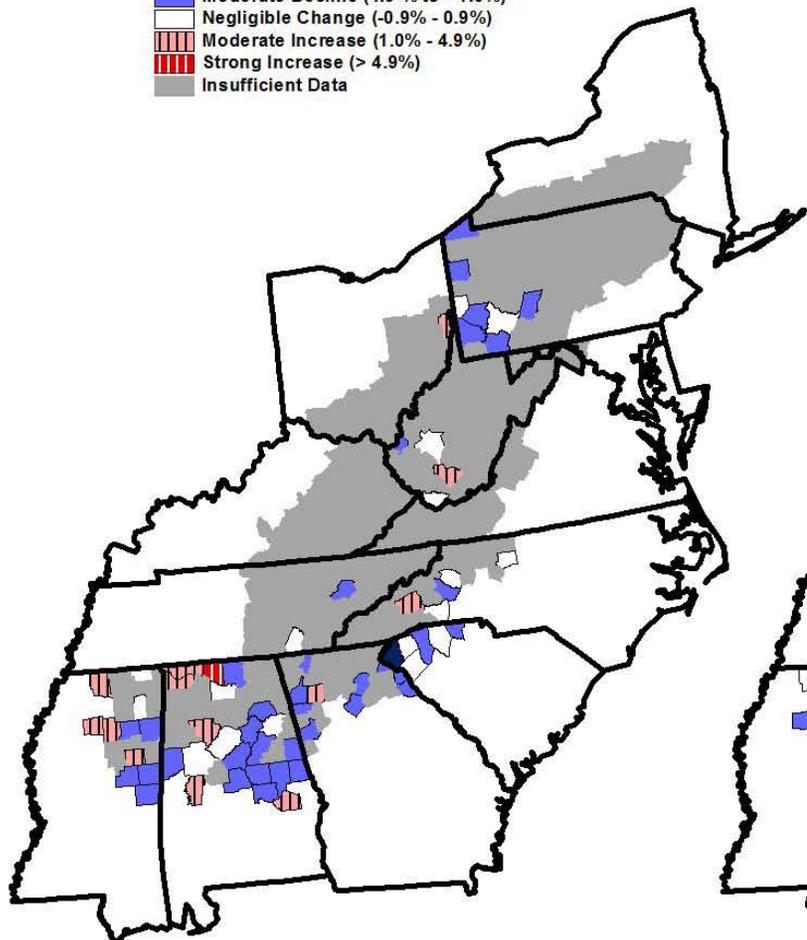
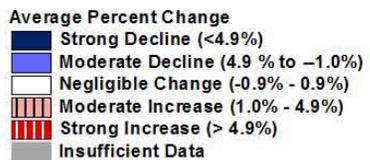


White Women Ages 65 and Older

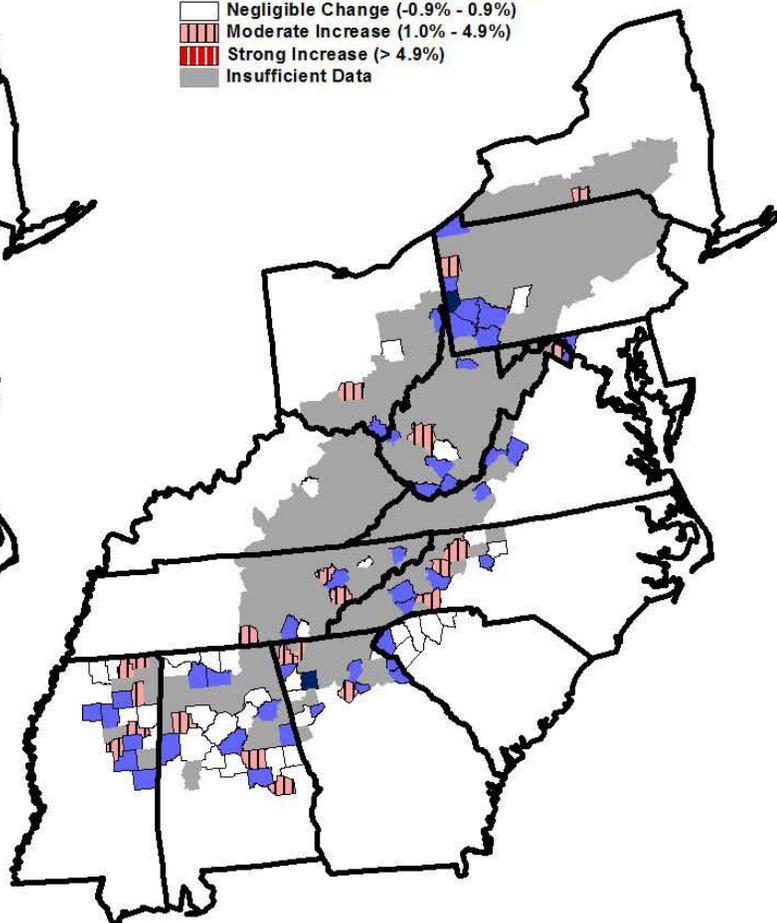


Trends in All Cause Mortality, 1985-1997

Black Men Ages 35 to 64

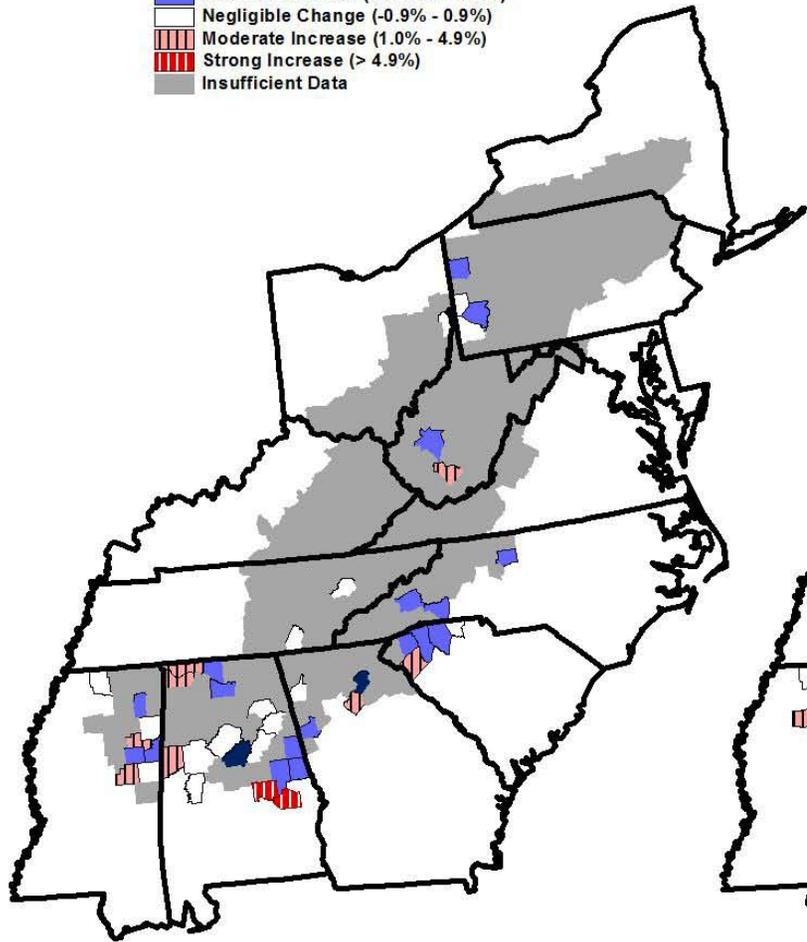


Black Men Ages 65 and Older



Trends in All Cause Mortality, 1985-1997

Black Women Ages 35 to 64



Black Women Ages 65 and Older

