### III. A.2 Premature Heart Disease Mortality

Patterns of premature heart disease mortality suggest a steeper east-west gradient than exists for all-cause mortality (see Section II, Figure 4). High rates of premature heart disease mortality are clustered primarily in the Southeastern U.S. although high rates also occur prominently in the Appalachian region. The majority of Appalachian counties occur within the third and fourth quartiles of the national distribution of premature heart disease mortality rates.

Statistically significant associations between socioeconomic indicators and premature heart disease mortality are consistently found among counties in the Southeastern (including Southern Appalachia), Central Appalachian, and Western regions of the country (see Figures 15-19). The appearance of statistical associations between socioeconomic conditions and premature heart disease mortality in Central Appalachian, and the lack of comparable associations for all-cause mortality, highlight the need to examine disease specific associations.

Similar to the patterns of association shown for all-cause mortality, the patterns of association for premature heart disease mortality reflect the steep east-west gradient. Counties in the Southeast and Central Appalachian region demonstrate the expected direction of association, with socioeconomically disadvantaged counties experiencing high rates of premature mortality. However, counties in the Western U.S. that share socioeconomic characteristics found in the Southeast and Central Appalachian, do not experience comparable rates of mortality, with a notable exception in Southern Nevada.

High poverty, unemployment, and percentages of persons without health insurance, and low incomes are particularly prevalent among counties in the Southeast and Central Appalachia showing positive association with premature heart disease mortality.

Figure 15. National Associations between Premature Heart Disease Mortality and Percent Urban Population.

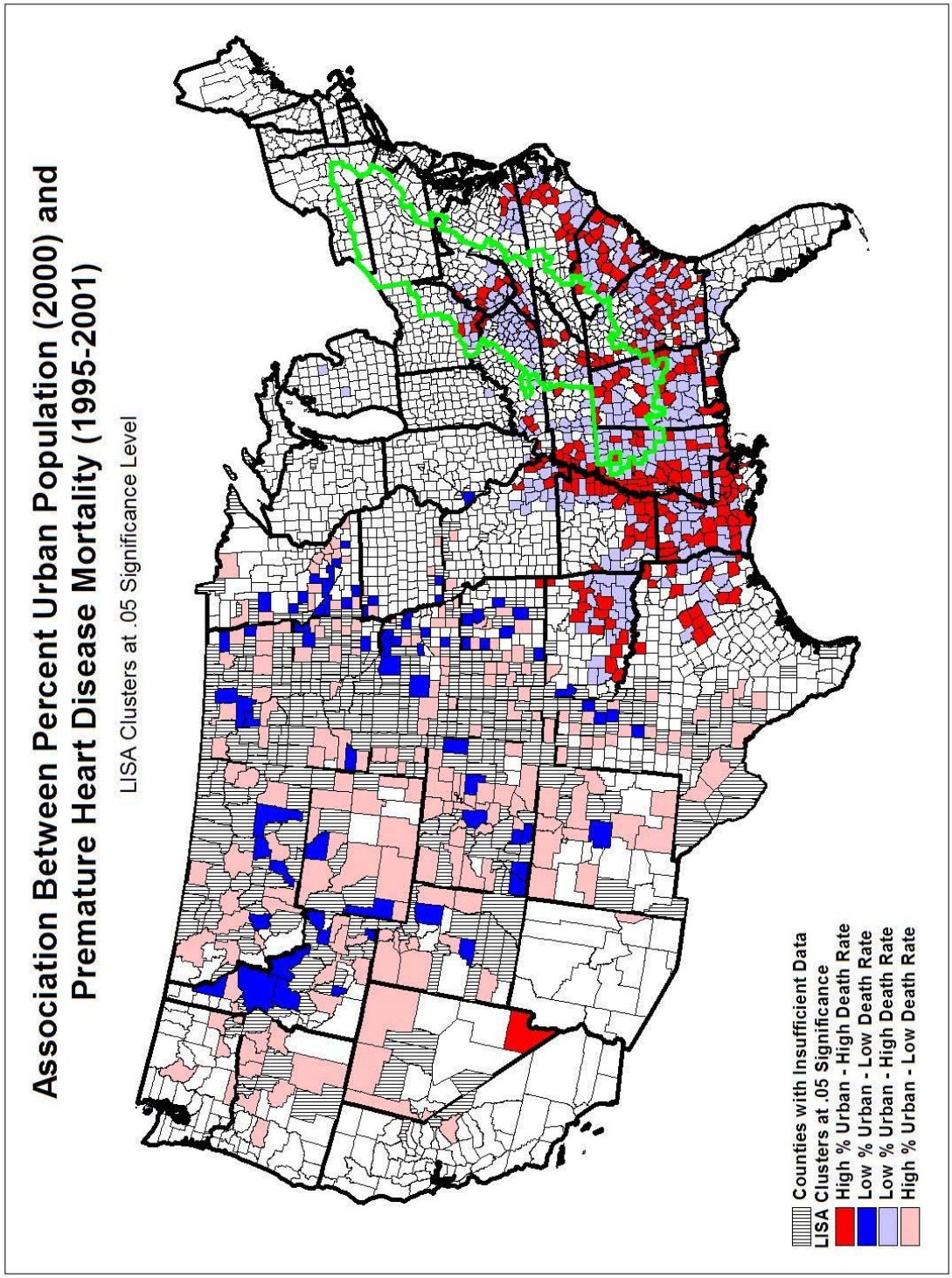

Figure 16. National Associations between Premature Heart Disease Mortality and Median Family Income.

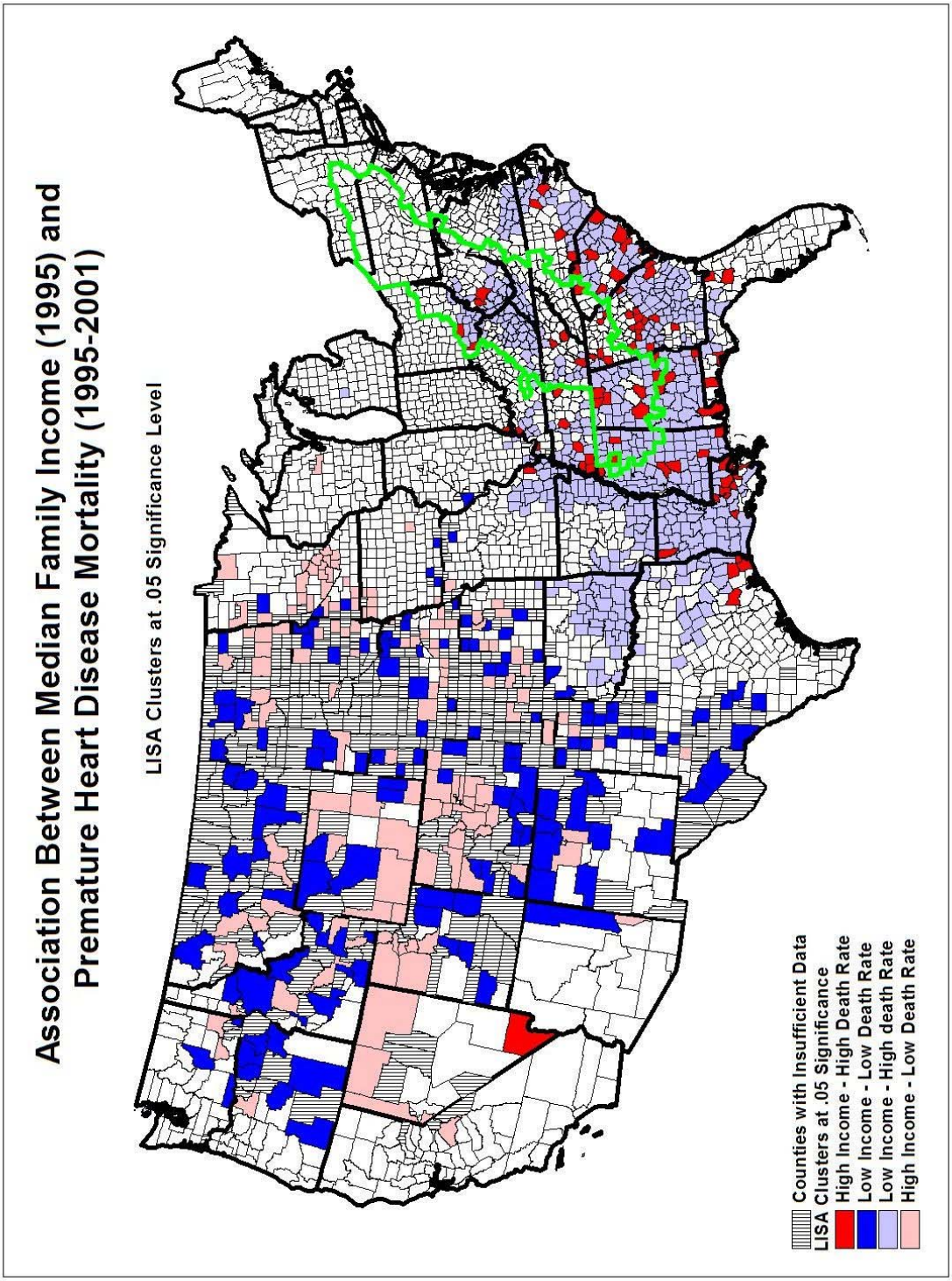

Figure 17. National Associations between Premature Heart Disease Mortality and Poverty Rate.

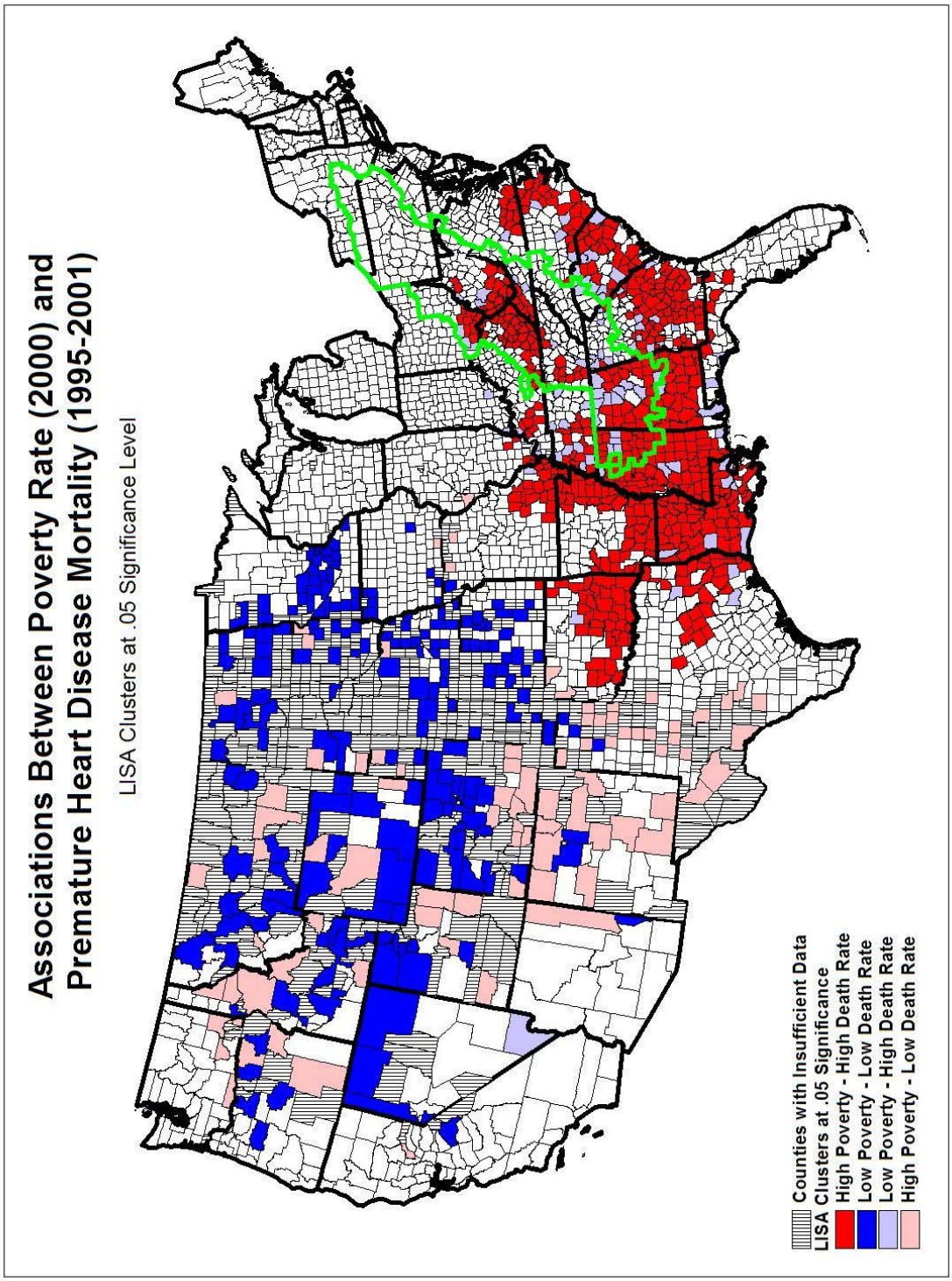

Figure 18. National Associations between Premature Heart Disease Mortality and the Unemployment Rate.

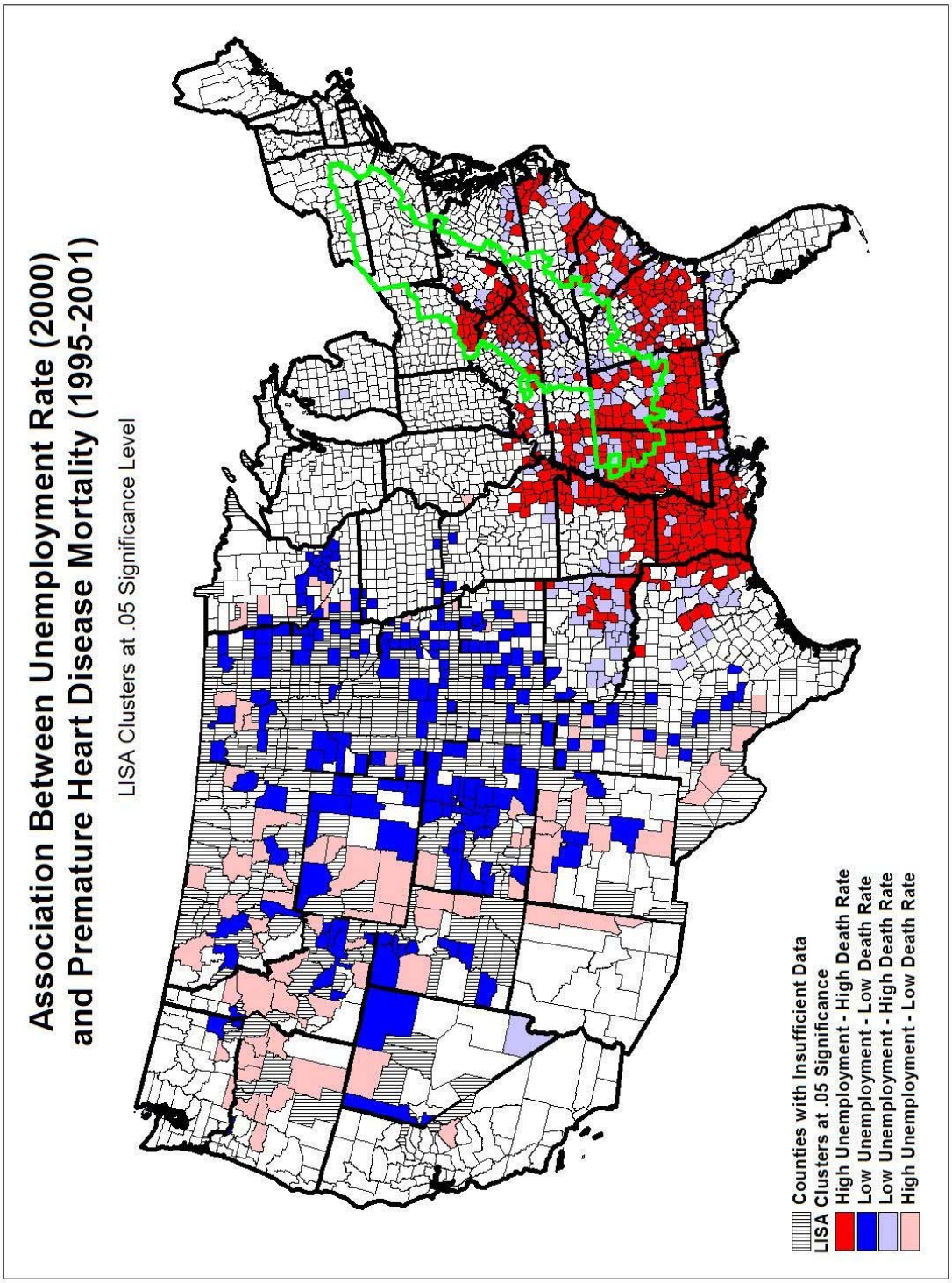
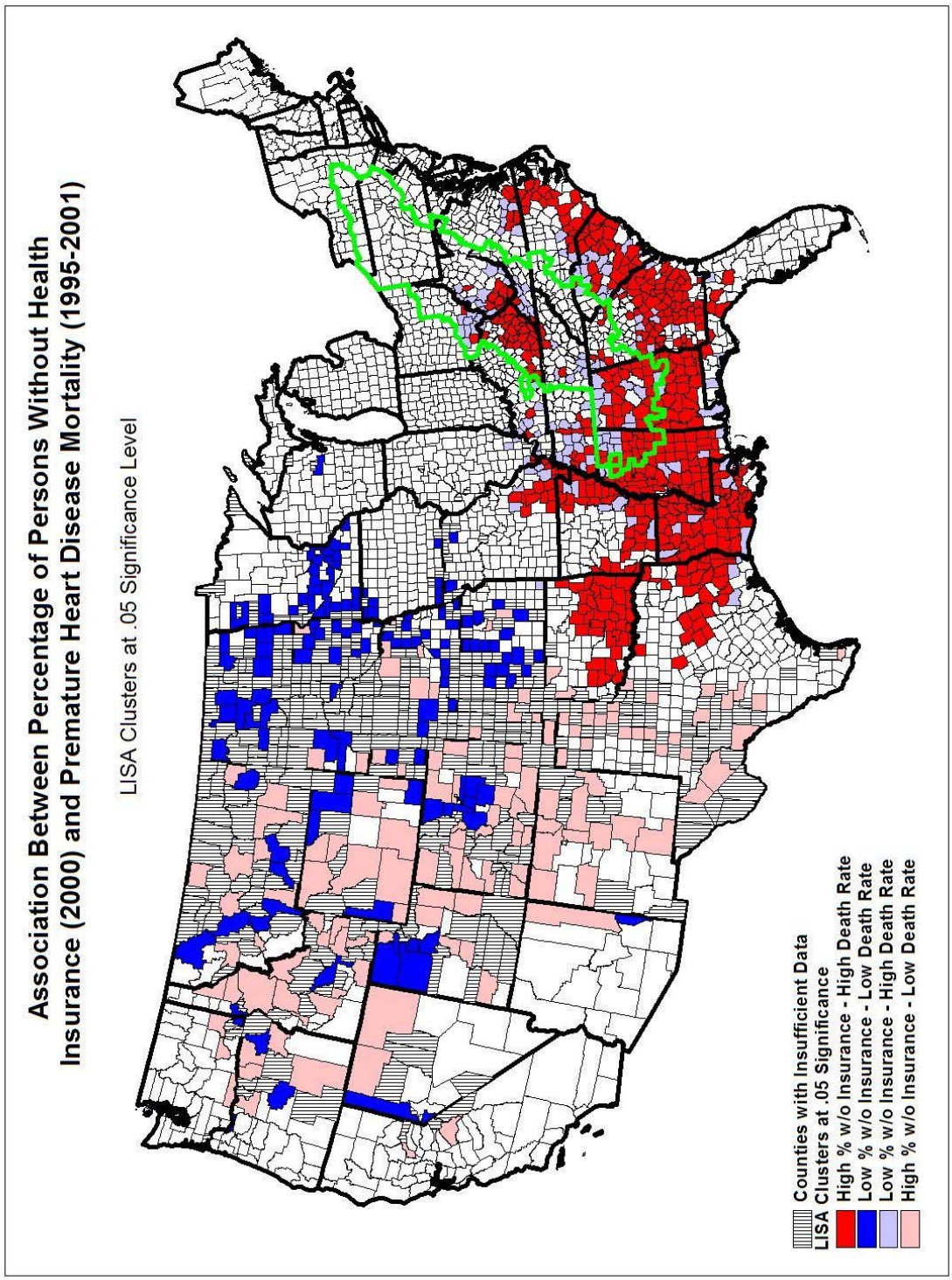
Figure 19. National Associations between Premature Heart Disease Mortality and the Percentage of Persons without Health Insurance.