III. A.4 Premature Stroke Mortality

National patterns of premature stroke mortality are consistent with the pattern of stroke mortality for all age-groups with a concentration of high rate counties in the Southeastern U.S. (see Section II, Figure 8). The persistent pattern of high stroke death rates is the Southeast has led to this region being dubbed the 'Stroke Belt'. Within Appalachia, high rates of premature mortality cluster primarily among counties in the Southern part of the region with a relatively small cluster of high rate counties in the Central Appalachian region. Areas with extremely high rates of premature stroke mortality, identified by 'high-outliers', are prominent in the Mississippi Delta region and among counties in states along the Atlantic coast.

The method used to derive associations between socioeconomic conditions and premature mortality is based on 'unsmoothed' rates (Section I) as opposed to the smoothed rates used in Section II. Nationally premature stroke mortality is rare and, although smoothing increases in the ability to generate rate estimates for a greater number of counties, estimates for unsmoothed rates are sparse. Therefore the ability to derive local associations between premature stroke mortality and socioeconomic conditions is primarily limited to regions of the country that experience a higher number of premature stroke deaths.

Statistically significant associations between socioeconomic indicators and premature stroke mortality are limited primarily to Southeastern states, including areas of the Mississippi Delta, the Carolinas, and in Southern Appalachia among counties in North central Alabama and Northwestern Georgia (see Figures 25-29).

The significant associations with high poverty, unemployment, and low incomes appear less consistently than were apparent of premature heart disease and cancer mortality in these regions. However there does appear to be a fairly consistent association between premature stroke mortality and the percentage of persons without health insurance and may reflect the importance of primary care and prevention to reduce the risk of stroke mortality in these areas.

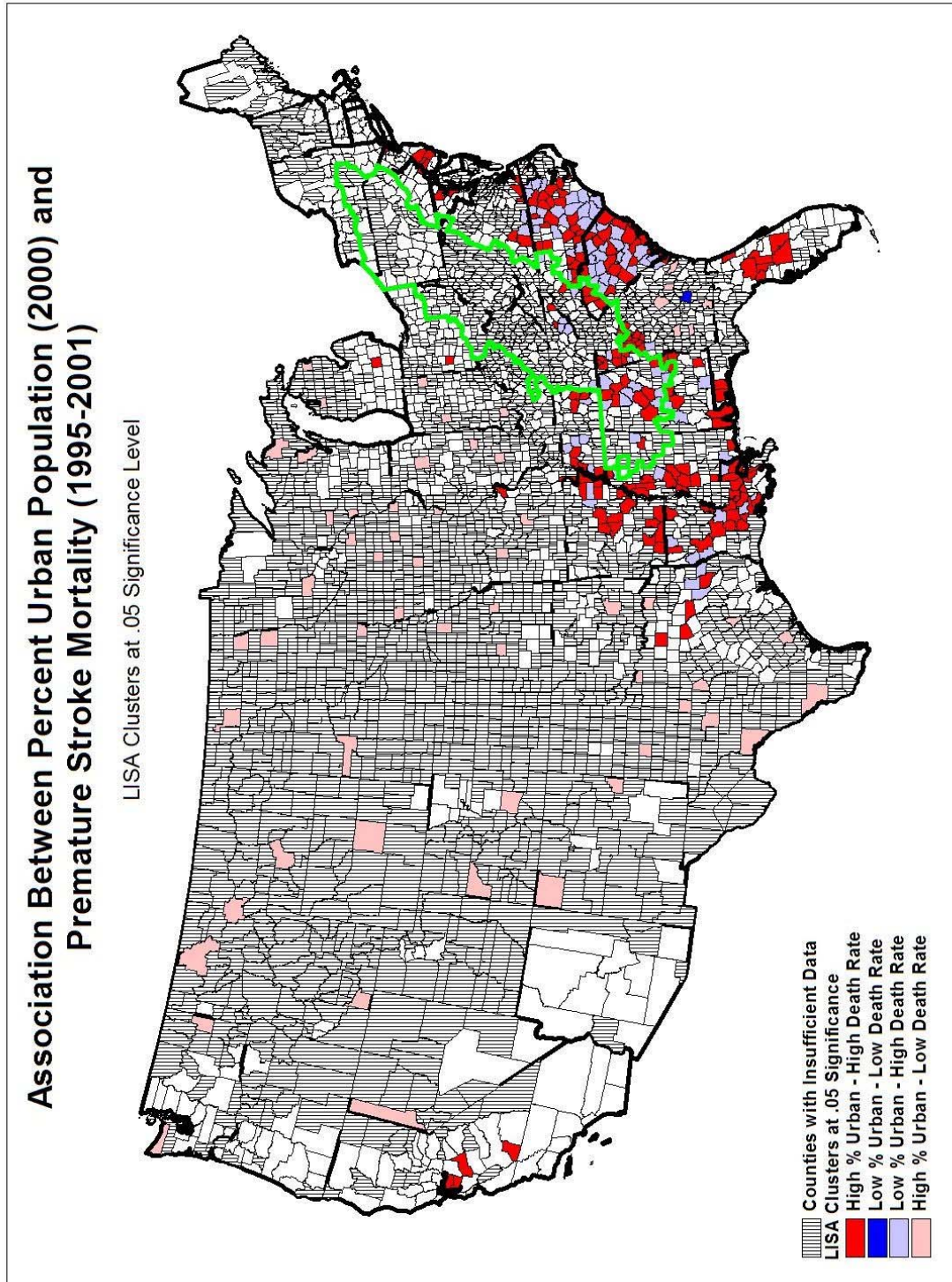Figure 25. National Associations between Premature Stroke Mortality and Percent Urban Population.

Figure 26. National Associations between Premature Stroke Mortality and Median Family Income.
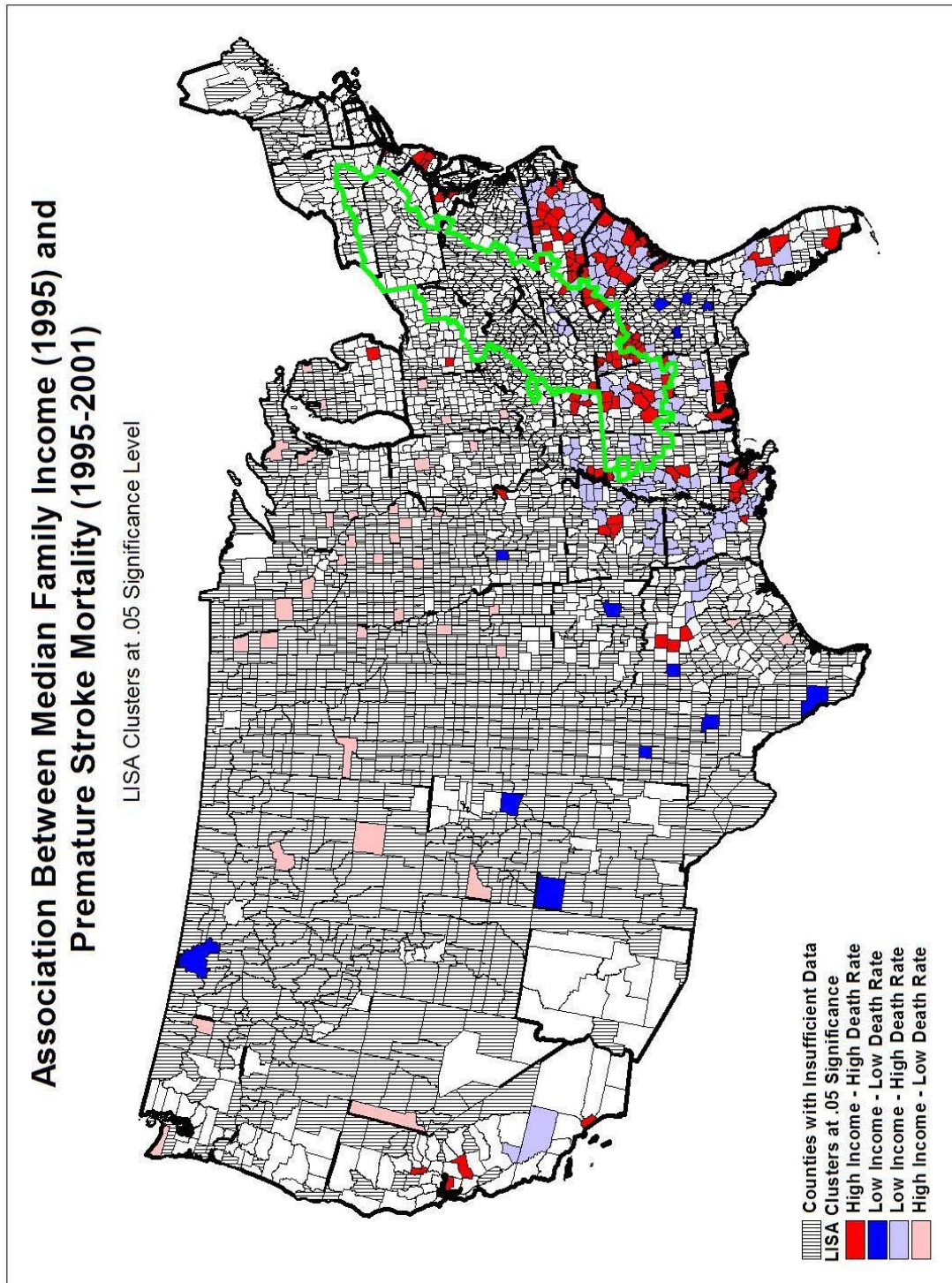
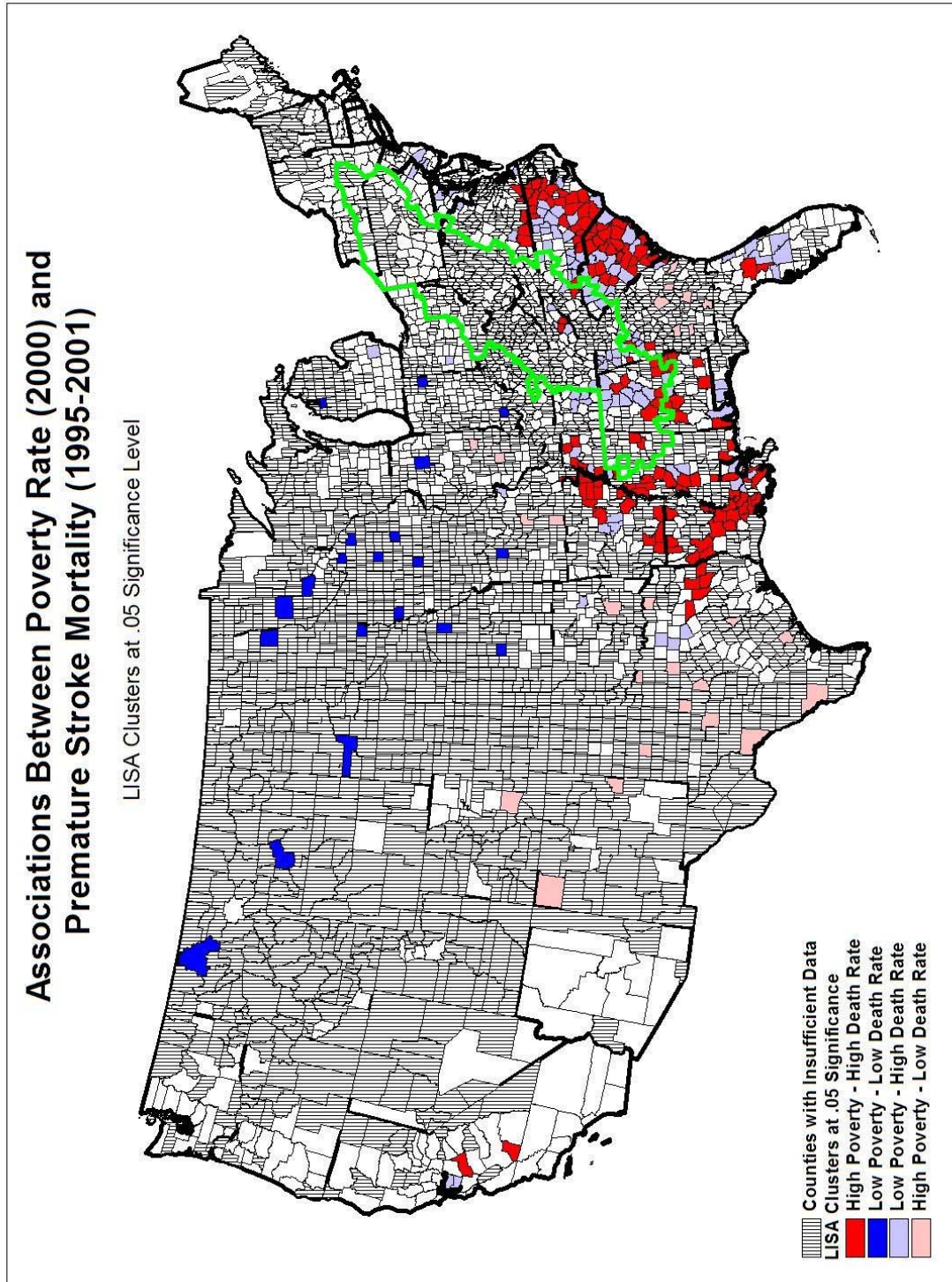Figure 27. National Associations between Premature Stroke Mortality and the Poverty Rate.

Figure 28. National Associations between Premature Stroke Mortality and the
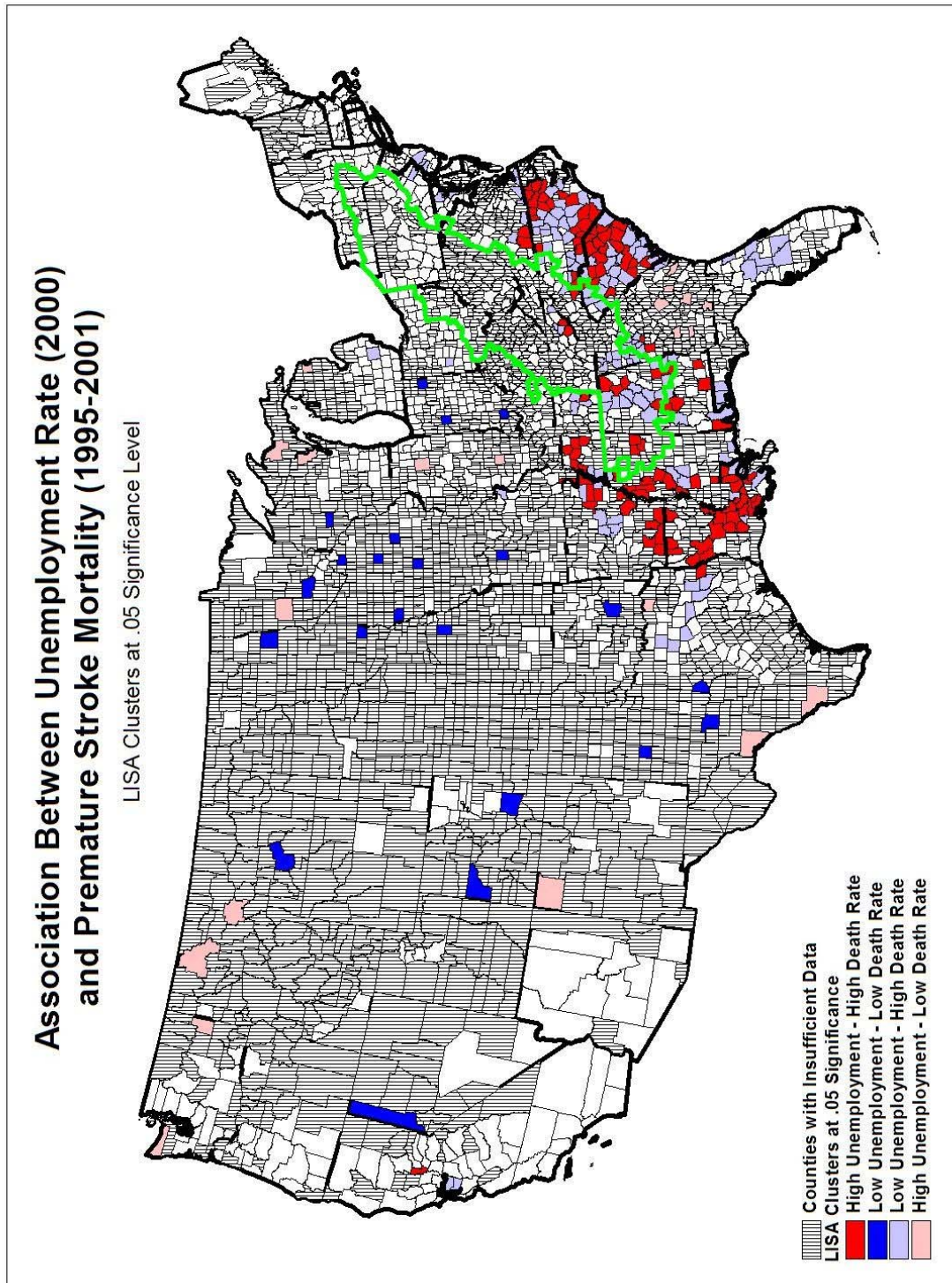Unemployment Rate.

Figure 29. National Associations between Premature Stroke Mortality and the Percentage of Persons without Health Insurance.