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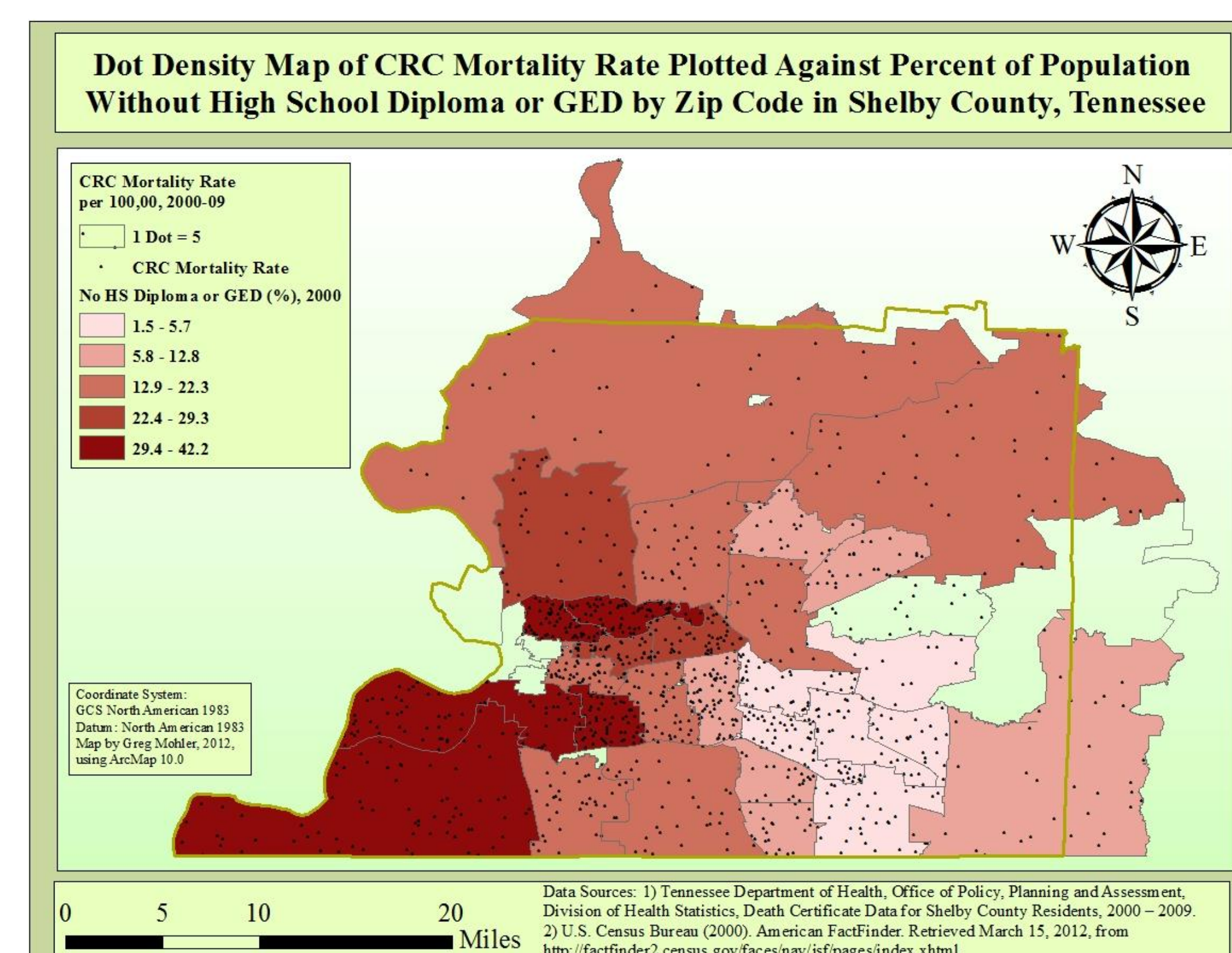
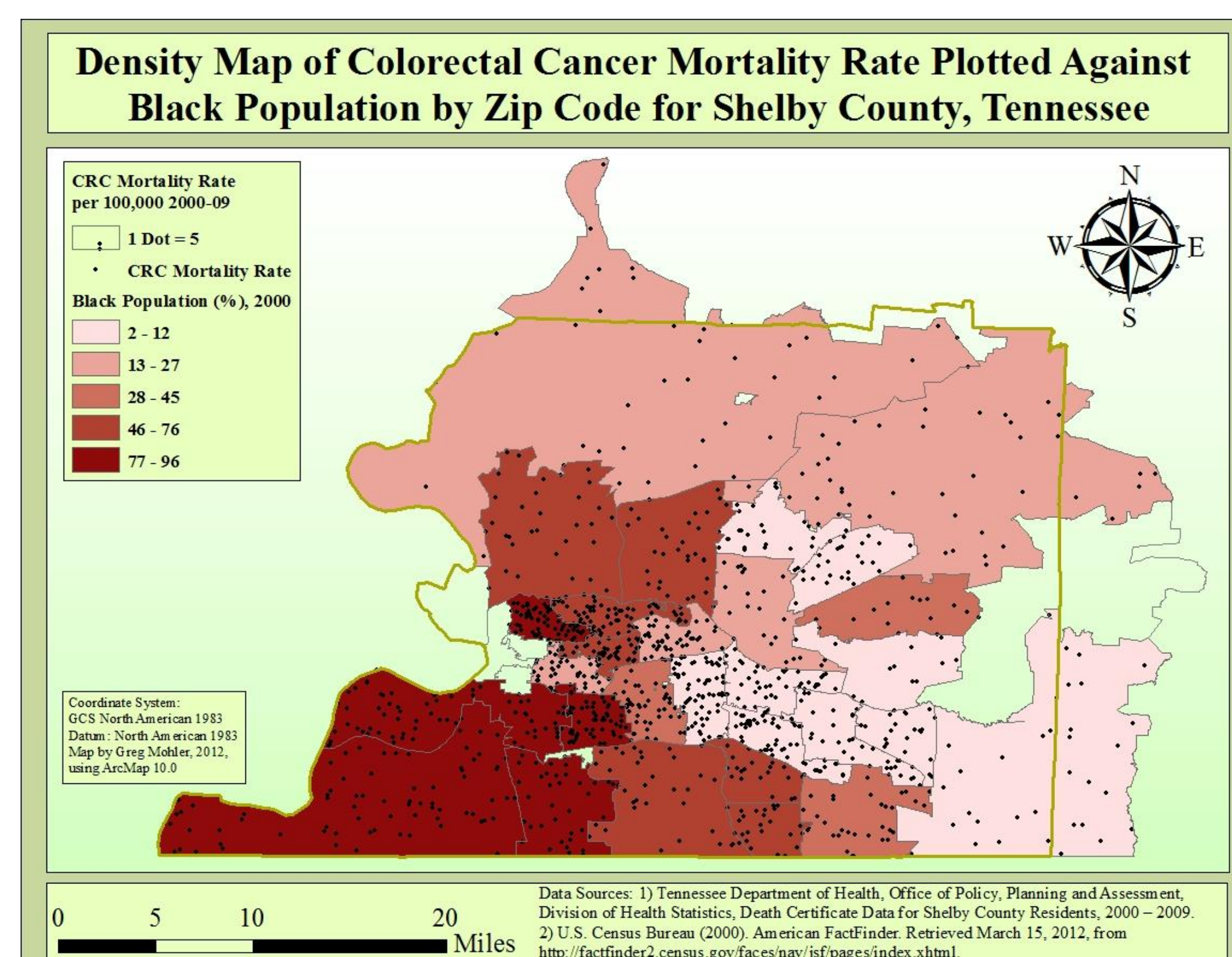
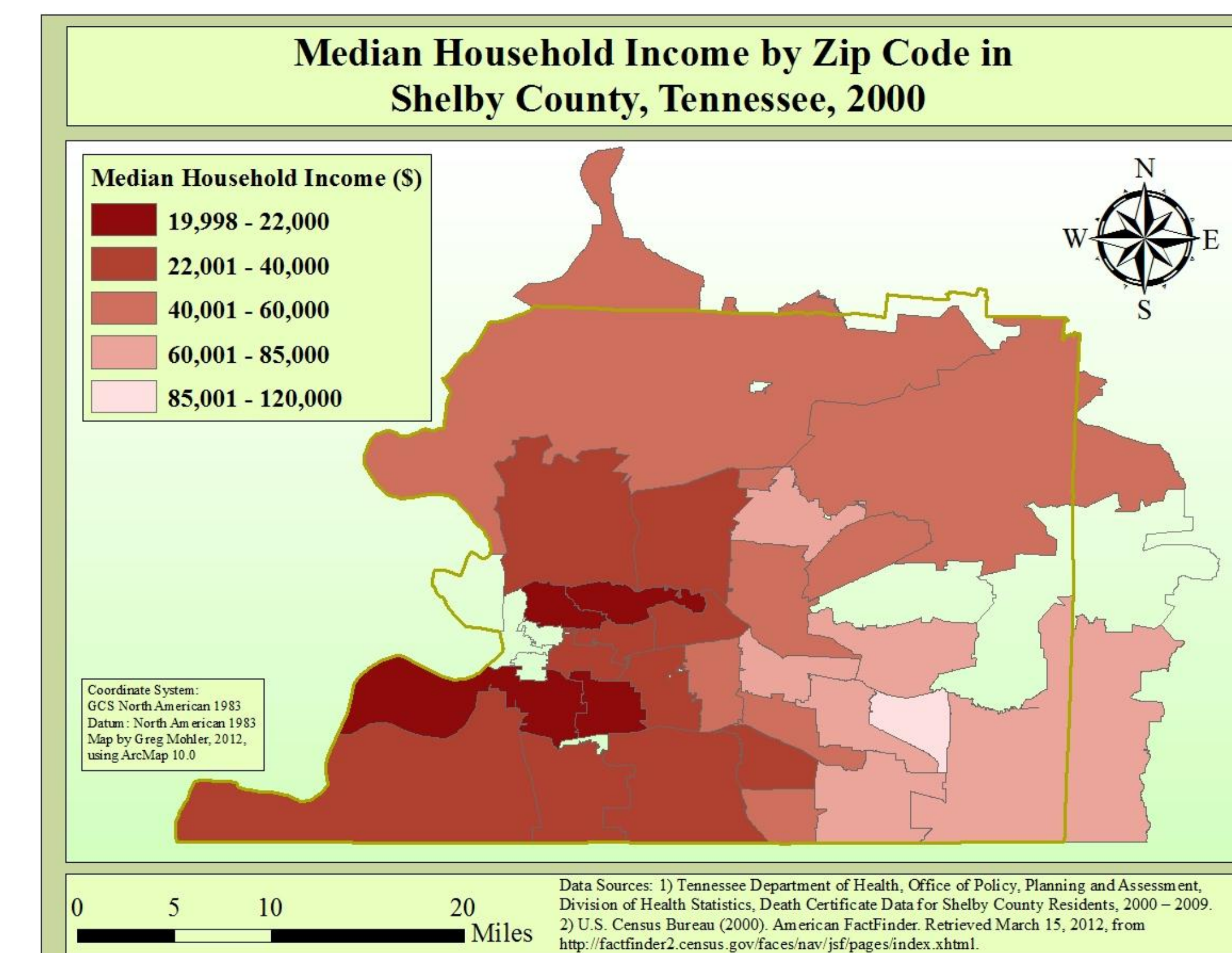
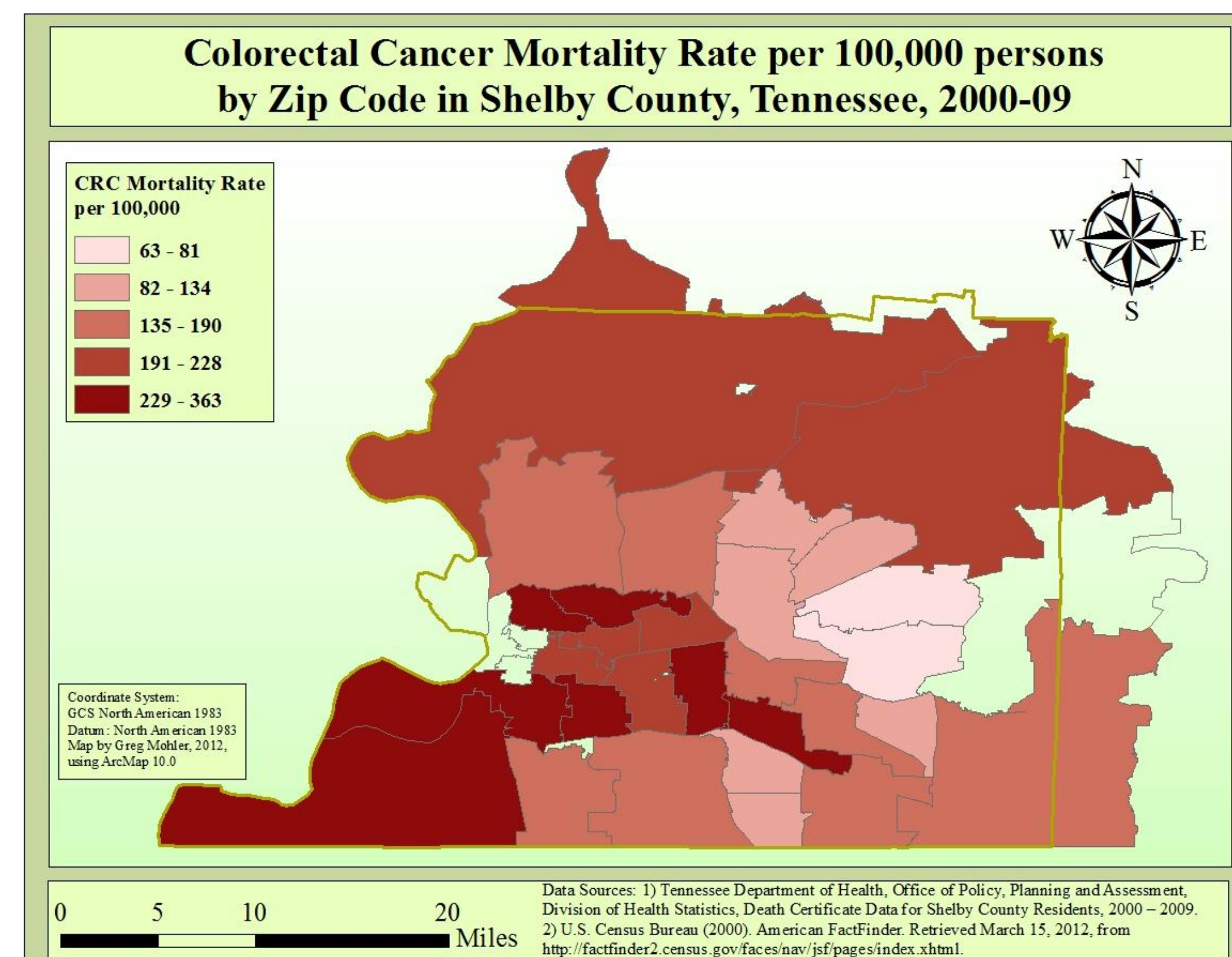
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BACKGROUND

Colorectal Cancer (CRC) is the third leading cause of cancer-related deaths among men and women in the United States. Although CRC mortality rates are on the decline nationally, Southern states still struggle with CRC related mortality. In addition to regional disparities, demographic factors such as age, race, gender, education, and socioeconomic status have been found to have strong correlations with CRC's stage at presentation, higher incidence and mortality rates. Epidemiological data from Tennessee resembles the national trends in mortality disparities resulting from CRC. For the five year period, 1999-2003, the mortality rates for CRC in Tennessee were 32.8 per 100,000 for African Americans and 19.3 for whites.

METHODS

Using GIS mapping, we examined CRC mortality data for the Shelby County, Tennessee to illustrate disparity among various zip codes based on race, median income, and education.



DISCUSSION

For the five year period, 2005-2009, the mortality rates for CRC in Shelby County were 54.4 for African Americans and 44.4 for Whites. GIS maps in this poster demonstrates that zip codes with the highest CRC mortality rates had higher African American populations, lower median household incomes, and lower levels of education when visually compared to zip codes with lower CRC mortality rates. These results are consistent with findings on the disparities found in CRC mortality rates in the literature.

CONCLUSION

- GIS Mapping can provide public health practitioners with a visual tool for developing and disseminating targeted CRC interventions to areas demonstrating highest mortality rates and/or highest disparities.
- GIS Mapping may act as a preliminary step in developing more sophisticated statistical approaches for understanding the factors associated with the disparities found in CRC mortality rates.
- Results may indicate the need for both policy and behavioral level interventions to address CRC mortality rates.