

# Rural Health Facts...



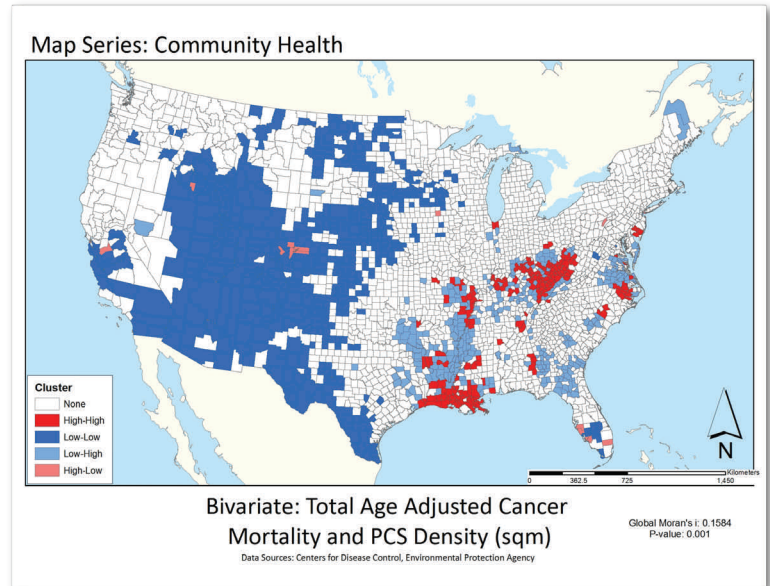
## Pollution Sources and Cancer Mortality Rates across Rural-Urban Areas in the United States

### Summary

Rural populations are potentially exposed to a variety of serious environmental risks from point and non-point pollution sources including industrial facilities, animal containment facilities, mining operations, agricultural activities, and others.

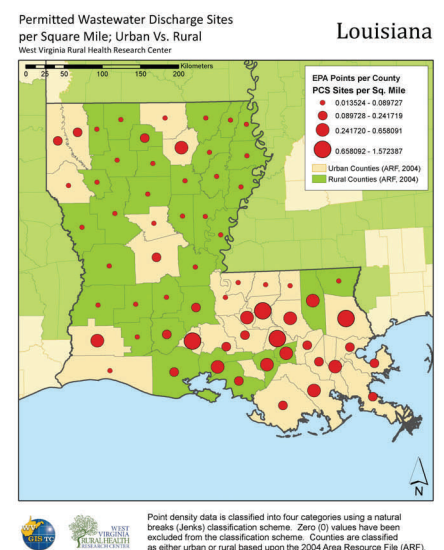
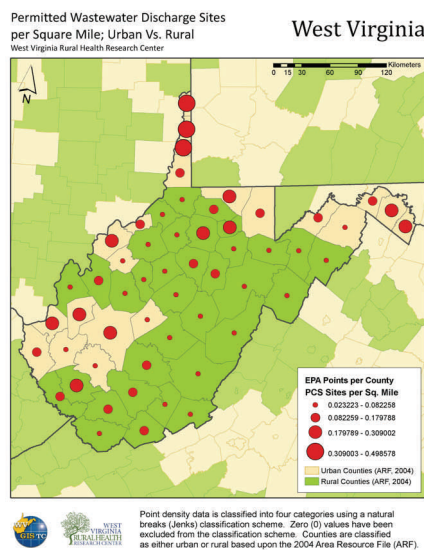
For this study, we focused on a variety of pollution sources and their relationship to CDC age-adjusted cancer mortality rates in rural and urban areas. We test the hypothesis that total cancer mortality rates adjusted for other factors will be related to pollution sources in rural areas. We also created state-level and national maps of pollution sources and mortality rates. Controlling for co-variables, greater density of air and water pollution sites was associated with higher cancer mortality.

Examples of maps are shown here. The national map shows areas where high cancer mortality-rates co-occur with higher concentrations of water pollution discharge sites.



### Conclusions

- Rural areas contain thousands of potential pollution sources.
- Both urban and rural settings show significant association between air and water pollution sources and higher cancer mortality.
- Rural counties with higher levels of human land development were associated with higher cancer mortality rates.
- Rural coal mining areas have elevated cancer mortality rates.
- Future research is needed to better understand the types of pollutants that may impact rural population health.



Maps & entire report will be available at:  
<http://wvrhrc.hsc.wvu.edu>

