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# Seeing is Believing: Patterns of Life Expectancy, Poverty, Equity & Health in Shelby County TN

Lilian Ogari and David Sweat

Office of Epidemiology

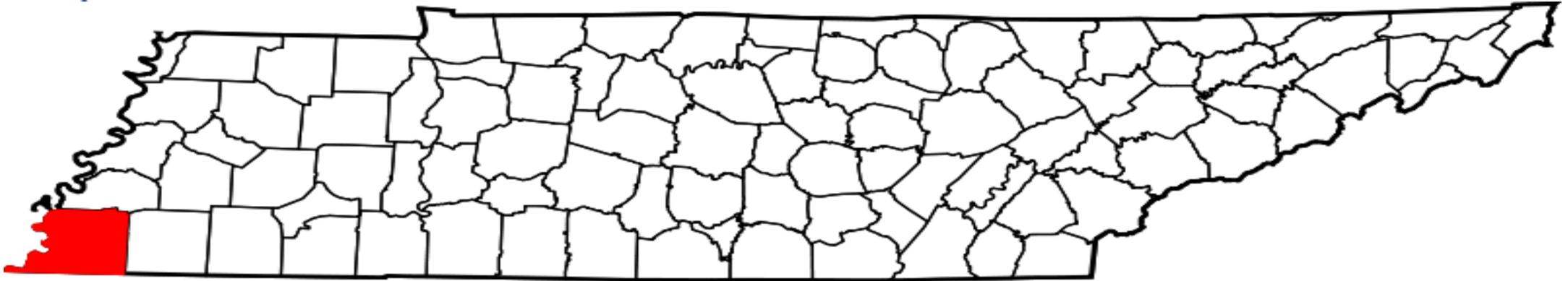
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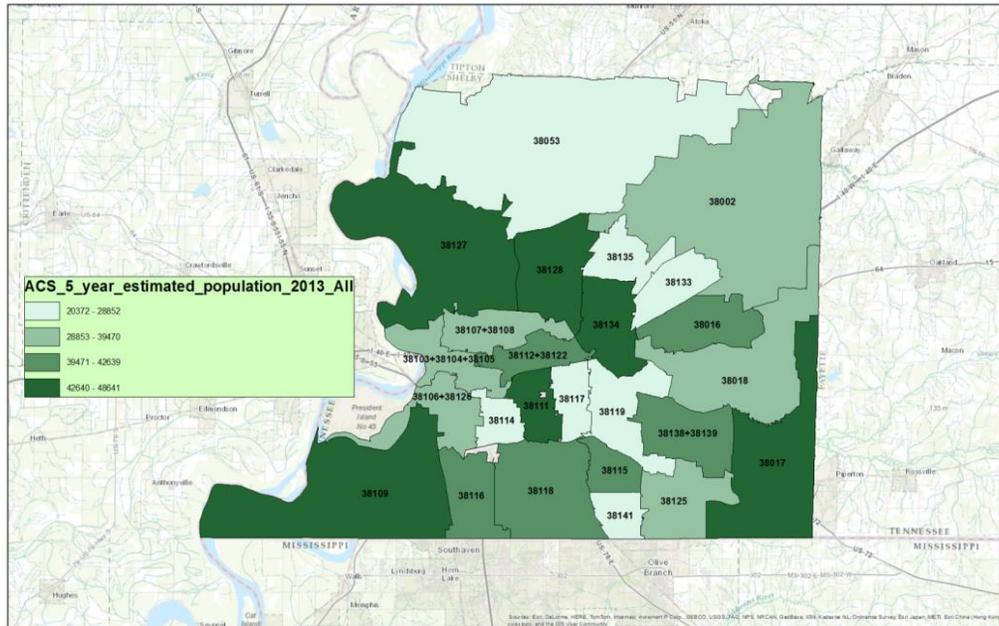
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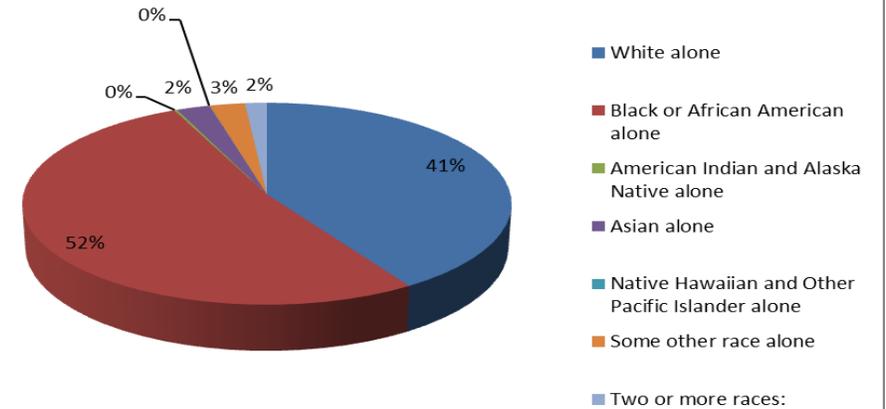
# ABOUT SHELBY COUNTY TN



Population Distribution in Shelby County TN, 2013



Race Distribution in Shelby County TN 2013





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# Quick Facts About Shelby County

- ❖ Shelby County's Population ~ 940,000.
- ❖ ~7500 people die in Shelby County each year.
- ❖ 33 Zip Codes in Shelby County
- ❖ Sub-County data analyzed at Zip Code Level due to DUA agreement with TDH
- ❖ ZCTA's and Zip Codes very similar geographically

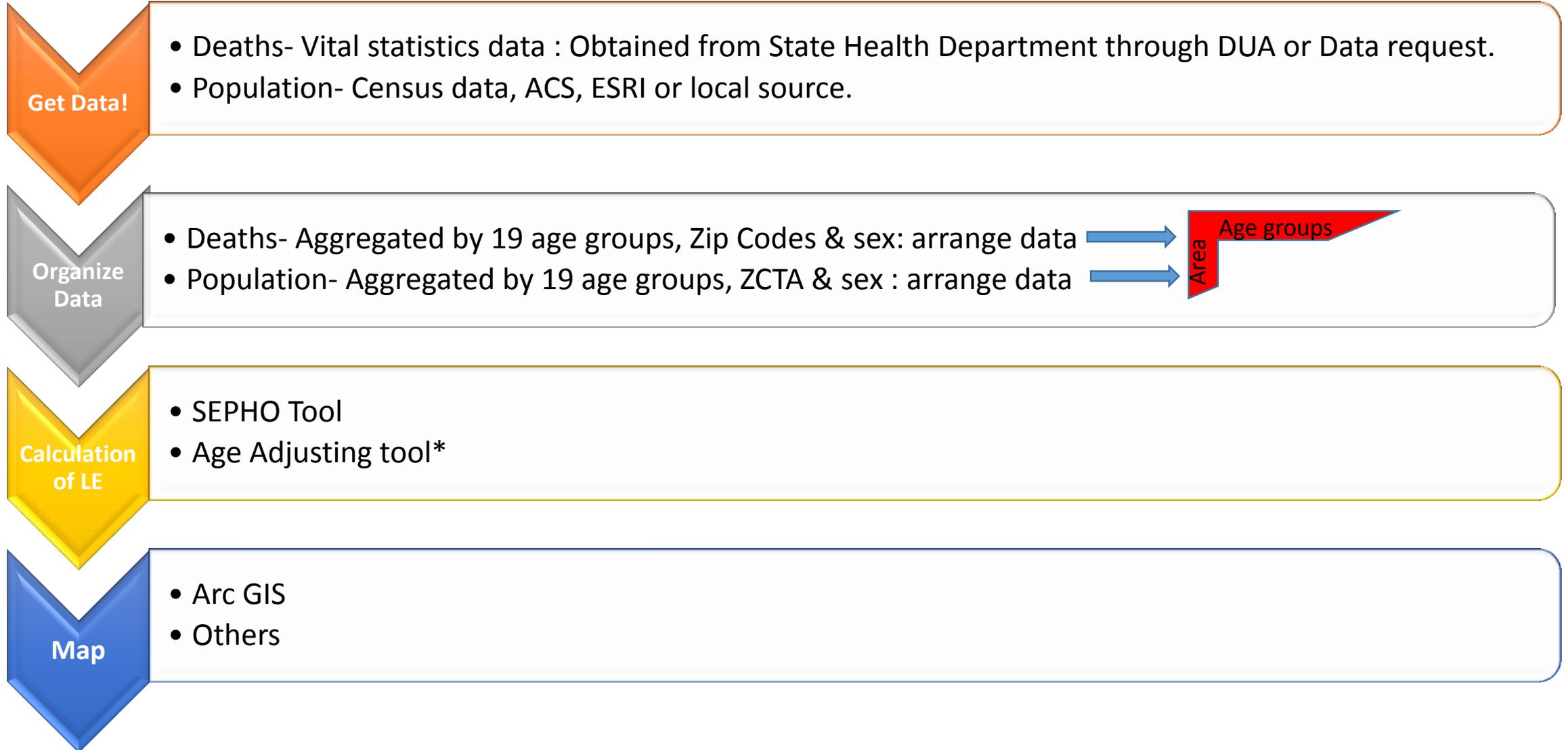


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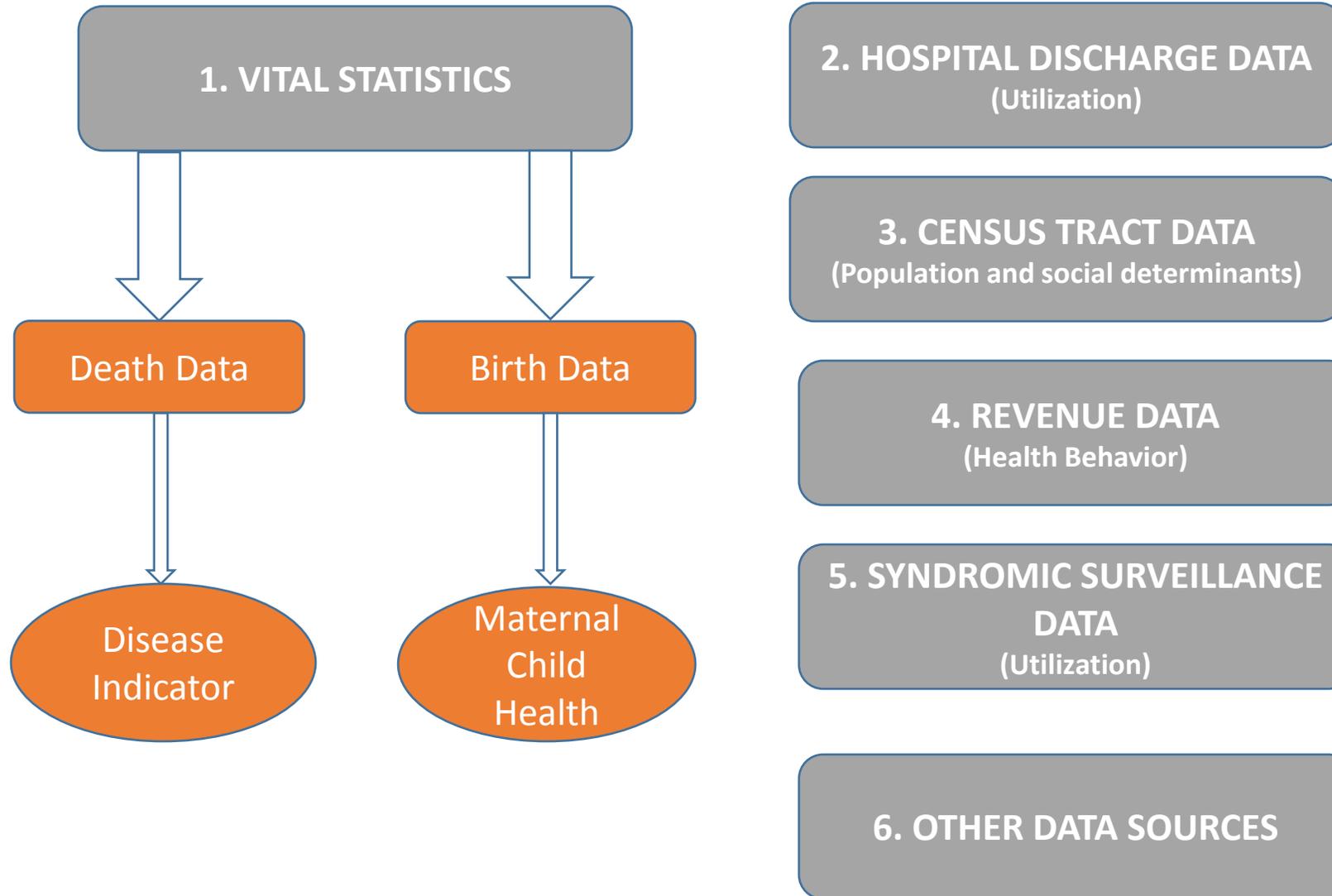
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# Calculating Life Expectancy

using Zip Code level Data.



# TARGET DATA SETS

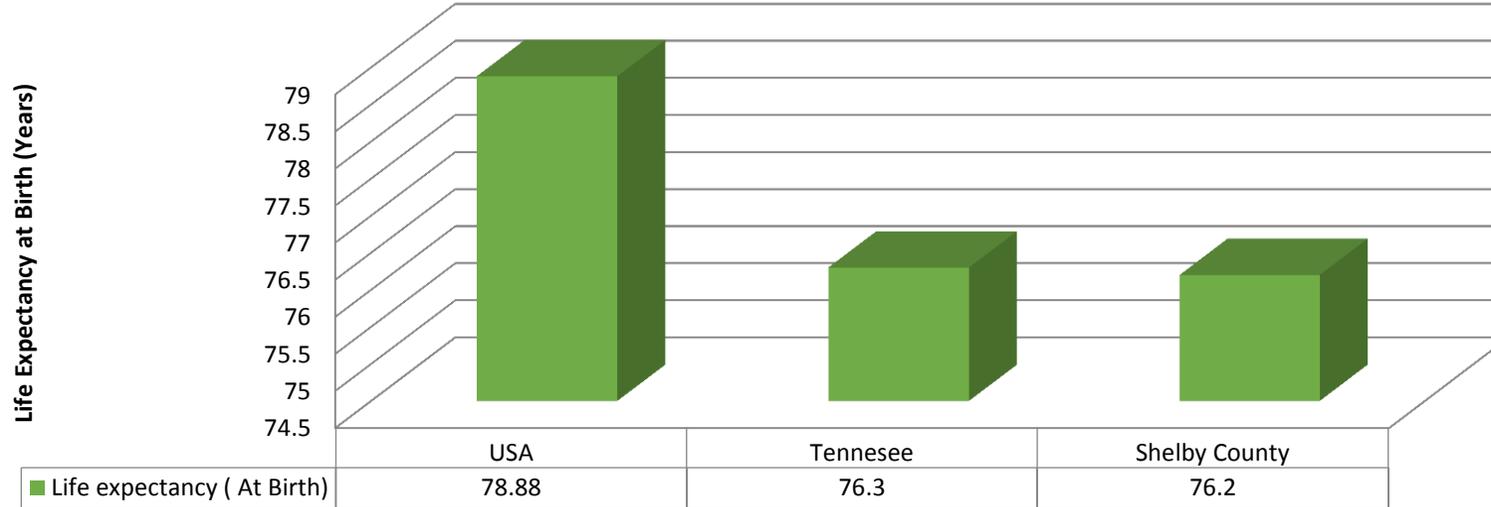




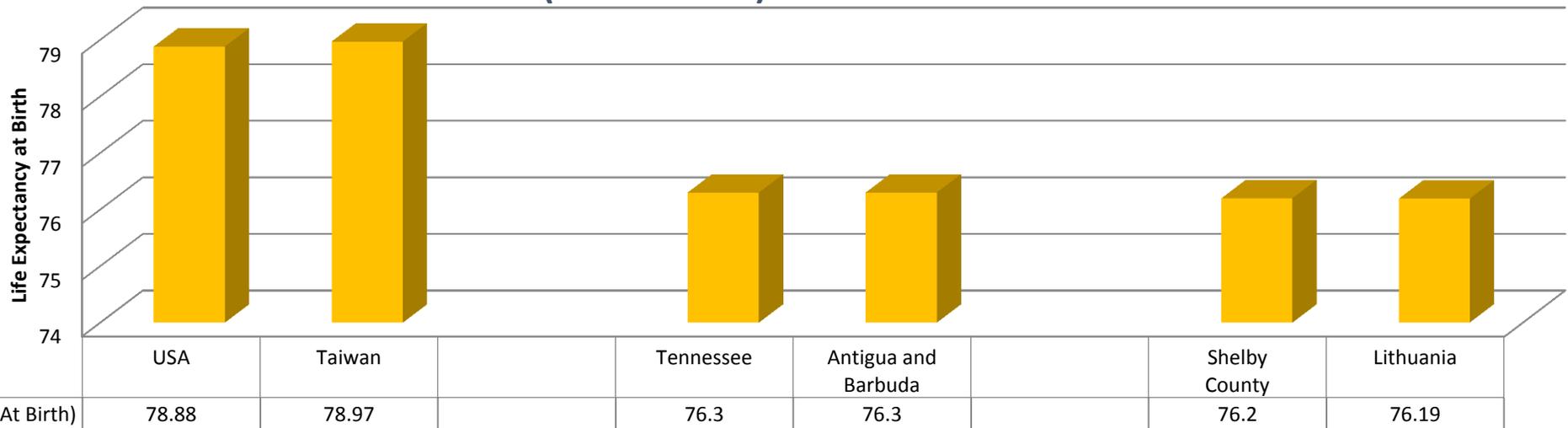
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### Comparison of LE 2013 (Country, State, County)



### Comparison of LE 2013 (US vs World)

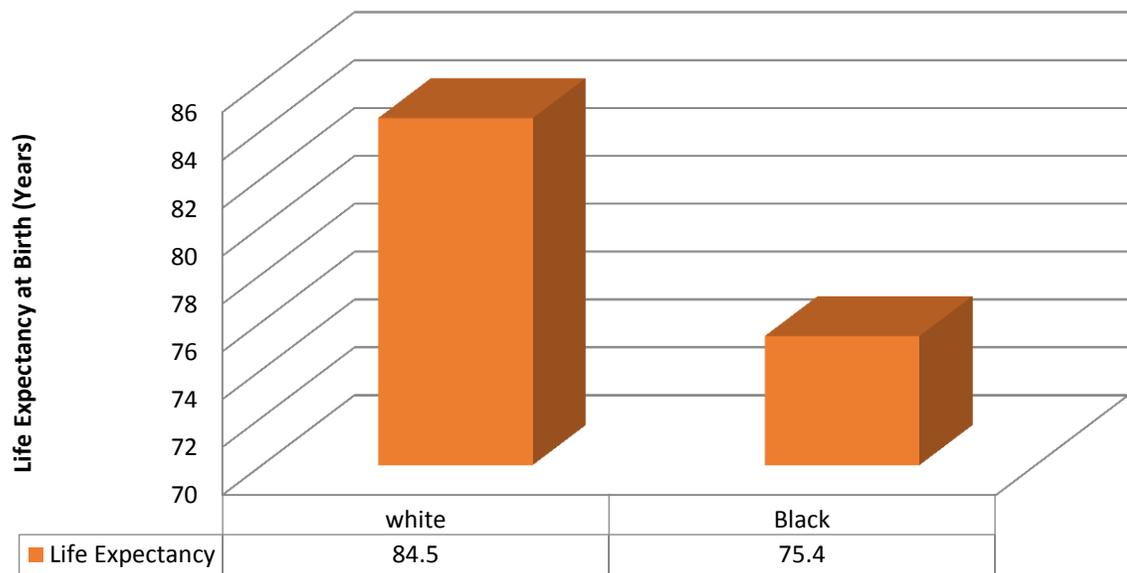


Data Source for World LE: [www.geoba.se](http://www.geoba.se)

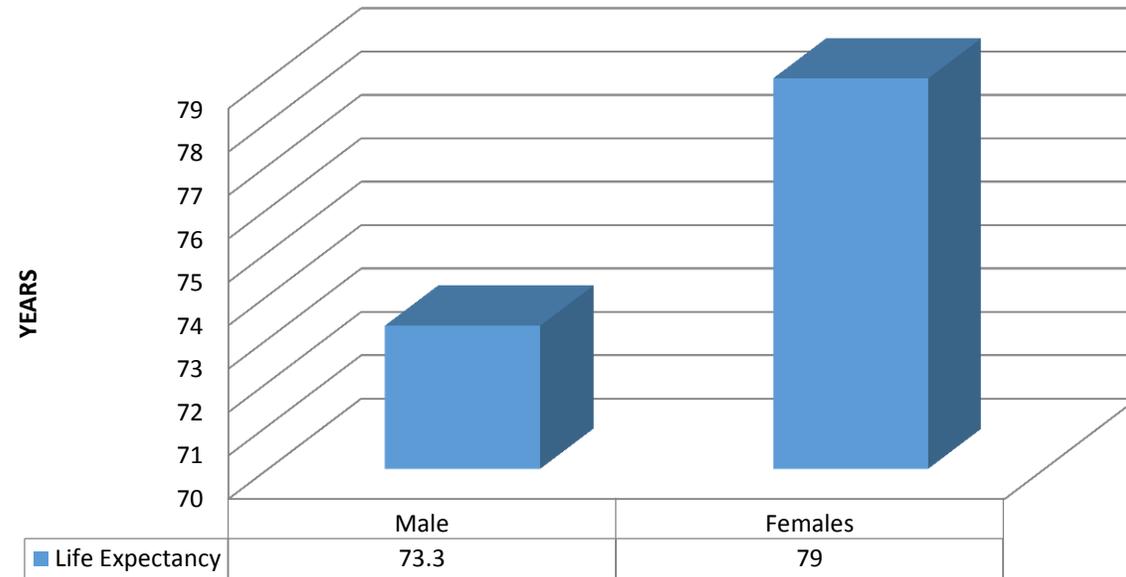
Data Source for USA and States: <http://kff.org/state-category/health-status/life-expectancy/>

Data Source for local LE: Office of Epidemiology and Infectious Diseases, Shelby County Health Department.

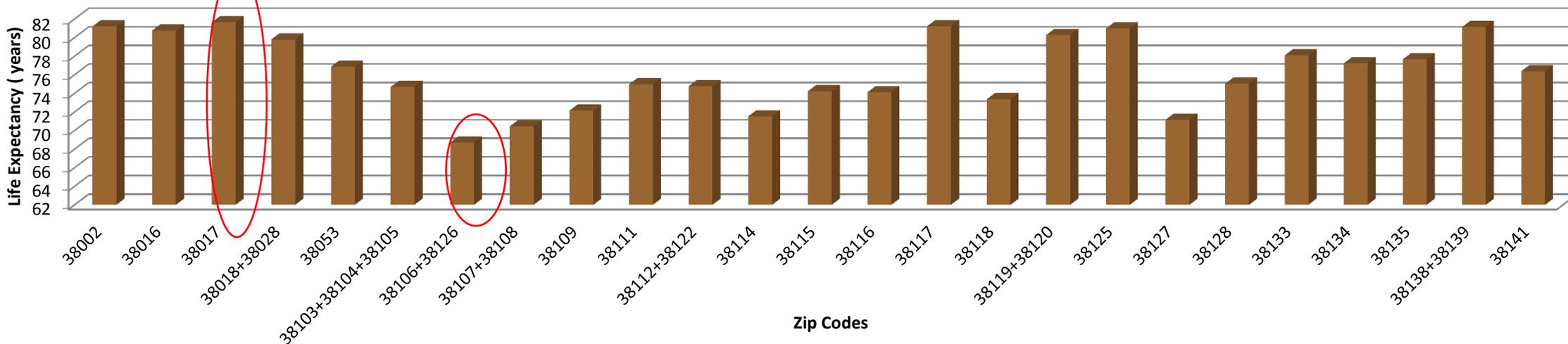
### Life Expectancy in Shelby County by Race



### Life Expectancy in Shelby County by Sex



### Life expectancy at Birth in Shelby County TN

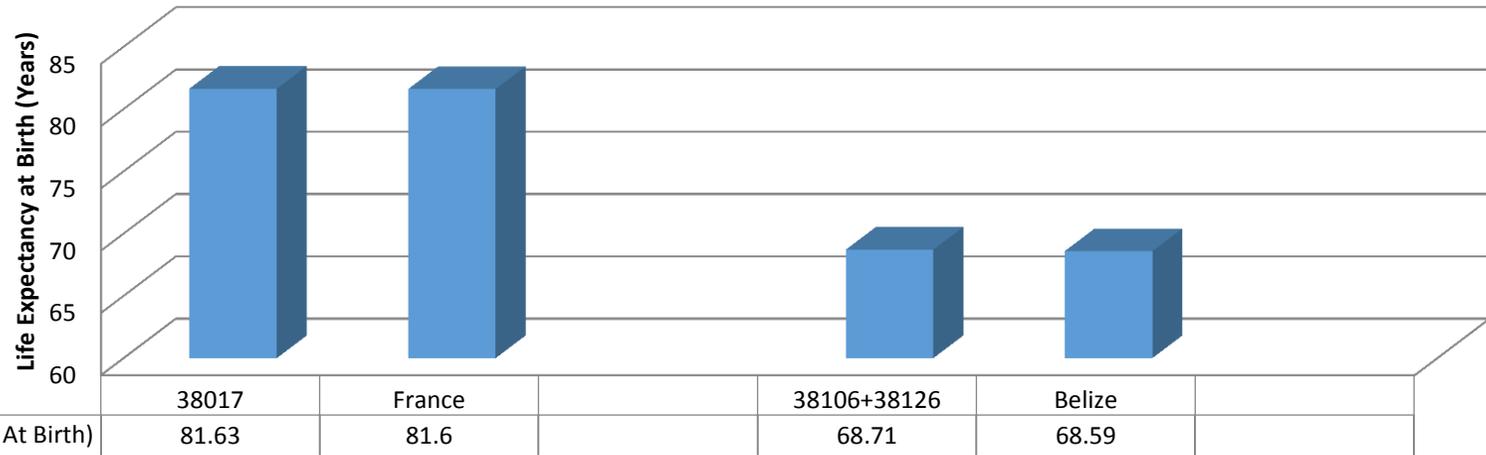




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### Comparison of LE (Shelby County Zip vs World)



■ Life expectancy ( At Birth)

Data Source for World LE: [www.geoba.se](http://www.geoba.se)

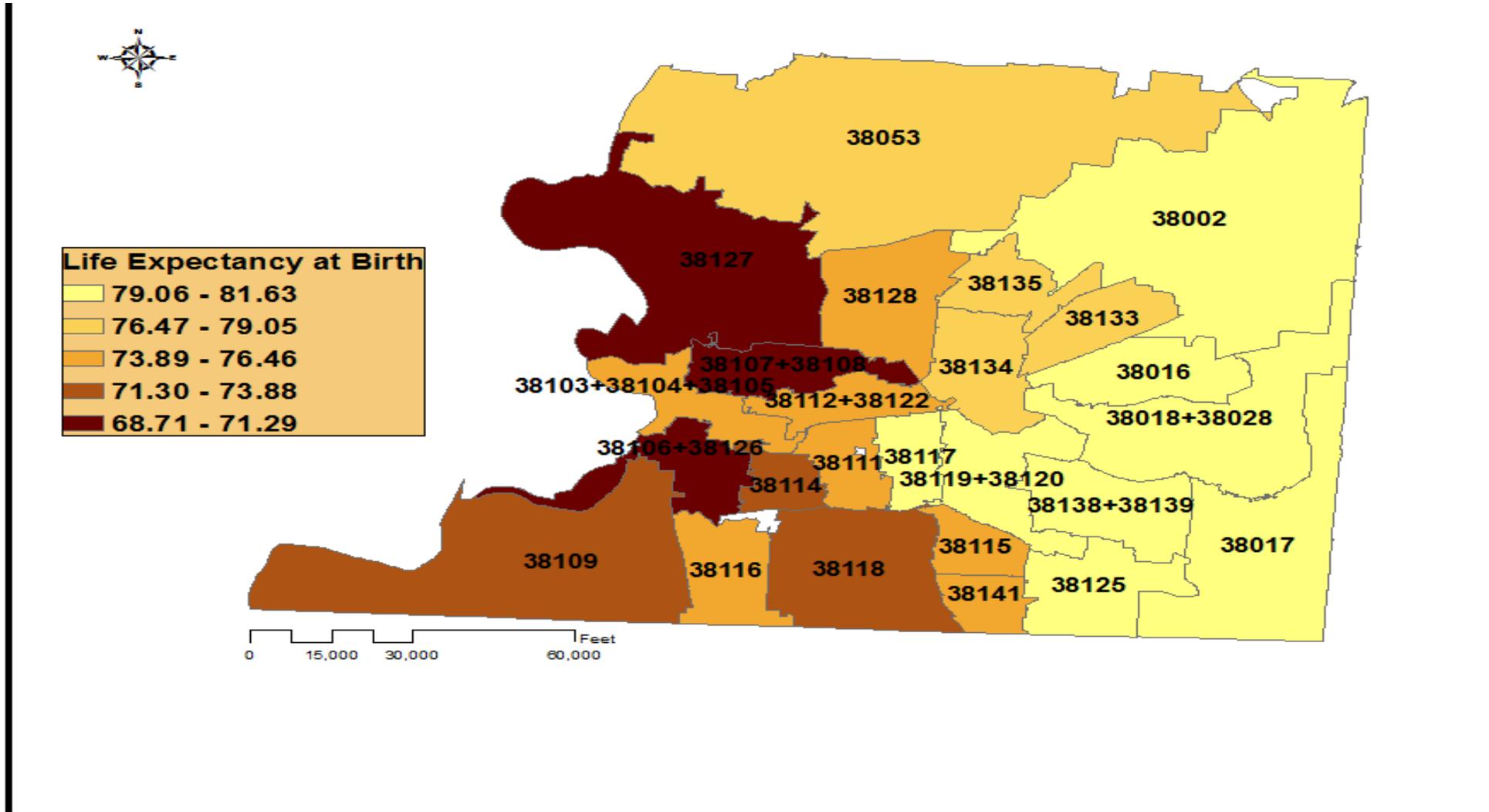
Data Source for local LE: Office of Epidemiology and Infectious Diseases, Shelby County Health Department.



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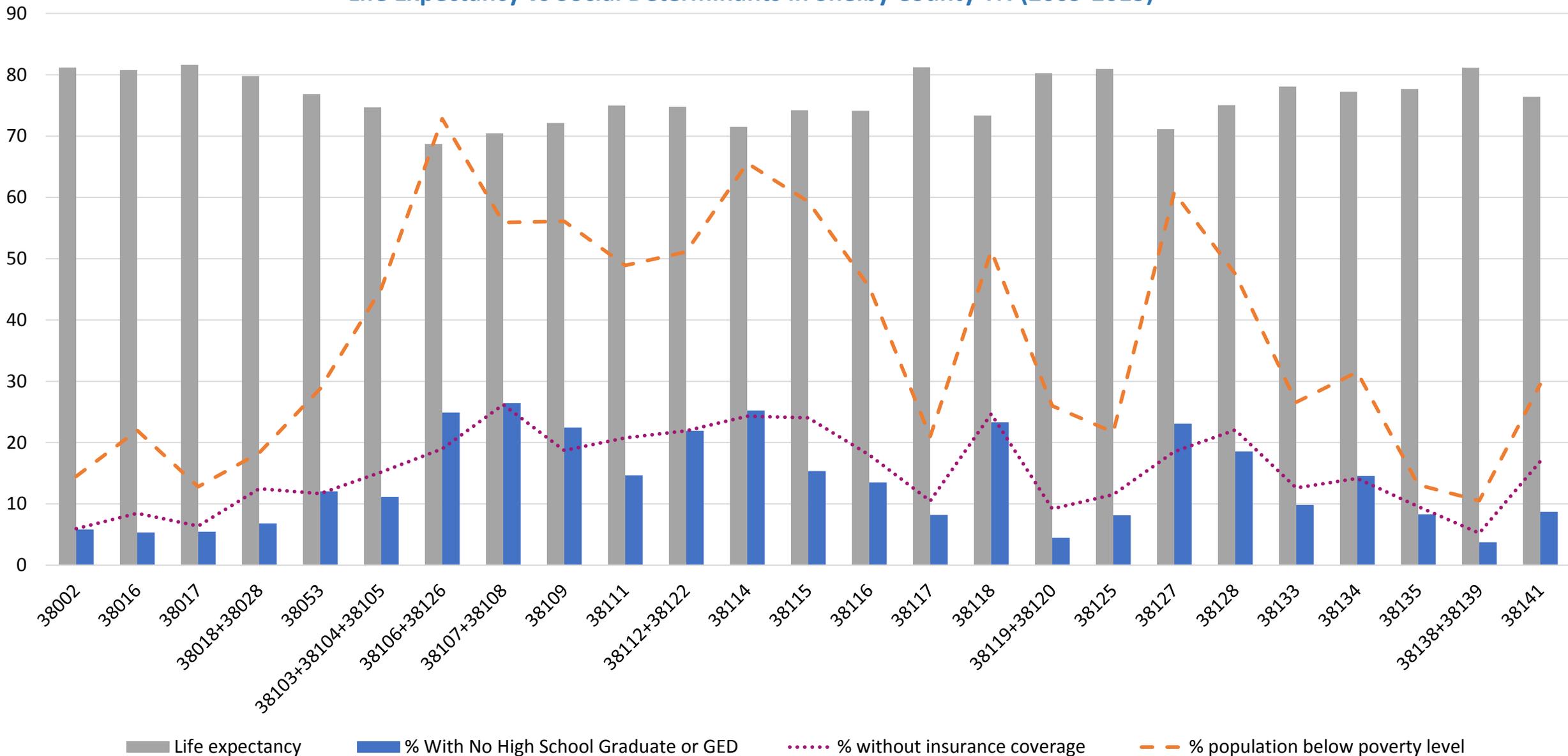
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## Life Expectancy at Birth in Shelby County TN 2009-2013

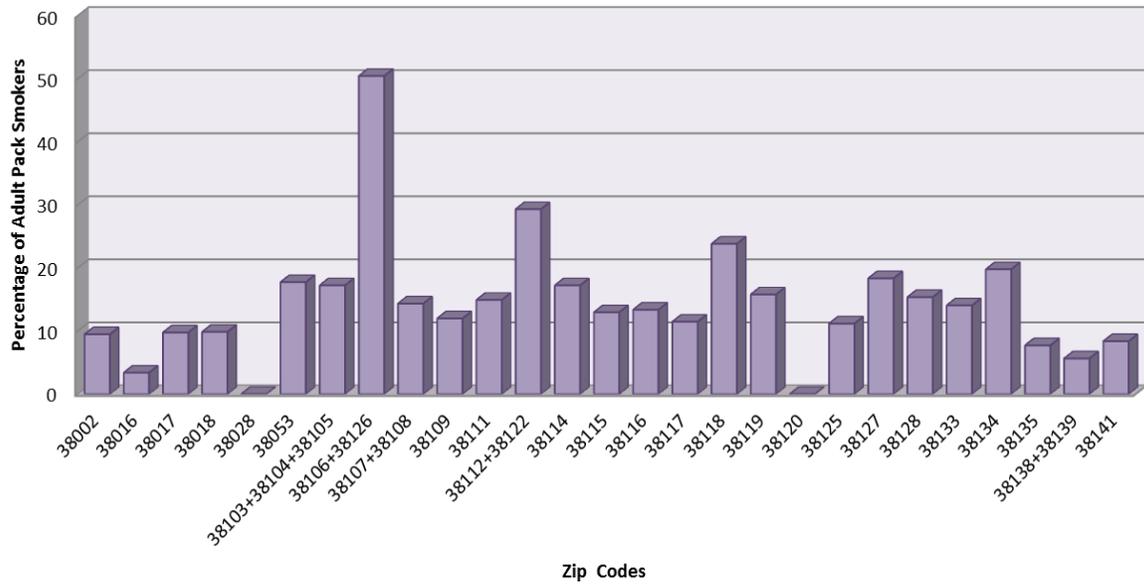




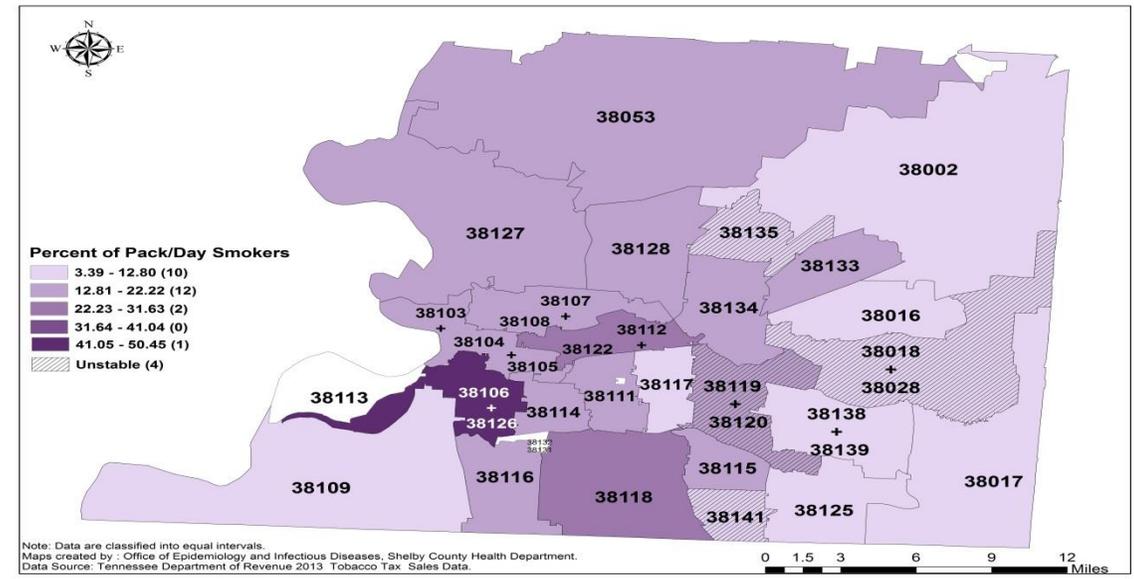
### Life Expectancy vs Social Determinants in Shelby County TN (2009-2013)



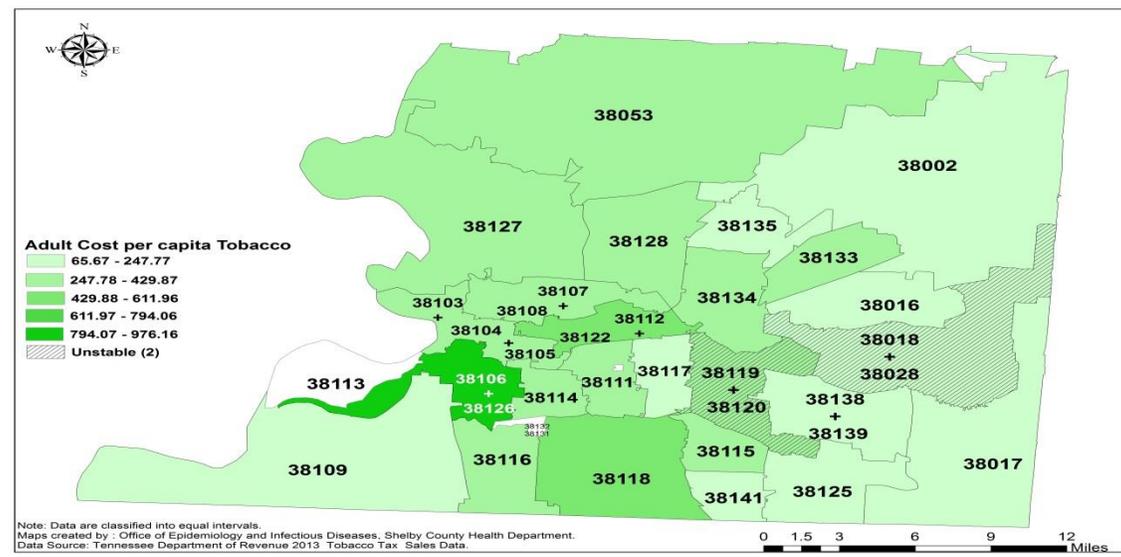
### % of Adult pack/day smokers in Shelby County Tennessee



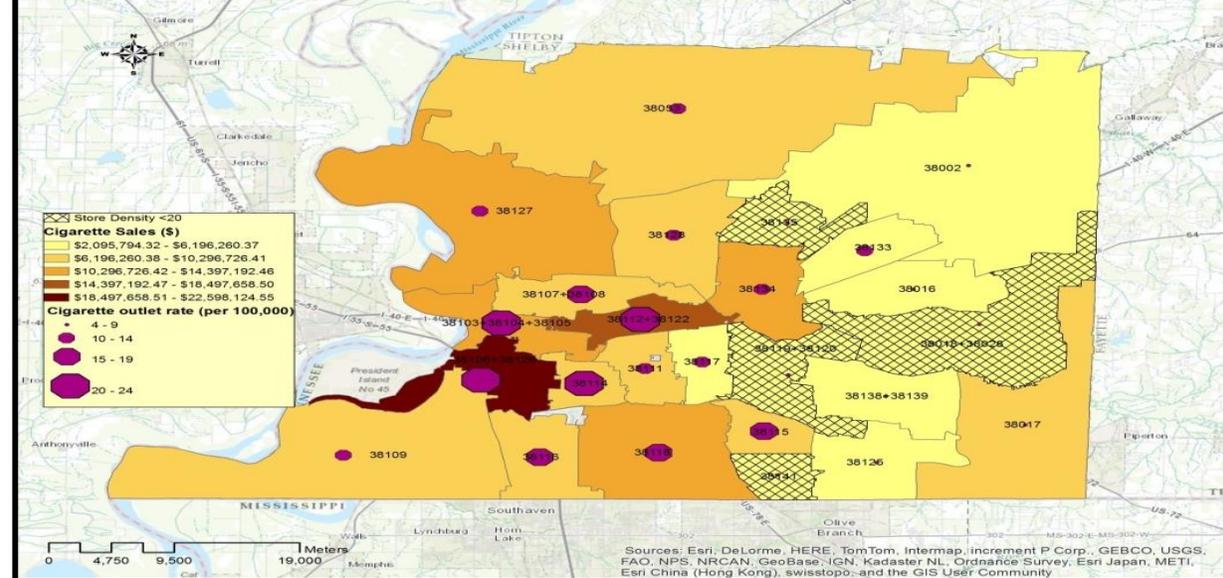
### Percent of Adult Pack/Day Smokers in Shelby County, TN-2013



### Cigarette Sales per capita in Shelby County, TN -2013 (Adults Only)



### Cigarette Sales vs Cigarette Outlet Rate in Shelby County TN (2013)

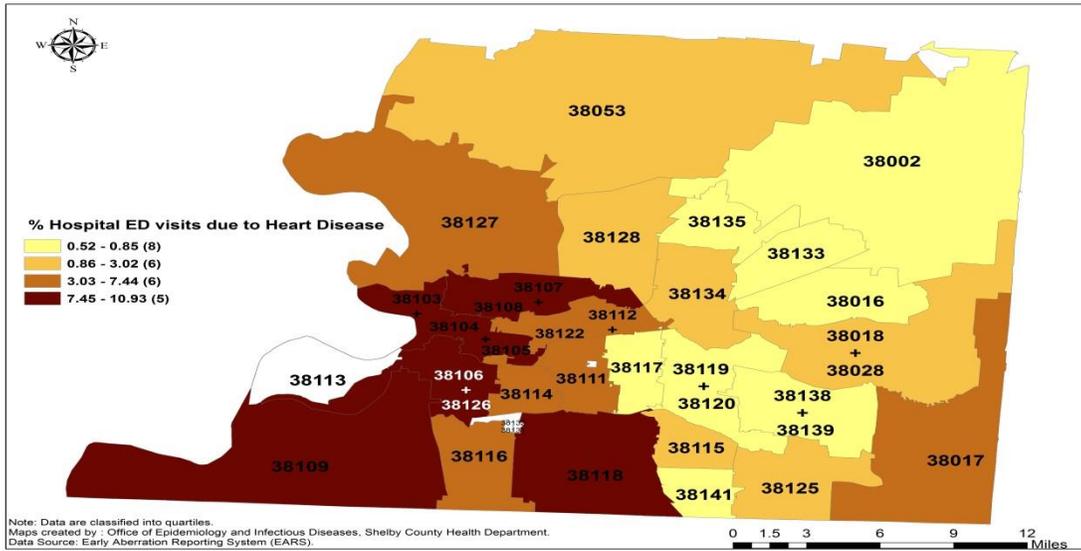


Maps created by : Office of Epidemiology and Infectious Diseases, Shelby County Health Department.  
Data Source: Tennessee Department of Revenue 2013 Tobacco Tax Sales Data.

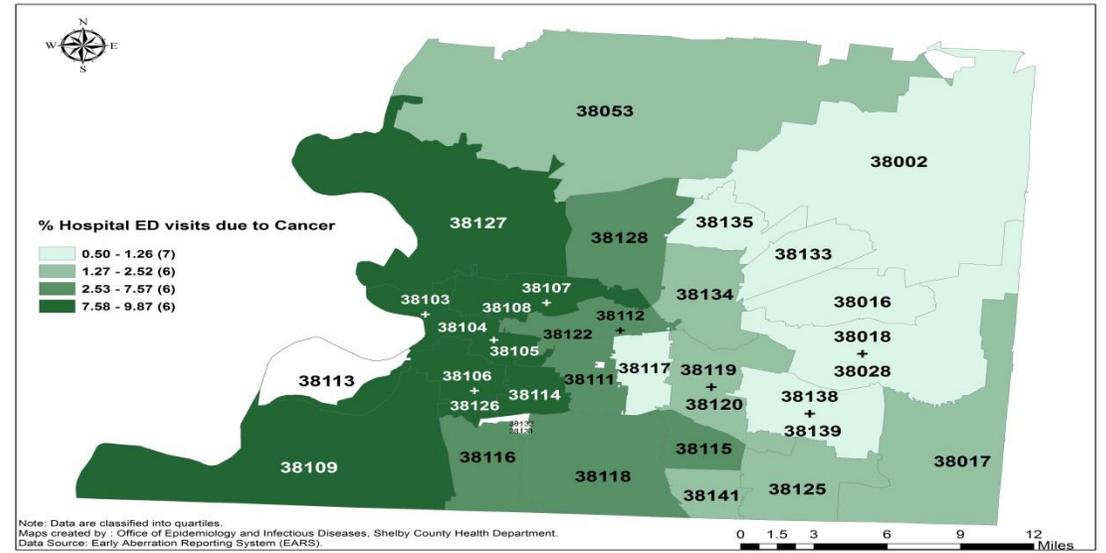
Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community



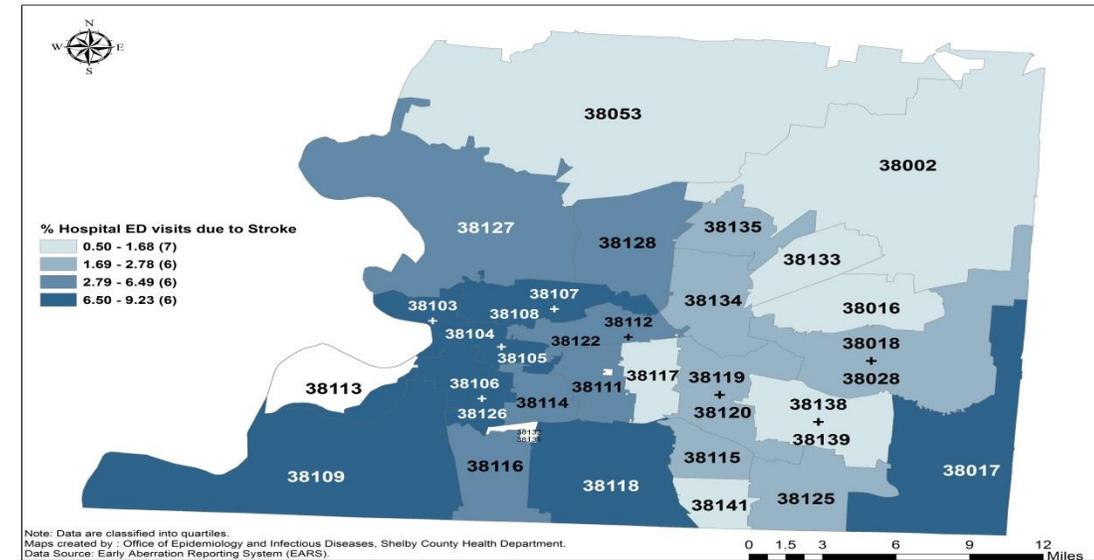
### Percent ED visits due to Heart Disease in Shelby County, 2007-2014



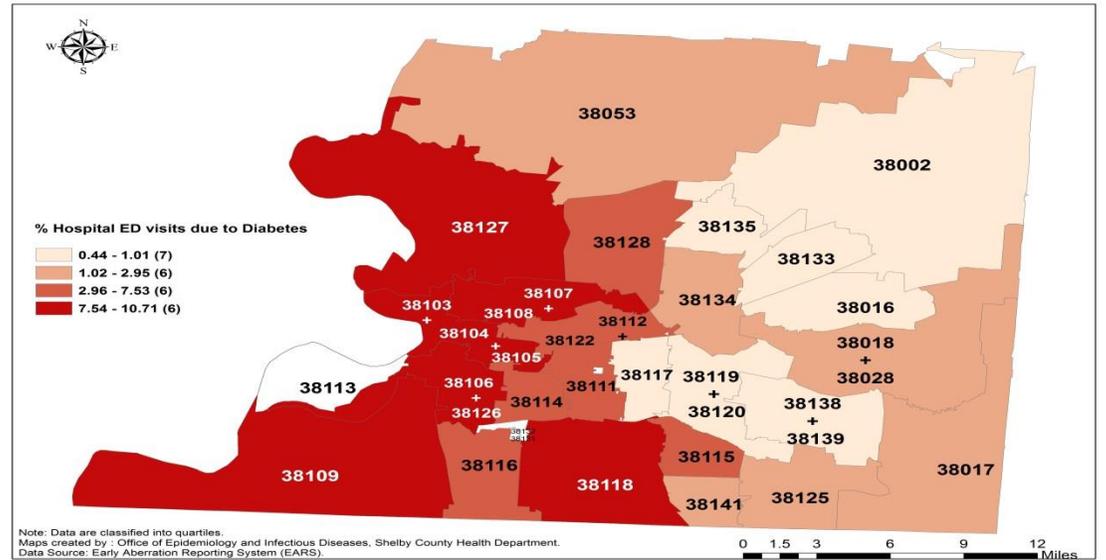
### Percent ED visits due to Cancer in Shelby County, 2007-2014



### Percent ED visits due to Stroke in Shelby County, 2007-2014

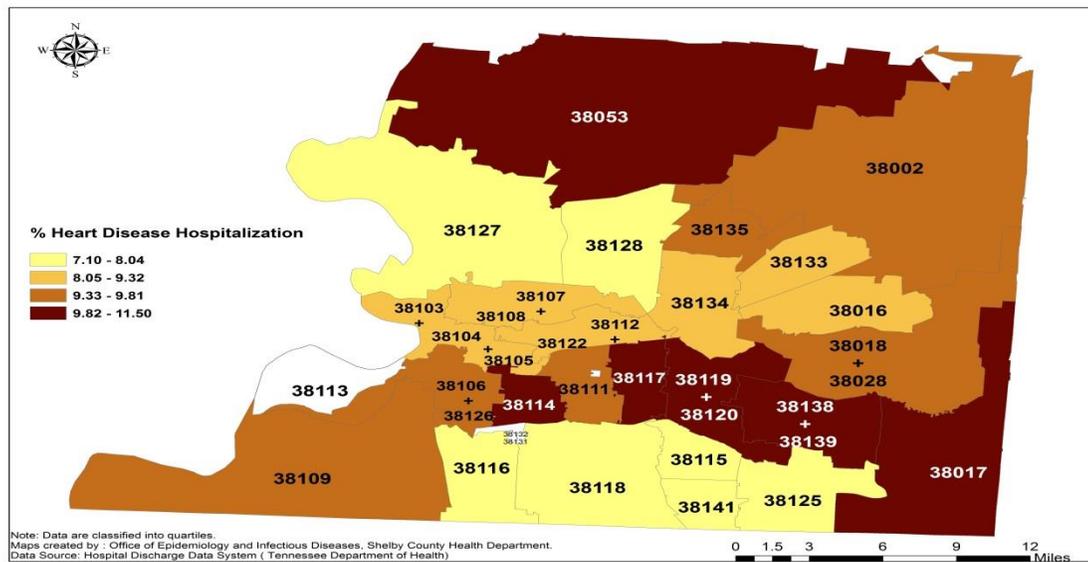


### Percent ED visits due to Diabetes in Shelby County, 2007-2014

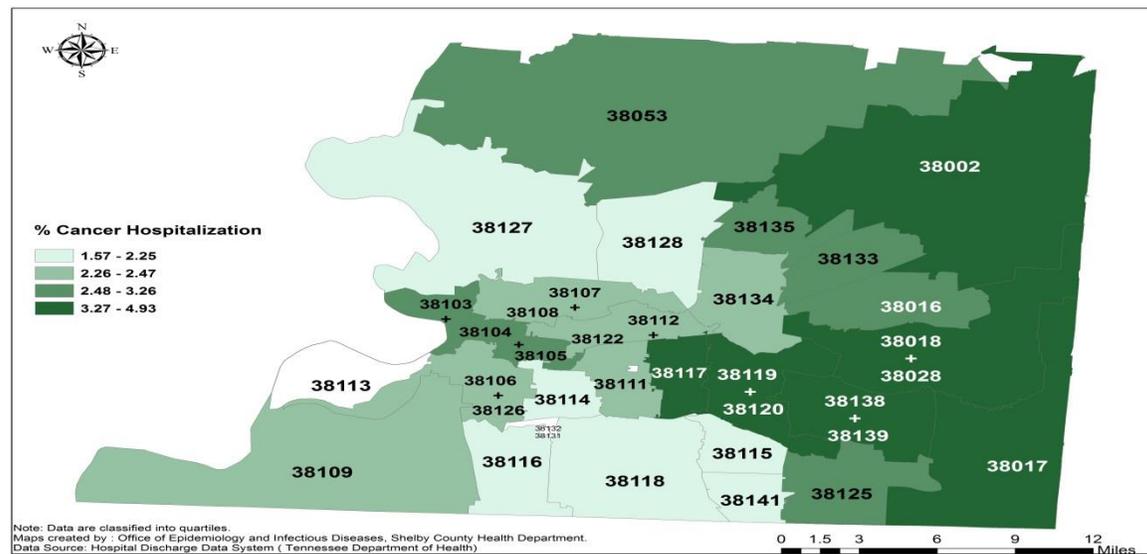




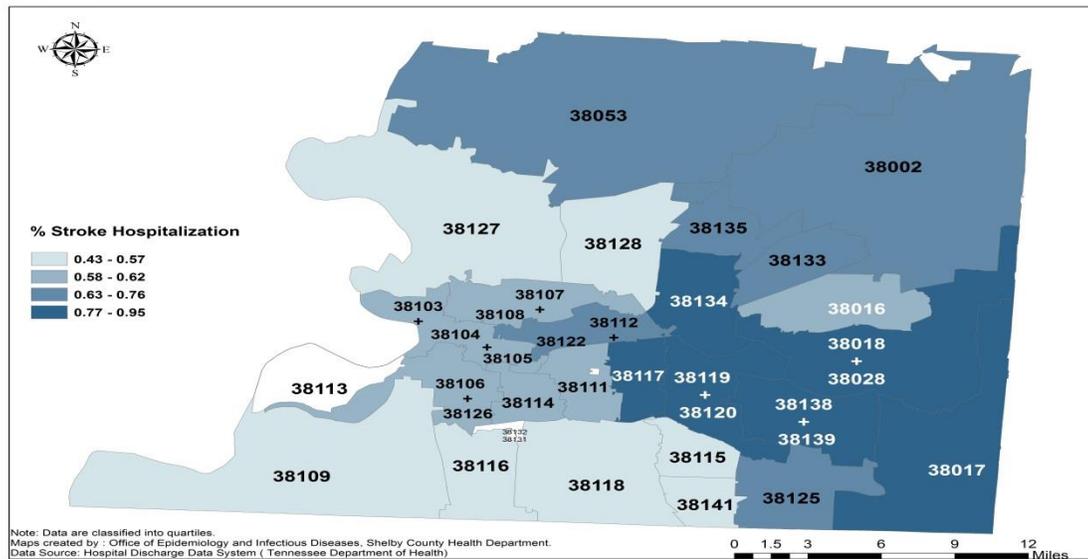
### Percent of Total Heart Disease Inpatient Hospitalization in Shelby County, 2009-2013



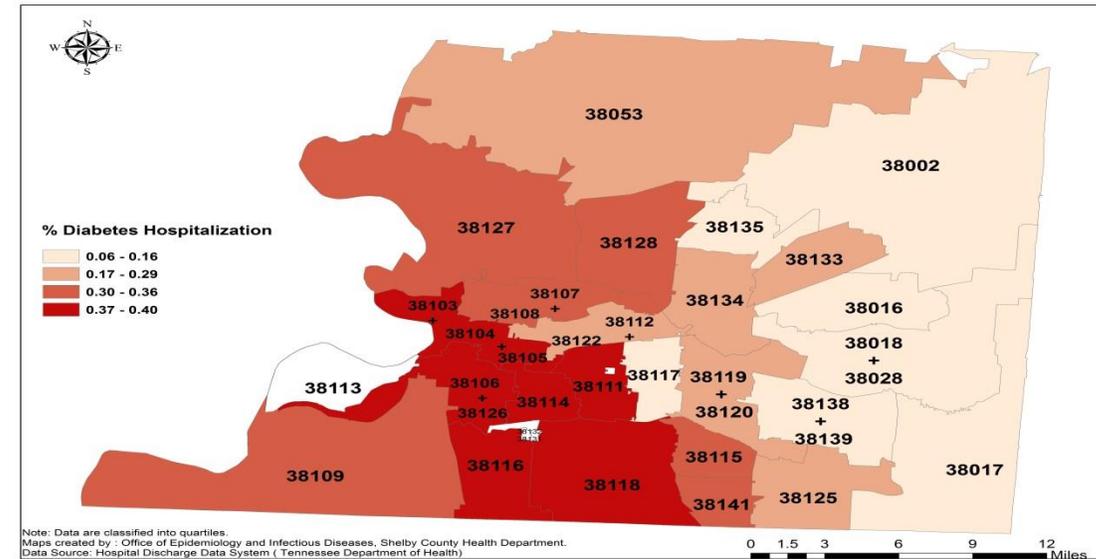
### Percent of Total Cancer Inpatient Hospitalization in Shelby County, 2009-2013



### Percent of Total Stroke Inpatient Hospitalization in Shelby County, 2009-2013

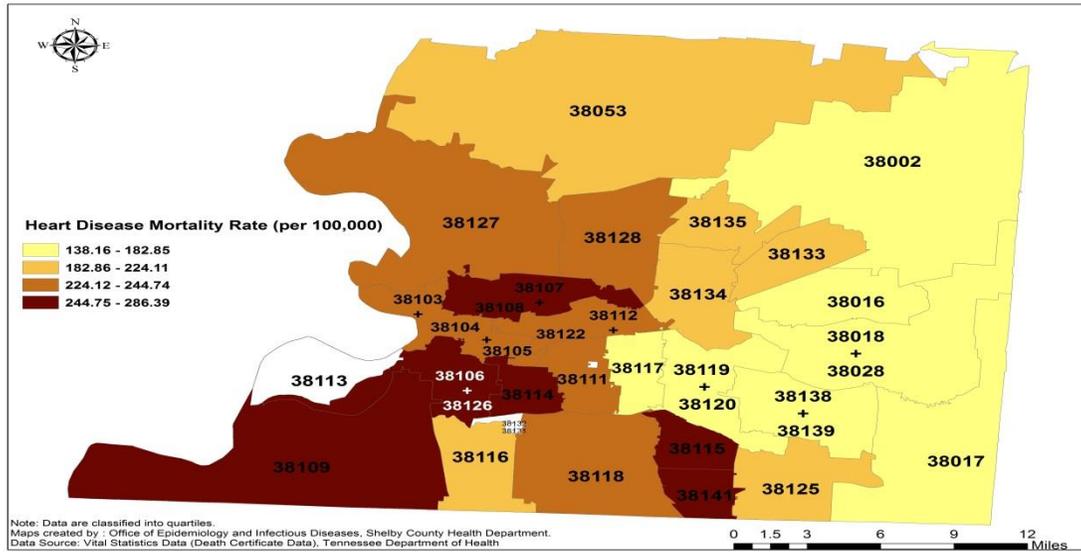


### Percent of Total Diabetes Inpatient Hospitalization in Shelby County, 2009-2013

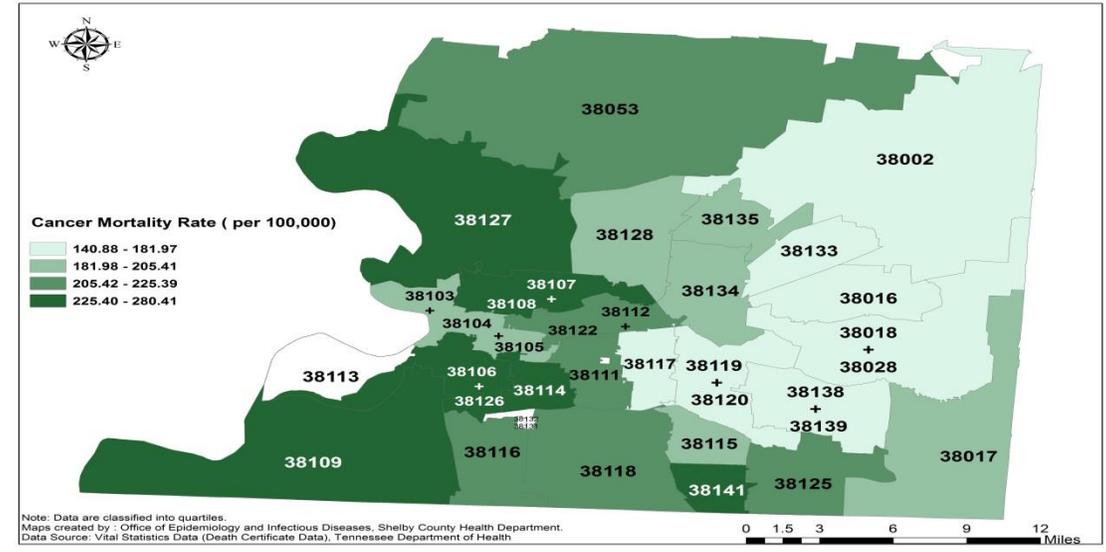




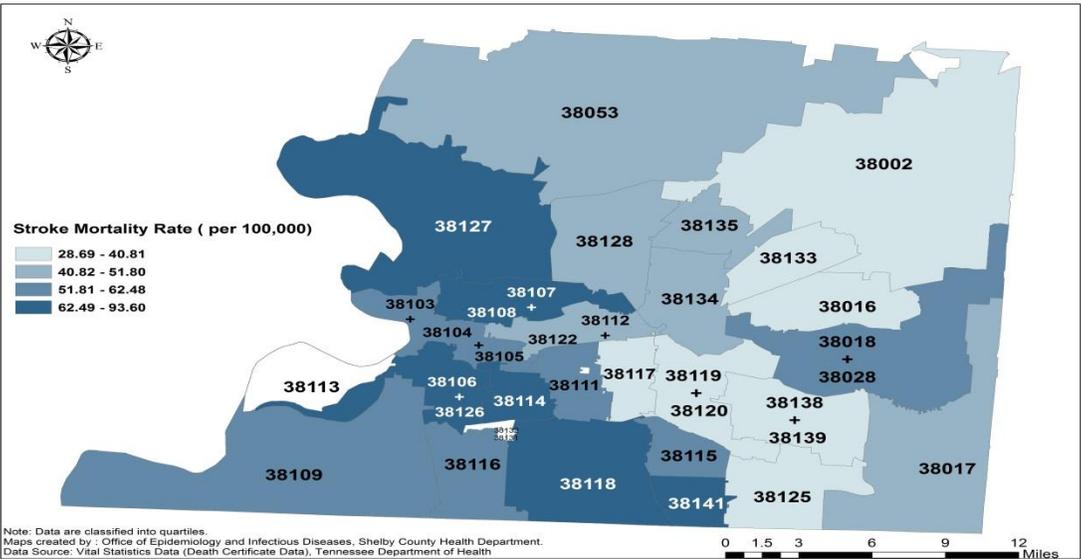
### Heart Disease Mortality Rate by Zipcode Shelby County, 2009-2013



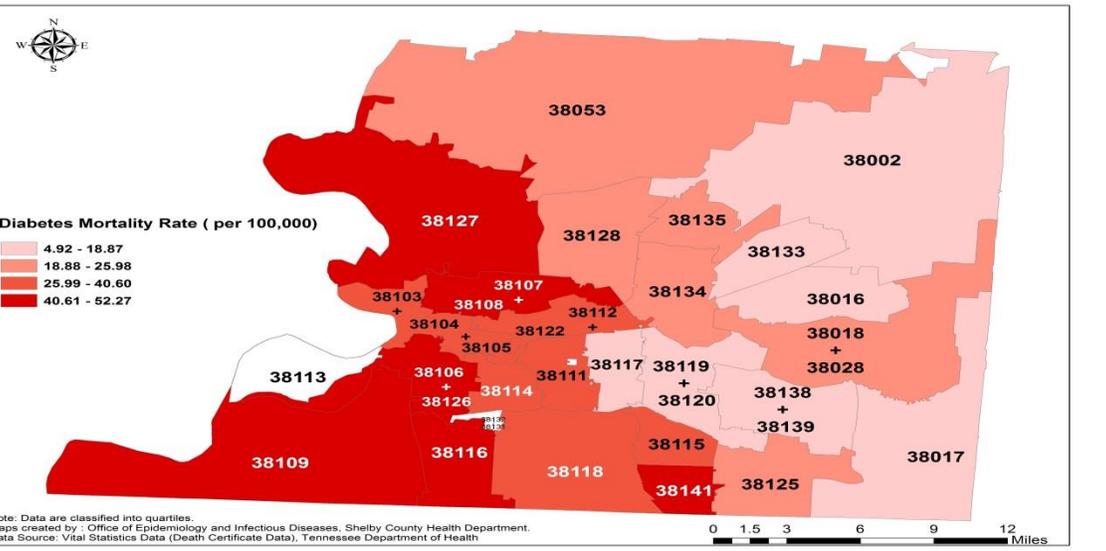
### Cancer Mortality Rate by Zipcode Shelby County, 2009-2013



### Stroke Mortality Rate by Zipcode Shelby County, 2009-2013



### Diabetes Mortality Rate by Zipcode Shelby County, 2009-2013





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# CONCLUSION

- ❖ Sub-County analysis can be a powerful approach to understanding the variable distribution and determinants of disease in your jurisdiction.
- ❖ Only you can determine the right units for your SCALE analysis.
- ❖ Various data streams including SCALE are required to identify areas of need.
- ❖ This type of analysis will enable local agencies to be more effective in targeting limited resources to areas with greatest need within the County.

# Contact Information

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