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

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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
Calculating Life Expectancy using Zip Code level Data.

Get Data!
- Deaths - Vital statistics data: Obtained from State Health Department through DUA or Data request.
- Population - Census data, ACS, ESRI or local source.

Organize Data
- Deaths - Aggregated by 19 age groups, Zip Codes & sex: arrange data
- Population - Aggregated by 19 age groups, ZCTA & sex: arrange data

Calculation of LE
- SEPHO Tool
- Age Adjusting tool*

Map
- Arc GIS
- Others
TARGET DATA SETS

1. VITAL STATISTICS
   - Death Data
   - Birth Data
     - Disease Indicator
     - Maternal Child Health

2. HOSPITAL DISCHARGE DATA (Utilization)

3. CENSUS TRACT DATA (Population and social determinants)

4. REVENUE DATA (Health Behavior)

5. SYNDROMIC SURVEILLANCE DATA (Utilization)

6. OTHER DATA SOURCES
Comparison of LE 2013  
(Country, State, County)

<table>
<thead>
<tr>
<th></th>
<th>USA</th>
<th>Tennessee</th>
<th>Shelby County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Expectancy (At Birth)</td>
<td>78.88</td>
<td>76.3</td>
<td>76.2</td>
</tr>
</tbody>
</table>

Comparison of LE 2013  
(US vs World)

<table>
<thead>
<tr>
<th></th>
<th>USA</th>
<th>Taiwan</th>
<th>Tennessee</th>
<th>Antigua and Barbuda</th>
<th>Shelby County</th>
<th>Lithuania</th>
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<tbody>
<tr>
<td>Life Expectancy (At Birth)</td>
<td>78.88</td>
<td>78.97</td>
<td>76.3</td>
<td>76.3</td>
<td>76.2</td>
<td>76.19</td>
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Data Source for World LE: 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.
Data Source for County and Sub-County LE: Office of Epidemiology and Infectious Diseases, Shelby County Health Department.

Life Expectancy in Shelby County by Race (2013)

- Life Expectancy at Birth (Years)
  - White: 84.5
  - Black: 75.4

Life Expectancy in Shelby County by Sex (2013)

- Life Expectancy at Birth (Years)
  - Male: 73.3
  - Females: 79

Life expectancy at Birth in Shelby County TN

Zip Codes: 38002, 38016, 38041, 38053, 38056-38076, 38102-38108, 38110, 38111, 38112-38122, 38114, 38115, 38116, 38117, 38118, 38119-38120, 38125, 38127, 38128, 38133, 38134, 38135, 38138-38139, 38141

Life Expectancy (Years)

- 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82
Comparison of LE (Shelby County Zip vs World) 2013

<table>
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<tr>
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<tbody>
<tr>
<td>38017</td>
<td>81.63</td>
</tr>
<tr>
<td>France</td>
<td>81.6</td>
</tr>
<tr>
<td>38106+38126</td>
<td>68.71</td>
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<td>Belize</td>
<td>68.59</td>
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</table>
Maps created by: Office of Epidemiology and Infectious Diseases, Shelby County Health Department.
Data Source: Tennessee Department of Revenue 2013 Tobacco Tax Sales Data.
Maps created by: Office of Epidemiology and Infectious Diseases, Shelby County Health Department.
Data Source: Early Aberration Reporting System (EARS).
Maps created by: Office of Epidemiology and Infectious Diseases, Shelby County Health Department.
Data Source: Hospital Discharge Data System (Tennessee Department of Health)
Maps created by: Office of Epidemiology and Infectious Diseases, Shelby County Health Department. 
Data Source: Vital Statistics Data (Death Certificate Data), Tennessee Department of Health.
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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