



HEALTHY CAPITAL DISTRICT INITIATIVE

Building A Healthier Community

Health Equity Report

Premature Mortality

Healthy Capital District Initiative
Population Health Improvement Program
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Introduction

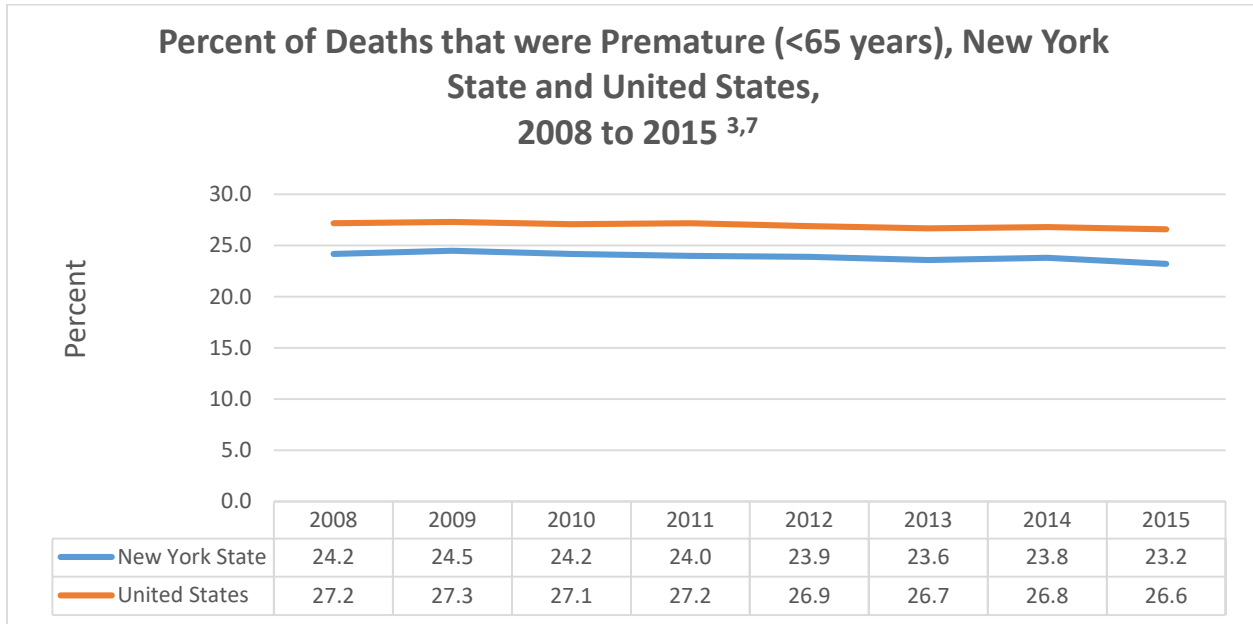
Mortality statistics are valuable tools in assessing and comparing the health status of communities. Mortality is inevitable, but premature mortality, or dying before the average life expectancy of a population, is not and can often be prevented through appropriate public health interventions.¹

Population health can be greatly improved by preventing premature mortality. Two ways to measure premature mortality are looking at the percent of all deaths which were premature (before 65 years) in a community, and analyzing Years of Potential Life Lost (before age 75). Years of Potential Life Lost (YPLL) is a summary measure of premature mortality and its leading causes. It represents the total number years not lived by people who die before a given age. Thus, deaths among younger people contribute more to the YPLL measure than deaths among older people. In the US, the age limit is often set at 75, so people who die before 75 have lost some potential years of life. For example, a person dying at age 25 contributes 50 years of life lost.²

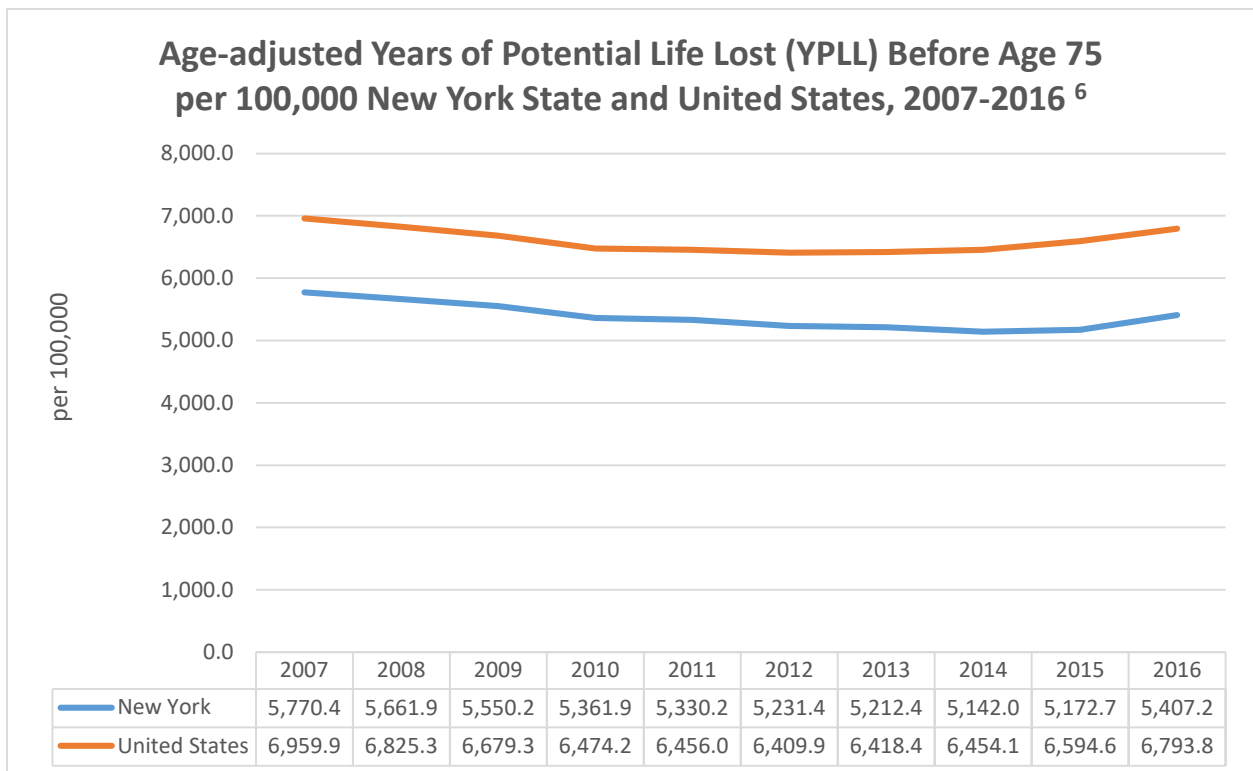
The Capital Region has issues with premature mortality. The Region has a higher percent of deaths which were premature, and a higher YPLL rate, compared to Upstate NY. In fact, almost 30,000 Capital Region residents live in neighborhoods where more than 50% of all deaths were premature and over 83,000 residents live in neighborhoods where the YPLL rate is 1.5 times higher than Upstate NY.

This Health Equity Report will utilize the aforementioned measures, percent of deaths that were premature and Years of Potential Life Lost (YPLL), to identify and analyze premature mortality in Upstate New York, the Capital Region, the counties and neighborhoods that make up the Capital Region. These two indicators were chosen for the following reasons: 1) the percent of deaths that were premature before 65 years has been identified by NYSDOH as a Prevention Agenda tracking indicator³, and (2) YPLL is a commonly used nationally to measure premature mortality. For example, Healthy People 2020 identified YPLL as a General Health Status indicator,⁴ and the County Health Rankings and Roadmaps utilizes YPLL as a measure of premature death. In fact, for the County Health Rankings, YPLL contributes 50% of the total weight of the Health Outcome Ranking (quality of life (30%) and low birthweight (20%) make up the rest of the ranking).^{2,5} This Report will also present the percent of YPLL by cause for each county, the Capital Region and Upstate NY.

Federal and State Context



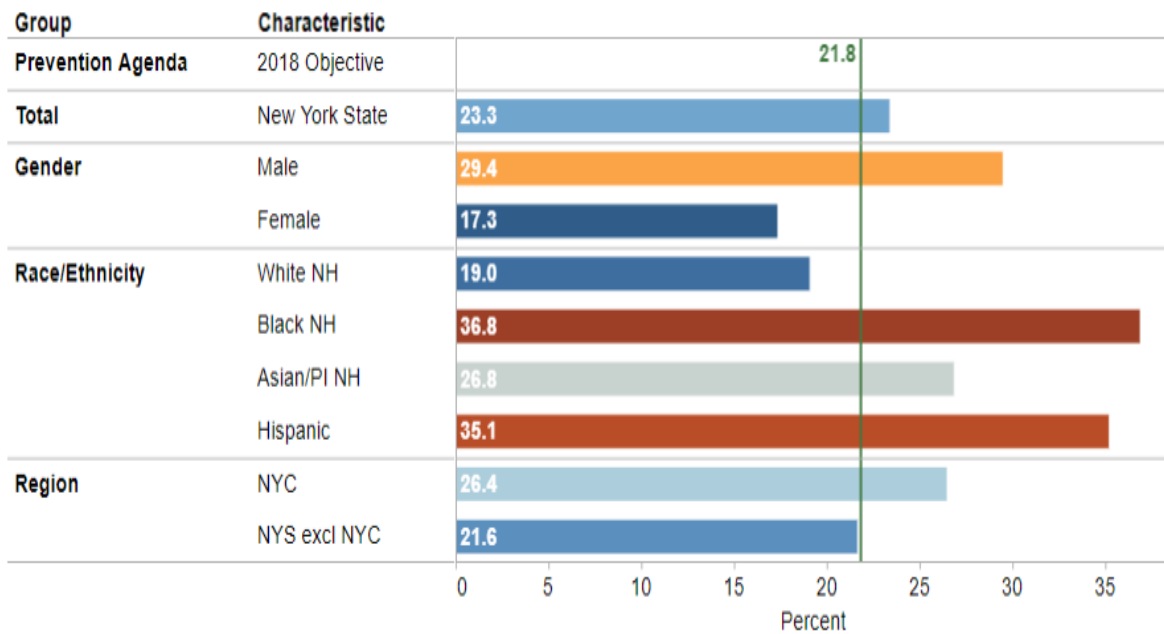
The Percent of Deaths that were Premature (< 65 years) showed little fluctuation over the last 8 years. The percent decreased 4% for New York (NY) and only 2% for the United States (US). NY’s percent was consistently lower than the US, 13% lower in 2015 (23.2% vs 26.6%).^{3, 7}



The age-adjusted YPLL (before age 75) rates for both New York and the US showed decreases for most of the last decade, but increases over the last 3 years. Both showed a 5% increase in the YPLL rate from 2014 to 2016. NY had consistently lower YPLL rates compared to the US, 20% lower in 2016 (5,407/100,000 vs 6794).⁶

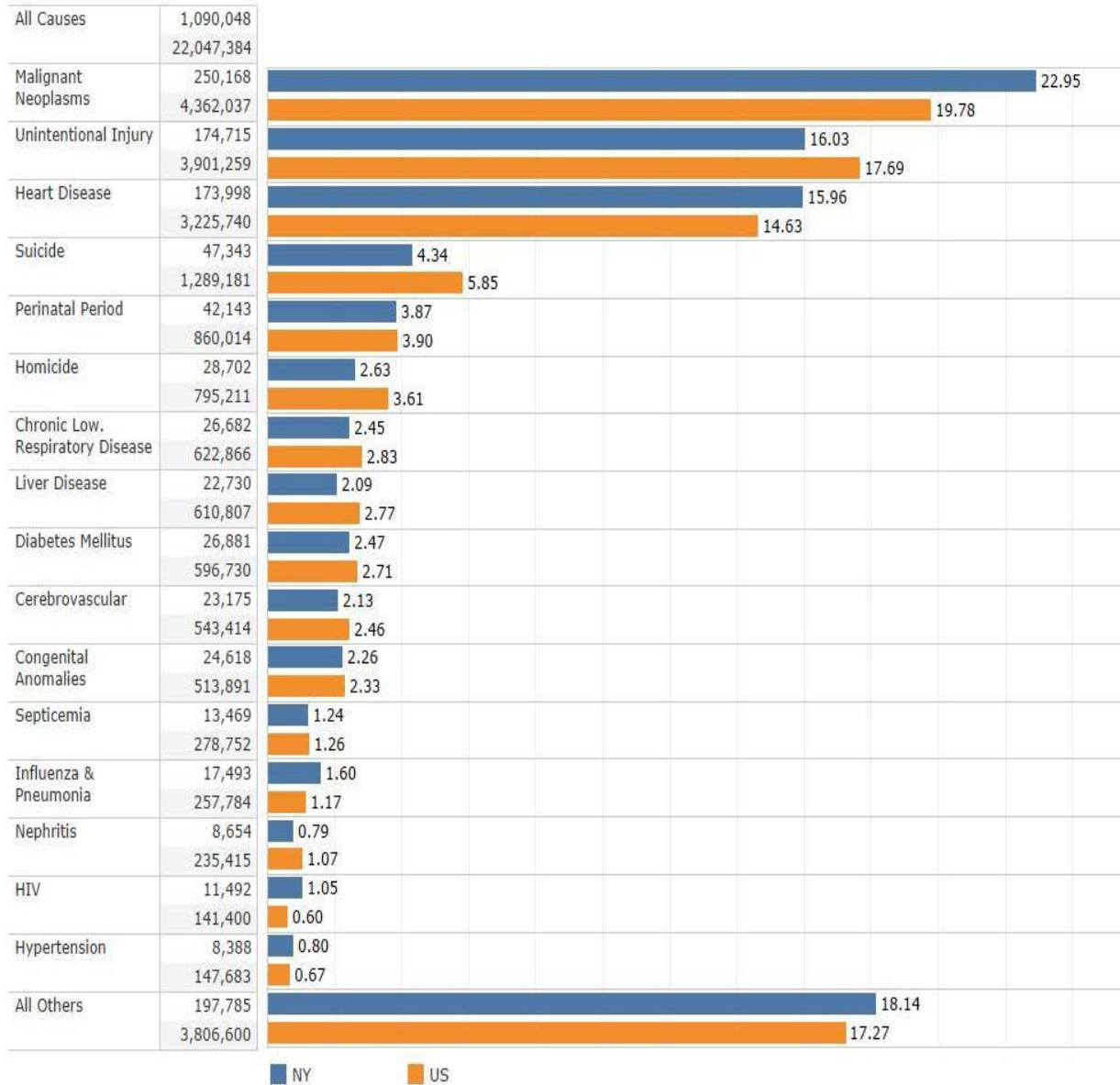
Percentage of premature deaths (before age 65 years), 2015

Data Source: Vital Records data as of April 2017



The NYS Prevention Agenda’s objective for the Percent of Deaths that were Premature (before age 65 years) is 21.8%. In 2015, Upstate NY met the Prevention Agenda objective, as only 21.6% of its deaths were premature.³, but the entire state did not as 23.3% of deaths in New York were premature. Male, Black non-Hispanics and Hispanic New Yorkers were at the highest risk for premature death as their percent premature death was 29.4%, 36.8%, and 35.1% respectively.

Years of Potential Life Lost (YPLL) Before Age 75 2016 US vs NY



In 2016, there were over 22 million YPLL in the United States and 1.1 million YPLL in New York State. Malignant Neoplasms, Unintentional Injury and Heart Disease were the top 3 causes of YPLL for both the US and NY. Compared to NY, the US had higher % of YPLL for Unintentional Injury, Suicide, Homicide, and Liver Disease. New York had higher % YPLL for Cancer, Heart Disease, Influenza and pneumonia and HIV.⁶

Premature Mortality Summary for the Capital Region

Highlights:

About 1,900 deaths, or 22% of all deaths, in the Capital Region were **premature (before 65 years)** which was slightly higher than both the premature death percentages for Upstate, NY (21.4%) and the Prevention Agenda objective (21.8%). The **% of premature deaths** was fairly static over the last decade. The % premature deaths was 1.7 times higher in males than females; 2.4 times higher in the black non-Hispanic and Hispanic residents compared to white non-Hispanic residents; and 2.5 times higher in residents in low SES neighborhoods compared to high SES neighborhoods.

The Capital Region averaged 54,000 **YPLL (<75 years)**, for a **rate** of 5,421/100,000, which was slightly higher than Upstate (4,997/100,000). Saratoga County was the only county that had a YPLL rate lower than Upstate. The Region's rate increased 10% over the last decade, and was consistently higher than Upstate. The YPLL rate was 1.6 times higher in males than females; 1.7 times higher in the black non-Hispanic and 1.1 times higher in Hispanic residents compared to white non-Hispanic residents; and 2.5 times higher in residents in low SES neighborhoods compared to high SES neighborhoods.

Capital Region's top 5 **causes of YPLL** were: cancer (25.2%); heart disease (17.0%); unintentional injury (7.8%); suicide (5.5%); and perinatal conditions (5.2%). Compared to Upstate, Capital Region residents had higher % of YPLL due to cancer, heart disease, perinatal conditions, and "all other"; while a lower percentage due to unintentional injury and opioid. Over the last 5 years, the % of YPLL due to heart disease has increased, while the % due to cancer, and stroke decreased.

Female residents had higher % YPLL due to cancer, perinatal conditions, and COPD/CLRD. **Male** residents had higher % YPLL due to heart disease, unintentional injury, suicide, diabetes, and homicide.

Compared to the general population, Capital Region's **white non-Hispanic** residents had higher % YPLL due to cancer, and suicide. **Black non-Hispanic** residents had higher % YPLL due to heart disease, perinatal conditions, homicide, kidney disease, and SIDS. **Hispanic** residents had higher % YPLL due to: perinatal conditions, homicide, congenital anomalies, and diabetes.

As **SES** increased, the % of YPLL **increased** for cancer, unintentional injury, suicide, and opioid. As **SES** increased, the % of YPLL **decreased** for heart disease, perinatal conditions, homicide, and kidney disease.

Percent of Deaths that were Premature (<65 years)

- For 2013-15, Capital Region residents averaged almost 1,900 deaths that were before the age of 65 years, 22.0% of all deaths and slightly higher than the percent for Upstate (21.4%) and higher than the Prevention Agenda objective of 21.8%. (*Appendix I, p. 2; Appendix II, p.4*)
- Capital Region's % of deaths that were premature for males was over 70% higher than that for females. (*Appendix I, p. 3*)
- Black non-Hispanic and Hispanic resident's % of deaths that were premature was over 140% higher than White non-Hispanic residents. (*Appendix I, p. 3*)
- The % of deaths that were premature decreased as SES increased. The % of deaths that were premature for SES 1 (low) residents was over 150% higher than for SES 5 (high) residents. (*Appendix I, p. 4*)

Years of Potential Life Lost (YPLL) Before Age 75

- For 2013-15, Capital Region residents averaged almost 54,000 YPLL per year for a rate of 5,421/100,000, slightly higher than the rate for Upstate (4,997/100,000). (*Appendix I, p. 7*)
- Over the last decade, the Capital Region's YPLL rate has been consistently higher than Upstate. (*Appendix I, p. 6*)
- Capital Region's YPLL rate increased 10% from 2010 to 2015. (*Appendix I, p. 6*)
- Capital Region's male's YPLL rate was 60% higher than that of female residents. (*Appendix I, p. 7*)
- Black non-Hispanic resident's YPLL rate was almost 70% higher, and Hispanic residents 7% higher than the white non-Hispanic rate. (*Appendix I, p. 8*)
- The YPLL rate decreased as SES increased. The YPLL rate for SES 1 (low) residents was almost 150% higher than for SES 5 (high) residents. (*Appendix I, p. 8*)
- Albany neighborhoods of Center Square, Delaware/2nd Ave, North Albany/Menands, West End, and West Hills/South End fell into the 4th risk quartile of Capital Region neighborhoods for YPLL rates. (*Appendix III, p. 3*)
- Columbia neighborhoods of Hudson and Pine Plains fell into the 4th risk quartile of Capital Region neighborhoods for YPLL rates. (*Appendix III, p. 6*)
- Greene neighborhoods of Cairo/Durham and Catskill fell into the 4th risk quartile of Capital Region neighborhoods for YPLL rates. (*Appendix III, p. 9*)
- The Rensselaer neighborhood of Troy/Lansingburgh fell into the 4th risk quartile of Capital Region neighborhoods for YPLL rates. (*Appendix III, p. 12*)
- Schenectady neighborhoods of Goose Hill/Union, Hamilton Hill, Stockade, and Upper State Street fell into the 4th risk quartile of Capital Region neighborhoods for YPLL rates. (*Appendix III, p. 18*)

Percent of YPLL by Cause

- For 2013-15, Capital Region’s top 5 causes of YPLL were: cancer (25.2%); heart disease (17.0%); unintentional injury (7.8%); suicide (5.5%); and perinatal conditions (5.2%). (*Appendix I, p. 9, 10*)
- Compared to Upstate, Capital Region residents had higher % of YPLL due to cancer, heart disease, perinatal conditions, and “all other”; while lower percentage due to unintentional injury and opioid. (*Appendix I, p 9, 10*)
- Compared to the general population, the Capital Region’s white non-Hispanic residents had higher % YPLL due to: cancer; and suicide. (*Appendix I, p. 11*)
- Compared to the general population, Capital Region’s black non-Hispanic residents had higher % YPLL due to: heart disease; perinatal conditions; homicide; kidney disease; and SIDS. (*Appendix I, p. 11*)
- Compared to the general population, Capital Region’s Hispanic residents had higher % YPLL due to: perinatal conditions; homicide; congenital anomalies; and diabetes. (*Appendix I, p. 11*)
- As SES increases, the % of YPLL **increases** for: cancer; unintentional injury; suicide; and opioid. (*Appendix I, p. 11*)
- As SES increases, the % of YPLL **decreases** for: heart disease; perinatal conditions; homicide; and kidney disease. (*Appendix I, p. 11*)

Data and Methods

This Health Equity Report on Premature Mortality presents national, state, county, and neighborhood (Zip code aggregate) level information by health equity for: Percent of Deaths that were Premature (< 65 years); Years of Potential Life Lost (YPLL) before age 75, and the Percent of YPLL by Cause.

National data on percent premature death were collected from the National Center for Health Statistics National Vital Records Reports. New York State percent premature death data were from the NYS Prevention Agenda Tracking Indicators. National and New York State data on YPLL and the Percent of YPLL by cause were collected from the CDC, Injury Prevention and Control WISQARS Fatal Injury, YPLL Report. The Common Grounds Health’s Vital Statistics Data Portals were used to generate Capital Region, County, and Neighborhood percent premature deaths, YPLL rates and percent YPLL by cause.

The Report takes a broad definition of equity that includes gender, race/ethnicity, and socioeconomic status. Where available, the premature mortality indicators were generated by the following groupings:

Region-- Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Capital Region, Upstate;

Gender—Male, Female;

Race/Ethnicity—White non-Hispanic, Black non-Hispanic, Hispanic.

Socioeconomic status—SES 1 (low), SES 2, SES 3, SES 4, SES 5 (high).

When reviewing Race/Ethnicity, the graphs present rates by “Other” categories. Because these categories include a mix of racial groups (e.g. Asian, Native American, Multi-race) and were generally low in number, these categories were not discussed in the narrative.

The Common Ground Health Data Portal included a SES query with analysis available at the Zip code level or by Zip Code aggregate, including county. SES was based on average income, level of education, value of housing stock, age of housing stock, population crowding, percent of persons paying more than 35% of their income on housing, and percent of children living in single parent households. The Common Ground Health Data Portal only had SES scores available for counties north and west of Westchester County. Each Zip code was assigned a value of SES 1 through SES 5, with SES 1 being the lowest and SES 5 being the highest. SES 1 and SES 5 each contain 15% of the population, SES 2 and SES 4 each contain 20% of the population, and SES 3 contains 30% of the population. Since the SES categories are Zip-code based, data generated by SES might vary from data generated by county.

A series of county-specific maps, presenting data at the neighborhood (Zip code aggregate), is contained in the Appendix III- Neighborhood Atlas. The Zip Code neighborhood groupings used for the sub-county maps are available in the HCIDI 2016 Community Health Needs Assessment, pages 177-189

http://www.hcdiny.org/content/sites/hcdi/2016_chna/2016_HCIDI_community_health_needs_assessment.pdf).

HCIDI would like to acknowledge our student intern Emily Miron, whose work contributed to the development of this Equity Report.

Appendices

[Appendix I- Indicator comparisons by Capital Region County, Capital Region, and New York State, excl. NYC.](#)

[Appendix II- County-specific premature mortality indicator data.](#)

[Appendix III Neighborhood Atlas-indicator maps and data at the neighborhood \(Zip code-aggregate\) level.](#)

References

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