HEALTH EQUITY IN THE FINGER LAKES REGION:
A Chartbook

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Executive Summary

Health inequity is a pervasive and deep problem across the Finger Lakes region. Many residents struggle to stay healthy and manage illness because of barriers associated with their socioeconomic status, race/ethnicity or neighborhood.

This health equity chartbook was developed as part of a broader research effort by Common Ground Health to understand these inequities and to inform efforts to eliminate them. For over 15 years, the agency has worked with the African-American and Latino health coalitions to understand and address health disparities. This report is our most comprehensive examination to date of health disparities across the region, because we have explored more extensively the interplay of race/ethnicity, socioeconomic status and geography.

One of the primary findings of the research is the strong connection between poverty and health. Poverty affects large numbers of whites, blacks and Latinos across urban, rural and suburban areas. And with that broad-reaching poverty comes deep health disparities. There is a clear and persistent relationship between socioeconomic status (SES) and premature mortality as measured by years of potential life lost.* In 2015, the rate was 135 percent higher in the lowest SES ZIP codes than in the highest SES ZIP codes.

* Years of potential life lost (YPLL) are calculated for deaths that occur before age 75.
While differences in socioeconomic status explain much of the health inequity across the region, there are some populations with experiences and outcomes driven by other factors. Most notably, health outcomes for African-Americans are generally significantly worse than socioeconomic status alone would predict. Overall, African-Americans have a premature mortality (YPLL) rate that is 74 percent higher than whites. Perhaps more striking, at every level of socioeconomic status, African-Americans have a significantly worse YPLL rate than their white and Latino peers.

Examination of the causes of death behind these large disparities in premature mortality shows the very broad impact of the underlying inequities. The residents in lowest SES areas and African Americans experience higher rates of years of potential life lost across nearly all causes of death. However, the data illuminate the biggest drivers of disparity, which therefore provide the biggest opportunities for improvement.

For the lowest SES population, four causes of death explain half of the overall disparity in premature mortality. These are: heart disease, cancer (with lung cancer being by far the largest contributor), homicide and premature birth disorders. The causes of death with the largest disparities for black and Latino populations are very similar. Heart disease, homicide and premature birth disorders are the top three drivers for both populations, although the magnitudes of the disparities are significantly higher for blacks compared to Latinos.
The following chapters provide a broader and deeper look at health disparities – not only at the outcomes such as premature mortality, but also at some of the upstream factors that lead to those outcomes. This exploration is framed by the Health Inequity Pathway.

**Health Inequity Pathway***

This framework shows how disease and mortality are driven by the social determinants of health (living conditions and behaviors), which themselves are shaped by underlying and persistent social and structural inequities including racism. Understanding and addressing these root causes is critical for any effort aimed at large and sustainable improvement in health equity.

* Adopted from the Bay Area Regional Health Inequities Initiative framework for reducing health inequities. [http://barhii.org/framework/](http://barhii.org/framework/)
Asthma provides a good example for how a multitude of socioeconomic, environmental and behavioral factors influence both the prevention and management of illness. The likelihood of an individual having asthma is increased significantly by a variety of issues, including air pollution; second-hand smoke; dampness and dust often present in poor housing conditions; and both chronic and acute stress. All of these issues are more common and concentrated among poorer populations. And among those people who have asthma, large disparities exist in the ability to prevent acute attacks based on the affordability and accessibility of the right clinical care and medication and the presence of family and social support. Getting a child in to see an allergist or other specialist can be daunting when such professionals are located far away, transportation options are limited and work schedules are inflexible.

Common Ground Health encourages organizations, policy makers and individuals to use the 300 plus data graphs and maps in this report to create a shared, fact-based understanding of our region’s health challenges. These data visualizations are offered as a free public resource for use in presentations, grants, reports and other efforts to improve health.

This chartbook is built upon analysis of Finger Lakes region data from a diversity of sources including: NYS Vital Statistics; NYS Expanded Behavioral Risk Factor Surveillance Survey; SPARCS inpatient and outpatient discharge records; NYS Cancer Registry; and Common Ground Health’s claims database. The insights from these analyses provide a strong foundation for understanding the breadth and magnitude of disparities in health outcomes, along with perspective on the related social determinants of health. However, a deeper understanding of the underlying causes is needed.

To supplement the secondary data in this document, Common Ground Health has conducted a community health equity survey to better understand the barriers people face in managing their health. Nearly 7,000 surveys were completed across the nine-county Finger Lakes region, which provides a rich set of primary data and personal experiences to more deeply understand and combat health inequity.

The insights from this survey, combined with the findings in this chartbook, will inform additional inquiry and ultimately action to address health inequity and its underlying causes.
Chapter 1: Regional Population Overview

Population by Race & Ethnicity

The total population of the nine-county Finger Lakes region has grown only slightly since 1990, and has been essentially flat since 2000. However, the population mix has evolved significantly. Over the last 25 years, the white (not Latino) population decreased by over 60 thousand, while other groups grew. Most notably, the Latino population grew more than 140 percent to 80 thousand.

Source: American Community Survey; Analysis by Common Ground Health
The aging of the population is another significant change in the composition of the region. The chart below shows how the age distribution has shifted significantly since 1990, as baby boomers have moved past their prime working years and people are living longer. The median age in the region has increased from 33 in 1990 to 40 in 2015.

The combined effects of increased racial/ethnic diversity and aging have a large impact on the population mix. As seen in the distribution below, Latino and African-American populations are significantly younger than the white population. The median age of the Latino population is 25, compared to 29 for African-Americans and 44 for whites in the region.
The region’s shifting racial/ethnic demographics translate to an increasingly diverse workforce. Across the region in 2015, 23 percent of the 25-44 year olds were Latino, African-American or races other than white. In more diverse Monroe County, 31 percent of the population is non-white. And these groups comprise an even larger share of the younger population segments, which suggests that the workforce will continue to become more diverse.
The table below shows how the African-American population is distributed across the 9-county Finger Lakes region. Blacks are heavily concentrated in Monroe County, where 86 percent of the region’s African-Americans live. The city of Rochester is home to 52 percent of the African-Americans in the Finger Lakes region. Chemung County has the second-largest population, centered in Elmira.

<table>
<thead>
<tr>
<th>County</th>
<th>Population (2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rochester</td>
<td>69,565</td>
</tr>
<tr>
<td>Irondequoit</td>
<td>16,589</td>
</tr>
<tr>
<td>Gates</td>
<td>10,597</td>
</tr>
<tr>
<td>Greece</td>
<td>7,024</td>
</tr>
<tr>
<td>Henrietta</td>
<td>4,467</td>
</tr>
<tr>
<td>Webster</td>
<td>1,191</td>
</tr>
<tr>
<td>Perinton</td>
<td>965</td>
</tr>
<tr>
<td>Other Monroe</td>
<td>4,426</td>
</tr>
<tr>
<td>Elmira</td>
<td>4,900</td>
</tr>
<tr>
<td>Other Chemung</td>
<td>1,602</td>
</tr>
<tr>
<td>Wayne</td>
<td>3,139</td>
</tr>
<tr>
<td>Geneva</td>
<td>1,639</td>
</tr>
<tr>
<td>Other Ontario</td>
<td>1,361</td>
</tr>
<tr>
<td>Steuben</td>
<td>1,956</td>
</tr>
<tr>
<td>North Dansville</td>
<td>1,045</td>
</tr>
<tr>
<td>Other Livingston</td>
<td>799</td>
</tr>
<tr>
<td>Romulus</td>
<td>1,431</td>
</tr>
<tr>
<td>Other Seneca</td>
<td>376</td>
</tr>
<tr>
<td>Yates</td>
<td>184</td>
</tr>
<tr>
<td>Schuyler</td>
<td>83</td>
</tr>
</tbody>
</table>

Source: American Community Survey
The map below shows the concentration of African-Americans within each ZIP code. The only areas where African-Americans represent over 20 percent of the population are the ZIP codes in/near Rochester and in the Seneca County town of Romulus (which reflects the prison population at Five Points Correctional Facility).
The region’s Latino population is heavily concentrated in Monroe County, although not to the same extent as the African-American population. Thirty-eight percent of the region’s Latinos live in Rochester, while 78 percent live in Monroe County.

### Latino population (2015) Finger Lakes region

<table>
<thead>
<tr>
<th>Location</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rochester</td>
<td>30,477</td>
</tr>
<tr>
<td>Irondequoit</td>
<td>9,615</td>
</tr>
<tr>
<td>Greece</td>
<td>5,871</td>
</tr>
<tr>
<td>Gates</td>
<td>5,347</td>
</tr>
<tr>
<td>Henrietta</td>
<td>2,397</td>
</tr>
<tr>
<td>Webster</td>
<td>1,865</td>
</tr>
<tr>
<td>Perinton</td>
<td>1,103</td>
</tr>
<tr>
<td>Other Monroe</td>
<td>5,688</td>
</tr>
<tr>
<td>Geneva City</td>
<td>2,363</td>
</tr>
<tr>
<td>Other Ontario</td>
<td>2,706</td>
</tr>
<tr>
<td>Arcadia</td>
<td>942</td>
</tr>
<tr>
<td>Other Wayne</td>
<td>2,984</td>
</tr>
<tr>
<td>Elmira</td>
<td>1,583</td>
</tr>
<tr>
<td>Other Chemung</td>
<td>1,020</td>
</tr>
<tr>
<td>Livingston</td>
<td>2,309</td>
</tr>
<tr>
<td>Steuben</td>
<td>1,601</td>
</tr>
<tr>
<td>Seneca</td>
<td>1,032</td>
</tr>
<tr>
<td>Yates</td>
<td>441</td>
</tr>
<tr>
<td>Schuyler</td>
<td>171</td>
</tr>
</tbody>
</table>

Source: American Community Survey
The map shows the concentration of Latinos within each ZIP code. The only areas where Latinos represent over 20 percent of the population are several ZIP codes in Rochester. The concentration of Latinos is generally very low in the Southern Tier counties, with the exception of areas near Elmira and Corning.
Population by Socioeconomic Status

To enable analysis of socioeconomically-related health disparities, each ZIP code was assigned a socioeconomic status (SES) ranking with 1 being the lowest SES and 5 the highest. The SES rankings are indexed to upstate New York and are based on a variety of socioeconomic indicators from the American Community Survey including average income, poverty rates, education levels, housing value and homeownership. The lower SES ZIP codes tend to have lower average income, higher poverty rates, lower prevalence of college degrees, etc.

Source: NYSDOH Vital Stats; Common Ground Health Analysis
It is important to understand the relationship between racial/ethnic and socioeconomic disparities, which are tightly intertwined. As the top chart indicates, while the white (not Latino) population is fairly well distributed across all 5 SES groups, African-American and Latino populations are highly concentrated in the lowest SES ZIP codes. The chart on the bottom shows that when looking at SES groups 2-5, the vast majority of the population is white. Within SES1, the white population is a bit less than half (46 percent), followed by African-Americans (34 percent) and Latinos (16 percent).
Urban / Rural Classification

To enable the analysis of geographically-related health disparities throughout this report, each ZIP code was labeled urban, suburban, or rural. The designations were driven by the USDA’s Rural-Urban Commuting (RUCA) codes, which were developed based on population density, urbanization and daily commuting patterns. For this health equity analysis, ZIP codes with RUCA 2-10 are designated as rural areas. The USDA’s RUCA 1 ZIP codes in Rochester and Elmira are designated as Urban areas, and the other RUCA 1 ZIP codes are designated as suburban.

Source: USDA Rural-Urban Commuting (RUCA) codes; Common Ground Health Analysis
As the top chart below shows, suburban ZIP codes are home to the largest portion of the region’s population, with roughly 3 times the urban population. While whites represent the large majority in rural and suburban areas, they are slightly less than half (47 percent) of the urban population. The chart on the bottom shows that while African-American and Latino populations are concentrated in urban ZIP codes, a large portion of those populations are also in suburbs and, to a lesser extent, rural areas.
Chapter 2: Premature Mortality

Premature Mortality Rates by ZIP Code

There are large disparities in the rate of premature mortality across the region. In some ZIP codes, the rate of Years of Potential Life Lost (YPLL) is more than 50 percent greater than the region average. Notably, within the City of Rochester a majority of the population lives in ZIP codes with this much higher rate of premature mortality. As subsequent analysis will show, much of the disparity in premature mortality rates is explained by racial/ethnic and socioeconomic inequities.
Premature Mortality Rates by Race/Ethnicity

For the nine-county Finger Lakes region, the overall YPLL rate has decreased since 2000, driven by reductions for both African-Americans and Latinos. While the Latino gap (vs. white) has largely closed, the African-American disparity remains very large. The most recent data show a slight rise overall, including marked increases for African-Americans and Latinos. These are troubling trends that should be monitored closely.

The rates of YPLL are higher for men than women across all three racial/ethnic groups. And the African-American disparity is persistent for both men and women.
Premature Mortality Rates by Socioeconomic Status

Over the last 15 years, the region’s YPLL rate has declined overall. The biggest improvements have come from the lowest SES areas (1 and 2), although there remains a large disparity between the lower and higher SES groups. Most recently, the YPLL rate has increased slightly, driven by SES 1 and 2.

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health
The chart below looks at premature mortality (YPLL) rates by race/ethnicity and socioeconomic status (SES) simultaneously. The data show a strong relationship between SES and premature mortality. YPLL rates are significantly higher in low SES areas. In addition, there are much higher rates of YPLL for African-Americans compared to white and Latinos at the same SES levels. YPLL rates for Latinos are notably lower than for whites. These racial/ethnic patterns are consistent with national data.

Source: NYSDOH Vital Statistics for Finger Lakes nine county region; Age-Sex Adjusted Analysis by Common Ground Health
Premature Mortality Rates by Geography

The urban YPLL rate is much higher than either suburban or rural. The urban rate has also changed the most over the last 15 years. In general, the urban YPLL rate has declined significantly since 2000, although it has notably increased over the most recent two years with available data. The rural YPLL rate has remained consistently a little higher than the suburban rate.

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health
Looking at premature mortality rates by SES and geography simultaneously shows a strong relationship between SES and premature mortality. YPLL rates are significantly higher in low SES areas. In addition, within SES groups 1-3, the urban population has significantly higher YPLL rates than their suburban or rural peers. On the other hand, there does not appear to be a clear disparity in the rural areas beyond what is explained by socioeconomic status. In general, the YPLL rates by SES are similar between rural and suburban.

Source: NYSDOH Vital Statistics for Finger Lakes nine county region; Age-Sex Adjusted Analysis by Common Ground Health
A Focus Area of eight contiguous ZIP codes across the city of Rochester was identified by the African-American Health Coalition as needing special attention. This area was selected due to high concentration of African-Americans in particular and people of color in general. Within the Focus Area, non-Latino whites comprise only 29 percent of the population, compared to 85 percent in the balance of the county.

The impact of place is clear when looking at the rates of premature mortality for the Focus Area compared to other SES 1 ZIP codes in the region. For each of the racial/ethnic populations, the YPLL rate is significantly higher in the Focus Area. This disparity is likely due to the compounding effect of risk factors that are concentrated in these low socioeconomic urban neighborhoods.
Chapter 3: Causes of Premature Mortality

Causes of Premature Mortality by Race/Ethnicity

African-American rates of premature mortality are significantly higher for many of the top causes of death. The largest disparity is in the YPLL rate from heart disease, which is nearly 150 percent higher for African-Americans compared to whites. It is also notable that homicide is the third leading cause for African-Americans, while only a small factor for white and Latino populations. Deaths from premature birth disorders are also a much larger problem for African-Americans than other groups.

There are some exceptions to this pattern. For example, whites have the highest rates of premature mortality from suicide and chronic lower respiratory disease (driven by COPD), and Latinos have the highest rate due to chronic liver disease.
For the white population, the rate of premature mortality rose slightly from 4,816 to 4,731 years of potential life lost (per 100K population) when comparing 2013-2015 to the prior three years. The biggest driver of the increase was drug overdoses. On the other hand, there were reductions in the YPLL rates for the three top causes: cancer, heart disease, and accidents.

### Years of potential life lost rates by cause: white (not Latino) 2013-2015 vs. 2010-2012

<table>
<thead>
<tr>
<th>Cause</th>
<th>2013-2015</th>
<th>2010-2012</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>1,153</td>
<td>1,212</td>
<td>(59)</td>
</tr>
<tr>
<td>Heart</td>
<td>605</td>
<td>637</td>
<td>(33)</td>
</tr>
<tr>
<td>Unintentional Injury (not substance abuse)</td>
<td>392</td>
<td>427</td>
<td>(35)</td>
</tr>
<tr>
<td>Drug Overdose (not suicide)</td>
<td>340</td>
<td>259</td>
<td>82</td>
</tr>
<tr>
<td>Suicide</td>
<td>319</td>
<td>282</td>
<td>37</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Disease</td>
<td>123</td>
<td>108</td>
<td>15</td>
</tr>
<tr>
<td>Premature Birth Disorders</td>
<td>117</td>
<td>110</td>
<td>7</td>
</tr>
<tr>
<td>Diabetes</td>
<td>116</td>
<td>83</td>
<td>33</td>
</tr>
<tr>
<td>Chronic Liver</td>
<td>105</td>
<td>96</td>
<td>9</td>
</tr>
<tr>
<td>Stroke</td>
<td>93</td>
<td>92</td>
<td>1</td>
</tr>
<tr>
<td>Mental Diseases and Disorders</td>
<td>78</td>
<td>59</td>
<td>19</td>
</tr>
<tr>
<td>Flu &amp; Pneumonia</td>
<td>75</td>
<td>70</td>
<td>5</td>
</tr>
<tr>
<td>Other Perinatal Conditions</td>
<td>67</td>
<td>69</td>
<td>(2)</td>
</tr>
<tr>
<td>Pregnancy/Delivery Complications (baby death)</td>
<td>49</td>
<td>66</td>
<td>(16)</td>
</tr>
<tr>
<td>Homicide</td>
<td>46</td>
<td>70</td>
<td>(24)</td>
</tr>
<tr>
<td>Kidney</td>
<td>34</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>Overweight &amp; Obesity</td>
<td>32</td>
<td>35</td>
<td>(4)</td>
</tr>
<tr>
<td>HIV</td>
<td>16</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>1,055</td>
<td>1,005</td>
<td>49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,816</strong></td>
<td><strong>4,731</strong></td>
<td><strong>85</strong></td>
</tr>
</tbody>
</table>

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground

Rates shown are per 100K population
The African-American rate of premature mortality in 2013-2015 was significantly lower than the prior three years, dropping from 8,870 to 8,375 years of potential life lost (per 100K population). The biggest reductions were in the YPLL rates from cancer and unintentional injuries. Homicides and deaths due to overweight/obesity had the largest rate increases.

**Years of potential life lost rates by cause: African-American 2013-2015 vs. 2010-2012**

<table>
<thead>
<tr>
<th>Cause</th>
<th>2013-2015</th>
<th>2010-2012</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>1,375</td>
<td>1,602</td>
<td>(227)</td>
</tr>
<tr>
<td>Heart</td>
<td>1,488</td>
<td>1,522</td>
<td>(33)</td>
</tr>
<tr>
<td>Homicide</td>
<td>963</td>
<td>795</td>
<td>168</td>
</tr>
<tr>
<td>Premature Birth Disorders</td>
<td>451</td>
<td>493</td>
<td>(43)</td>
</tr>
<tr>
<td>Unintentional Injury (not substance abuse)</td>
<td>373</td>
<td>646</td>
<td>(273)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>261</td>
<td>256</td>
<td>5</td>
</tr>
<tr>
<td>Drug Overdose (not suicide)</td>
<td>249</td>
<td>195</td>
<td>54</td>
</tr>
<tr>
<td>Other Perinatal Conditions</td>
<td>190</td>
<td>180</td>
<td>10</td>
</tr>
<tr>
<td>Stroke</td>
<td>164</td>
<td>242</td>
<td>(77)</td>
</tr>
<tr>
<td>Suicide</td>
<td>152</td>
<td>206</td>
<td>(54)</td>
</tr>
<tr>
<td>Kidney</td>
<td>150</td>
<td>228</td>
<td>(78)</td>
</tr>
<tr>
<td>Overweight &amp; Obesity</td>
<td>146</td>
<td>51</td>
<td>95</td>
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<tr>
<td>Pregnancy/Delivery Complications (baby death)</td>
<td>137</td>
<td>83</td>
<td>55</td>
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<tr>
<td>HIV</td>
<td>113</td>
<td>158</td>
<td>(46)</td>
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<tr>
<td>Flu &amp; Pneumonia</td>
<td>112</td>
<td>116</td>
<td>(3)</td>
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<tr>
<td>Chronic Lower Respiratory Disease</td>
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<td>137</td>
<td>(29)</td>
</tr>
<tr>
<td>Mental Diseases and Disorders</td>
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<td>120</td>
<td>(18)</td>
</tr>
<tr>
<td>Chronic Liver</td>
<td>67</td>
<td>96</td>
<td>(29)</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>1,773</td>
<td>1,744</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,375</strong></td>
<td><strong>8,870</strong></td>
<td>(495)</td>
</tr>
</tbody>
</table>

*Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground
Rates shown are per 100K population*
The rate of premature mortality for the Latino population rose from 5,040 years of potential life lost (per 100K population) in 2010-2012, to 5,182 in 2013-2015. The largest increases were in the YPLL rates from heart disease and drug overdoses, although a variety of other causes also experienced higher rates. These increases were somewhat offset by significant reductions in the YPLL rates from homicide and suicide.

### Years of potential life lost rates by cause: Latino
#### 2013-2015 vs. 2010-2012

<table>
<thead>
<tr>
<th>Cause</th>
<th>2013-2015</th>
<th>2010-2012</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>1,116</td>
<td>1,122</td>
<td>(6)</td>
</tr>
<tr>
<td>Heart</td>
<td>733</td>
<td>603</td>
<td>130</td>
</tr>
<tr>
<td>Unintentional Injury (not substance abuse)</td>
<td>321</td>
<td>271</td>
<td>50</td>
</tr>
<tr>
<td>Drug Overdose (not suicide)</td>
<td>298</td>
<td>237</td>
<td>61</td>
</tr>
<tr>
<td>Premature Birth Disorders</td>
<td>217</td>
<td>190</td>
<td>27</td>
</tr>
<tr>
<td>Diabetes</td>
<td>168</td>
<td>139</td>
<td>30</td>
</tr>
<tr>
<td>Chronic Liver</td>
<td>140</td>
<td>151</td>
<td>(12)</td>
</tr>
<tr>
<td>Homicide</td>
<td>132</td>
<td>236</td>
<td>(104)</td>
</tr>
<tr>
<td>Stroke</td>
<td>131</td>
<td>105</td>
<td>26</td>
</tr>
<tr>
<td>Kidney</td>
<td>102</td>
<td>112</td>
<td>(10)</td>
</tr>
<tr>
<td>Suicide</td>
<td>93</td>
<td>217</td>
<td>(124)</td>
</tr>
<tr>
<td>Flu &amp; Pneumonia</td>
<td>74</td>
<td>108</td>
<td>(34)</td>
</tr>
<tr>
<td>Other Perinatal Conditions</td>
<td>72</td>
<td>118</td>
<td>(47)</td>
</tr>
<tr>
<td>Mental Diseases and Disorders</td>
<td>72</td>
<td>43</td>
<td>29</td>
</tr>
<tr>
<td>Pregnancy/Delivery Complications (baby death)</td>
<td>70</td>
<td>142</td>
<td>(72)</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Disease</td>
<td>63</td>
<td>40</td>
<td>23</td>
</tr>
<tr>
<td>HIV</td>
<td>21</td>
<td>30</td>
<td>(9)</td>
</tr>
<tr>
<td>Overweight &amp; Obesity</td>
<td>17</td>
<td>20</td>
<td>(3)</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>1,342</td>
<td>1,156</td>
<td>186</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,182</strong></td>
<td><strong>5,040</strong></td>
<td><strong>142</strong></td>
</tr>
</tbody>
</table>

*Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground*

*Rates shown are per 100K population*
There are some notable patterns in cause-specific disparities when comparing the African-American and Latino premature mortality rates to the white rates in the charts below. First, it is clear that the magnitude of disparities is generally much larger for African-Americans than Latinos. However, the three largest drivers of YPLL disparity are the same: heart disease, homicide and premature birth disorders. It is also worth noting that there are several causes that are smaller for both African-Americans and Latinos compared to whites: suicide, drug overdose, unintentional injuries, and chronic lower respiratory disease (driven by COPD).
The overall YPLL rate for African-Americans is 74 percent higher than it is for white (not Latino) – 8,375 vs. 4,816. The pie chart shows the causes of premature mortality that explain this large disparity. Homicide and heart disease each explain roughly a quarter of the overall disparity. The third leading driver is the significantly higher rate of death from premature birth disorders among the black population. The largest contributors to the ‘other’ category of disparity are: congenital and chromosomal disorders; sarcoidosis; and ill-defined/unknown cause of death.

Source: NYSDOH Vital Statistics; Age-sex adjusted analysis by Common Ground Health
Focusing on the causes of premature mortality for men shows a similar pattern to the overall data. The African-American YPLL rates are significantly higher for several of the top causes of death. In addition, it is striking that for African-American men, the YPLL rate from homicide is only slightly lower than the top cause, heart disease. For Latino men, YPLL rates for top causes such as heart disease, cancer and drug overdoses are a little higher than for white (not Latino) men.
The breakdown of the premature mortality disparity for African-American males is not very different from the breakdown for all African-Americans. Homicide and heart disease account for approximately half of the overall disparity, although homicide is a significantly larger driver of disparity among males. The other major contributing factors are in similar proportion to the overall African-American breakdown. However, it is important to note that the magnitude of the overall YPLL disparity is much larger for men than women, so while heart disease accounts for a smaller portion of the overall disparity for men (21 percent vs. 27 percent for women), the magnitude of the heart disease disparity is larger for men (1,038 YPLL vs. 736 for women).

Source: NYSDOH Vital Statistics, Age-sex adjusted analysis by Common Ground Health
For women, most of the top causes of premature mortality have lower YPLL than seen for men. Cancer is the biggest driver of YPLL for all three populations, with the highest rate for African-American women, and lowest rate for Latinas. It is also notable that the African-American disparity in premature mortality due to heart disease is even larger for women than men. The YPLL rate for black women is 235 percent higher than it is for white (not Latina) women. The rate for Latinas is 32 percent higher than white women.

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health
While cancer is the leading cause of premature mortality for African-American women, heart disease is a larger driver of disparity due to the much higher YPLL rate than non-Latina white women. The breakdown below looks quite different than the male version, primarily because of the reduced, but still significant, prevalence of homicide. It is also important to note that the magnitude of the overall YPLL disparity is much smaller for men than women, so while heart disease accounts for a larger portion of the overall disparity for women (27 percent vs. 21 percent for men), the magnitude of the heart disease disparity is smaller for women (736 YPLL vs. 1,038 for men). The largest contributors to the ‘other’ category of disparity are: congenital and chromosomal disorders; flu & pneumonia; and ill-defined/unknown cause of death.

Source: NYSDOH Vital Statistics, Age-sex adjusted analysis by Common Ground Health
Even when factoring in socioeconomic status, there are significant differences in both the causes and rates of premature mortality. Within the lowest socioeconomic populations (SES1 ZIP codes), African-Americans face double the YPLL rate from heart disease compared to whites. And while homicide is the second leading driver of premature mortality among blacks, it is a much smaller factor for both whites and Latinos. And the YPLL rate from premature birth disorders is more than double for blacks than the other populations.
Causes of Premature Mortality by Socioeconomic Status

There is a clear and strong correlation between socioeconomic status and the rates of specific causes of premature mortality. The YPLL rate from cancer is 83 percent higher for the SES1 population compared to SES5. While the rates due to heart disease are lower than cancer, the disparity is great. The premature mortality rate from heart disease is 225 percent higher for SES1 vs SES5.

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health
The overall YPLL rate for the lowest socioeconomic populations (living in SES1 ZIP codes) is 2.4 times the rate for the highest socioeconomic group (SES5) – 7,994 vs. 3,341. The pie chart shows the causes of premature mortality that explain this large disparity. The top four drivers of the disparity are: heart disease, cancer, homicide and premature birth disorders. Some of the top causes within the ‘other’ category include: kidney disease; other perinatal conditions; and ill-defined/unknown.

### Cause of disparity in rate of years of potential life lost
**SES 1 vs. SES 5**

<table>
<thead>
<tr>
<th>YPLL per 100K population (2013-2015)</th>
<th>Breakdown of YPLL disparity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES 1: 7,994</td>
<td>Heart 17%</td>
</tr>
<tr>
<td>SES 5: 3,341</td>
<td>Pregnancy/Delivery Complications (baby death) 2%</td>
</tr>
<tr>
<td>YPLL Disparity: 4,653</td>
<td>Overweight &amp; Obesity 2%</td>
</tr>
<tr>
<td></td>
<td>Chronic Liver 2%</td>
</tr>
<tr>
<td></td>
<td>Premature Birth Disorders 6%</td>
</tr>
<tr>
<td></td>
<td>Drug Overdose (not suicide) 3%</td>
</tr>
<tr>
<td></td>
<td>Homicide 12%</td>
</tr>
<tr>
<td></td>
<td>Unintentional Injury (not substance abuse) 4%</td>
</tr>
<tr>
<td></td>
<td>Diabetes 4%</td>
</tr>
<tr>
<td></td>
<td>Chronic Lower Respiratory Diseases</td>
</tr>
<tr>
<td></td>
<td>Other/Unknown</td>
</tr>
</tbody>
</table>

Source: NYSDOH Vital Statistics; Age-sex adjusted analysis by Common Ground Health
Large disparities in the rates of premature mortality across the socioeconomic spectrum are also clearly seen within each of the racial/ethnic populations.

Focusing on the white population, the rates of premature mortality from the top causes are highly correlated with socioeconomic status. The YPLL rates for heart disease and cancer are 104 percent and 60 percent higher respectively for the SES 1 vs SES 4/5 population. And the rates due to drug overdoses and unintentional injuries are also much higher for SES 1 vs. SES 2/3/4/5.

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health
For the African-American population, big differences in the causes and rates of premature mortality exist across the socioeconomic spectrum. Most strikingly, it is clear that homicide and premature birth disorders are primarily impacting the lowest socioeconomic group (SES 1). It is also notable that when looking at all of the racial/ethnic and socioeconomic cross-segments, African-Americans in SES 1-3 are the only group in which heart disease is a larger driver of premature mortality than cancer. The YPLL rate from heart disease is 85 percent higher for blacks in SES 1 vs. SES 4/5.

*Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health*
Among Latinos, the same clear pattern of disparity between the lower and higher socioeconomic populations prevails. The YPLL rates for heart disease and cancer are 226 percent and 94 percent higher respectively for the SES 1 vs SES 4/5 population. In addition, drug overdose, homicide and chronic liver disease are top causes of premature mortality for Latinos in SES 1, but not for other socioeconomic segments.
Causes of Premature Mortality by Geography

There are differences in the causes and rates of premature mortality between urban, suburban and rural areas. Much of this disparity is related to the racial/ethnic and socioeconomic differences in the populations. In general, the YPLL rates are highest in urban ZIP codes. As with many other segmentations, the biggest urban disparity is driven by heart disease. The rates for homicide, drug overdose and premature birth disorders are also significantly higher in urban settings. Rural areas have somewhat higher YPLL rates from cancer and heart disease compared to the suburbs and significantly higher YPLL rates from accidents (similar to the urban level.) It is also interesting to note that rural areas have the lowest YPLL rates from drug overdoses.
Chapter 4: Cancer

Premature mortality rates due to cancer have generally decreased over the past 15 years. For African-Americans, the YPLL rate has fallen considerably since 2009, although a significant disparity remains compared to the white population. Among Latinos, the premature mortality rate in recent years is comparable to the early 2000s, and is now similar to whites, whose rate has declined.
Premature Mortality Rates by Type of Cancer

When looking at specific types of cancer, it’s clear that lung cancer not only causes the highest rates of premature mortality but is also the biggest driver of disparity across populations.

For men regardless of race/ethnicity, lung cancer has by far the highest YPLL rates. And the rate is much higher for African-Americans than either whites or Latinos. Liver cancer is another source of significant disparity, especially for Latino males whose premature mortality rate is 4.8 times the white population. The African-American YPLL rate is 3.2 times the white rate. Colorectal cancer is another large driver of premature mortality for men, although the rates are pretty similar across racial/ethnic groups.
Lung cancer is also the biggest driver of premature mortality due to cancer among women. The YPLL rate for African-American women is 19 percent higher than whites. For Latinas, lung cancer has much smaller impact, with a smaller YPLL rate than both breast and colorectal cancer. Breast cancer is the #2 cause for white and African-American women and the top cause for Latinas. The breast cancer YPLL rate is significantly higher for African-American women. Colorectal cancer is the third leading cause overall, and both African-American and Latina rates are higher than the rate for white women.
To highlight the socioeconomic impact on premature mortality from cancer, the chart below shows the YPLL rates for the top forms of cancer by SES level for the white (not Latino) population. Lung cancer is by far the largest cause of premature mortality and also the primary driver of disparity for lower SES whites. This is in contrast to the similar YPLL rates across the SES spectrum from other leading forms of cancers such as breast and colorectal cancers.

![Chart showing top causes of years of potential life lost by socioeconomic status (2010-2015) - White (not Latino).](image)
Lung Cancer

Over the past 15 years, premature mortality rates from lung cancer have declined significantly for the white and black populations, with the black YPLL rate remaining 31 percent higher than the white rate. The Latino rate in most recent years (2013-2015) is lower than the early 2000s, but their rate has jumped up and down a bit, always staying beneath the white rate.

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health
The disparity in premature mortality from lung cancer between low and high socioeconomic populations is larger than the racial/ethnic disparity. While the YPLL rate has declined the most for SES 1 over the past 15 years, it remains 160 percent higher than the rate for SES 4 and 5.

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health.
This chart highlights the strong disparity in lung cancer across the socioeconomic spectrum. For all three racial/ethnic groups, the YPLL rate is much higher among the SES 1 population compared to SES 4 and 5. Notably, the rates at each SES level are fairly similar for the white and black populations, and significantly lower for Latinos. This suggests that the overall disparity in lung cancer YPLL seen for African-Americans in the last set of bars is explained primarily by the population’s concentration in SES 1.

Source: NYSDOH Vital Statistics for Finger Lakes nine county region; Age-Sex Adjusted Analysis by Common Ground Health
The left-most chart below compares the incidence rate for lung cancer across the racial/ethnic groups. African-Americans have the highest incidence rates, and Latinos have the lowest. This is the same pattern seen in the premature mortality (YPLL) rates shown in the middle chart. The third chart shows that African-Americans and Latinos experience somewhat higher rates of YPLL for each incidence of lung cancer. In other words, among those diagnosed with lung cancer, African-Americans and Latinos are more likely to die from that cancer at an early age than are whites.
Breast Cancer

The rates of premature mortality from breast cancer have declined for both white and black women over the past 15 years, although the disparity has grown a bit larger. The volume of breast cancer deaths among the regional Latina population is too small to analyze.
Over the past 15 years the socioeconomic disparity in premature mortality from breast cancer has been significantly reduced. Unlike many other causes of death, the socioeconomic disparity is much smaller than the racial/ethnic disparity faced by African-Americans in particular.

![Breast cancer: years of potential life lost rate by socioeconomic status](image)

Source: NYSDOH Vital Statistics; Age-Sex Adjusted Analysis by Common Ground Health
When looking at premature mortality rates from breast cancer by race/ethnicity and SES at the same time, a few patterns emerge. First, the YPLL rates for African-Americans are much higher at each SES level, driving a significant overall disparity for the population. Second, unlike most other causes of death, the YPLL rates are not significantly higher for SES 1. And for African-Americans, the rates jump significantly for the mid- and high-SES groups.

Source: NYSDOH Vital Statistics for Finger Lakes nine county region; Age-Sex Adjusted Analysis by Common Ground Health
The first chart below compares the incidence rate for breast cancer across the racial/ethnic groups. White women have the highest incidence rates, and Latinas have the lowest. This contrasts with the premature mortality (YPLL) rates shown in the middle chart, which shows black women with the highest YPLL rate, and whites with the lowest. Putting the data together, the third charts shows that black and Latina women face significantly higher rates of YPLL for each incidence of breast cancer. In other words, white women are diagnosed more frequently with breast cancer, but the disease is more deadly among Latinas and black women.
Breast cancer screening rates are a bit lower for low income, Latina and rural populations according to self-reported data from the 2016 NYS BRFSS. Some of this disparity is likely driven by insurance coverage – screening rates are significantly higher for those covered by private insurance compared to Medicaid enrollees and the uninsured.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
The map below shows how breast cancer screening rates vary by neighborhood across the City of Rochester. Based on these census tract-level estimates from the CDC, the tracts in the center of the Focus Area* and city have the largest gap in mammography screening for 50-74 year old women. Overall, the screening rate in the Focus Area is 75 percent, which is only slightly lower than the 77 percent rate for the rest of the city.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Colorectal Cancer

The left-most chart below shows that African-Americans have higher incidence rates of colorectal cancer than whites or Latinos. This is a similar pattern as the premature mortality (YPLL) rates shown in the middle chart. The third chart shows that all three racial/ethnic groups experience similar rates of YPLL for each incidence of colorectal cancer.

![Colorectal cancer incidence and years of potential life lost rates by race/ethnicity chart]

Source (incidence rates): NYS Cancer Registry; Data are age-adjusted
Source (YPLL rates): NYSDOH Vital Statistics for Finger Lakes nine-county region, Age- and Sex-Adjusted Analysis by Common Ground Health
The biggest disparity in colorectal screening rates is among Latinos, according to the 2016 NYS BRFSS. There are also lower rates among the lower income and rural populations. Insurance is an important factor, as those with private insurance have significantly higher screening rates than Medicaid enrollees or the uninsured.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Cervical Cancer

The first chart below shows that Latinos have the highest incidence rates of cervical cancer. This is consistent with the higher rates of premature mortality (YPLL) seen in the middle chart. The third chart compares the YPLL rate per incidence of cervical cancer, which interestingly is the highest for the white population.

Source (incidence rates): NYS Cancer Registry; Data are age-adjusted
Source (YPLL rates): NYSDOH Vital Statistics for Finger Lakes nine county region; Age-Set Adjusted Analysis by Common Ground Health
There is less variation in cervical screening rates across populations than seen for other type of cancer screening. However, there are significant differences based on income and insurance coverage.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Prostate Cancer

Screening rates for prostate cancer are generally lower than screening for other types of cancer. And there are significant differences across populations. Screening rates are significantly higher among higher income men. Men covered by Medicaid are half as likely to be screened as those with private insurance, and the uninsured are even less likely. Latinos are also significantly less likely to be screened than white men. (Sample size was too small to assess the screening rate for black men.)

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Chapter 5: Chronic Conditions

General Physical Health & Limitations

Low to middle income individuals are much more likely to self-report persistent poor physical health ("not good" for 14 or more days in prior month). Despite the fact that the African-American and Latino populations are concentrated in the lower income ranges, there was no significant difference in their likelihood to report persistent poor physical health compared to whites. Medicaid recipients were much more likely to report 14 or more days of poor physical health than the privately insured.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Low income and Medicaid populations are significantly more likely to report activity limitations due to physical, mental or emotional problems. The racial/ethnic and geographic differences are not statistically significant.

Activity limitations by income
Finger Lakes region

Activity limitations by race/ethnicity
Finger Lakes + Western NY regions

Activity limitations by geography
Finger Lakes region

Activity limitations by insurance
Finger Lakes + Western NY regions

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
The same populations are more likely to report difficulty doing errands alone (such as visiting a doctor’s office or shopping) due to physical, mental or emotional problems.

Errand limitations by income
Finger Lakes region

Errand limitations by race/ethnicity
Finger Lakes + Western NY regions

Errand limitations by geography
Finger Lakes region

Errand limitations by insurance
Finger Lakes region

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Heart Disease

Premature mortality rates from heart disease have generally decreased over the past 15 years in the Finger Lakes region. However, in recent years, the rates for African-Americans and Latinos have stayed flat or even risen a bit. And there remains a very large disparity between the black and white populations.
All SES groups had lower heart disease YPLL rates in 2015 than in the early 2000s. However, the improvements have leveled off, and the lower SES groups (1 and 2) have been flat or rising slightly. It’s also important to highlight the large disparity across the SES spectrum.

The chart below shows that not only is there a clear relationship between SES and premature mortality due to heart disease, but there is also a very strong additional disparity faced by the black population. It’s notable that the YPLL rate for African-Americans in SES 4 is higher than the rates for whites and Latinos in SES 1.
Self-reported high blood pressure condition rates from the BRFSS survey are significantly higher among low income populations compared to the high income segments. The smaller variations across racial/ethnic, geographic, and insurance segments are not statistically significant.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Within the City of Rochester, the prevalence of high blood pressure varies considerably by neighborhood. The map below is based on census tract-level estimates from the CDC. The highest rates of hypertension are in the tracts southwest and north of the city center.

Source: CDC 500 Cities Project. CDC BRFSS 2015
Of those who have been told they have high blood pressure, most self-report that they are currently taking medicine for the condition. Interestingly, the medication rate is higher within lowest income segment compared to the highest income segment. The other significant differences are the very low rate for the uninsured, and the lower rate among the rural compared to the urban population.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 99% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Since 2010 the High Blood Pressure Collaborative has led multiple clinical and community initiatives to help patients manage hypertension. There are over 170 practices currently engaged in the program. The charts below show significant disparities in the hypertension control rates for African-Americans, Latinos and people living in ZIP codes with low socioeconomic status.

There are also significant disparities in the proportion of patients with dangerously high blood pressure of 160/100 or higher. The African-American rate (10.1 percent) and Latino rate (7.1 percent) are both much higher than the white rate (4.0 percent). And similarly, the rates for readings of 160/100 or above are highest among the low socioeconomic status populations.
Diabetes

Diabetes is highly correlated with income. Among adults aged 35 and older, the diabetes rate in the lowest income segment (under $20K) is triple the rate in the highest income segment. The rates below are based on survey respondents indicating they’ve been told by a health professional that they have diabetes. Diabetes prevalence is also much higher among Medicaid enrollees compared to the privately insured.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Within the City of Rochester, the prevalence of diabetes varies considerably by neighborhood. The map below is based on census tract-level estimates from the CDC. Within the Focus Area* tracts, 14.3 percent of adults report being told by a health professional that they have diabetes, which is 82 percent higher than the rate in the rest of the city (7.8 percent).

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
There is a large racial/ethnic disparity in the rate of preventable inpatient (PQI) visits due to diabetes. The African-American rate (497) was over four times the white rate (118) in 2016. The Latino rate (339) is nearly three times the white rate. And unfortunately the disparity has grown over the last 15 years. Compared to 2000, the African-American and Latino PQI rates have risen, while the white rate has remained flat.

![Graph showing diabetes preventable (PQI) inpatient visit rate by race/ethnicity for the Finger Lakes nine county region.](source: NYS DOH SPARCS; Age-Sex adjusted analysis by Common Ground Health)
The data below document a clear socioeconomic disparity. The diabetes PQI rates are lower for the higher SES groups. The top chart also shows that the racial/ethnic disparity is above and beyond any socioeconomic effect. At each SES level, the PQI rates for the black and Latino populations is higher than the white rates. This is particular true for African-Americans – their highest SES population experiences a higher PQI rate than the lowest white SES group. The bottom chart shows particularly high rates for the urban population (related to urban racial/ethnic mix). The rural rates are comparable or below the suburban rates.
The map below puts a spotlight on the areas that have the highest rates of preventable inpatient visits (PQIs) due to diabetes. In addition to some ZIP codes in Rochester, the hot spots include the areas near Elmira, Corning, Seneca Falls and Mount Morris.
While it is expected that the rates of preventable inpatient visits (PQIs) due to diabetes would be higher in the areas and among populations with higher prevalence of diabetes, the PQI rate disparity is larger than can be explained by diabetes prevalence alone. The charts below compare the Focus Area* census tracts to the other tracts within the City of Rochester and show that the PQI rate disparity is proportionally larger than the prevalence disparity. This means that on average, the people with diabetes in the Focus Area are 20 percent more likely to have preventable hospitalization. This may be caused by differences in several factors: the severity of the condition; the ability to manage their condition; and, access to other clinical care that could prevent the need for hospitalization.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
There is some variation in diabetes test rates across populations. Survey respondents were asked if they had a test for high blood sugar or diabetes within the past three years. The only statistically significant differences are the much lower rate for the uninsured compared to the privately and Medicaid insured, and the lowest income segment compared to the highest income segment.

![Diabetes testing by income](image1)

**Diabetes testing by race/ethnicity**

![Diabetes testing by race/ethnicity](image2)

**Diabetes testing by geography**

![Diabetes testing by geography](image3)

**Diabetes testing by insurance**

![Diabetes testing by insurance](image4)

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Obesity

The prevalence of obesity is significantly higher among African-Americans than white non-Latinos. In addition, obesity is more prevalent among the lowest income segment and the rural population (compared to suburban). These charts are based on body mass index as calculated from self-reported height and weight data.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Within the City of Rochester, the prevalence of obesity varies considerably by neighborhood. The map below is based on census tract-level estimates from the CDC. The pattern is similar to data for hypertension and diabetes. The adult obesity rate in the Focus Area* tracts is 39 percent, compared to 28 percent in other areas of the city.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Disparities in obesity rates are apparent at an early age. Even among elementary school students, there are much higher rates of obesity in the low SES areas. And both urban and rural districts have significantly higher prevalence of obesity than suburban districts. The pattern is the same among middle and high school students.
Asthma

The prevalence of adult asthma varies meaningfully across populations. Asthma is much more common among the low income and Medicaid populations. The self-reported data in the NYS BRFSS survey also shows significantly higher prevalence for Latinos compared to non-Latino whites.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016;
Analysis by Common Ground Health (responder data weighted to estimate actual population composition)
shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
The map of CDC estimates below shows significantly higher rates of adult asthma in the Focus Area* tracts, compared to the rest of the city of Rochester. On average, the prevalence of adult asthma is estimated to be nearly 26 percent higher in the Focus Area compared to the rest of the city.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Even more striking is the difference in the rate of asthma-driven emergency department (ED) visits among adults. Analysis of hospital data from 2013-2015 showed the rate within the Focus Area* (1,563) was 3.5 times the rate for the rest of the city (447). The much larger disparity in the ED visit rate (compared to the disparity in asthma prevalence), suggests that within the Focus Area, people with asthma are less able to manage their chronic illness.

Asthma-driven adult ED visit rate 2013-2015
(per 100K population)

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Combining the asthma prevalence and ED visit data illustrates the large disparity in the ability to manage the chronic condition among the Focus Area* population. While adults in the Focus Area are more likely to have asthma compared to adults elsewhere in Rochester, the Focus Area’s much higher ED visit rate can’t be explained by prevalence alone. The other major factor is that Focus Area residents with asthma are much more likely to need and seek ED care because of their asthma. The number of asthma-driven ED visits per adult with asthma is 2.8 times higher in the Focus Area compared to the rest of the city – 36.0 vs. 12.9 visits per 100 people with asthma.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
The rate of ED visits due to asthma are much higher for African-American and Latino populations regardless of location or socioeconomic status. The rates for African-Americans in suburban and high SES areas are more than double white rates in urban and low SES areas. For Latinos more so than African-Americans, the visit rates are much lower in higher SES areas.
The chart below is based on analysis of insurance claims data for people with asthma. Consistent with the implications of the two prior maps, this data shows that Focus Area* residents with asthma are much more likely to wind up in the ED due to asthma events than people elsewhere in Monroe County or the region.

**% of asthma patients with ED visit (asthma-driven)**

- **Children**
  - Focus Area: 14.9%
  - Rest of Monroe County: 7.9%
  - Other Counties: 4.9%

- **Adults**
  - Focus Area: 9.4%
  - Rest of Monroe County: 2.8%
  - Other Counties: 2.7%

All location-based differences are statistically significant (p<0.01) except pair A (not significant).

*The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.*
When looking at claims for medications aimed at controlling asthma and preventing symptom flare-ups, there are lower rates in the Focus Area*. For control inhalers, the rate is just a bit lower than Monroe County and roughly the same as the other counties. For oral corticosteroids, there is a more significant gap from the rest of the county, particularly for children. And interestingly, use of corticosteroids appears even higher in the other counties.

The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
In contrast with control medications, there is a higher rate of rescue inhaler claims in the Focus Area* compared to the other areas. A hypothesis to explain the difference is that the control medications may be viewed as more discretionary, and therefore deprioritized among families that need to make tough choices about spending limited resources, such as time and money, on prescriptions.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
COPD

Lower income and Medicaid populations are significantly more likely to report that they’ve been told they have chronic pulmonary disease (COPD), emphysema or chronic bronchitis. While the survey results show somewhat higher rates among the rural and white populations, these differences are not statistically significant.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Chapter 6: Infant Mortality and High Risk Pregnancy

Infant Mortality

Across the Finger Lakes region, infant mortality rates for African-Americans and Latinos have declined since 2010. However, both groups continue to experience significant disparities compared to non-Latino whites. The three-year average (2013-2015) infant mortality rate for African-Americans was 13.2, nearly three times the white rate.
Consistent with the region overall, Monroe County has a large infant mortality disparity for African-Americans. The African-American infant mortality rates are by far the highest in each geographic area. And although the African-American rate is lower in the suburbs than the city, their suburban rate is still nearly double the white rate in the Focus Area*, which includes some of the most vulnerable neighborhoods in the city. Within the Focus Area, the Latino infant mortality rate is double the white rate, but elsewhere in the city and in the suburbs there is no significant difference.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
The geographic and racial/ethnic disparities in infant mortality rates are consistent with the premature mortality data (chapter 3) which showed disparities in the YPLL rates due to premature birth disorders. An examination of infant deaths within Monroe County shows that the largest driver of infant mortality is prematurity and related conditions.
The chart below shows that prematurity is a major driver of the overall disparity in infant mortality. The significantly higher infant mortality rate in the Focus Area* compared to the rest of Rochester is explained entirely by prematurity and related conditions – there is no significant difference in the mortality rate for other causes. In the suburbs compared to the city, the infant mortality rate due to prematurity is even lower, as is the rate for other causes.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Premature Birth Rates

Across the Finger Lakes region, premature birth rates are highest in ZIP codes with the lowest socioeconomic status. The urban rate is significantly higher than both suburban and rural areas, which is consistent with the concentration of urban poverty.

Source: New York State Vital Statistics Data; ZIP-level analysis by Common Ground Health
The map below highlights the ZIP codes with the lowest and highest premature birth rates. Some of the highest rates are in the City of Rochester, although there are also some rural areas with notably high premature birth rates.
Within Monroe County, there is a significant difference in the premature birth rates based on location, and the rates have not changed much over the past 10 years. In 2015 within the Focus Area*, the premature birth rate was 14.7 percent, compared to 10.9 percent in the rest of Rochester, and 8.5 percent in the suburban areas.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Premature birth rates vary not only by location within Monroe County, but also by race and ethnicity. Across Monroe County, the African-American and Latina premature birth rates are significantly higher than for whites. It is striking that while the rates are generally lower in the suburbs, for African-American women, the suburban rate is the same as the white rate in the Focus Area* of the city. The rates of very preterm births (<32 weeks) show a similar pattern, and it is notable that the level of disparity is larger when focused on the very preterm birth rates.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
And regardless of location, premature birth rates are higher for teen mothers. The disparity faced by teen mothers is particularly large when focused on the very preterm birth rates. The county-wide teen rate for very preterm births is 3.6 percent, which is 80 percent higher than the rate for older mothers.
Teen Pregnancy and Birth Rates

Across Monroe County, teen birth rates have fallen considerably over the past 10 years, especially within the Focus Area* and other parts of Rochester where they have fallen over 40 percent since 2007. However, the birth rates within the city remain much higher than the suburbs, and as the subsequent charts show, there are large differences by race/ethnicity as well.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
The charts below show pregnancy and birth rates among older teens by race/ethnicity in different parts of the county. A couple of patterns are striking. First, for each racial/ethnic group, the pregnancy and birth rates are much higher in the Focus Area* compared to the rest of Rochester and the suburbs. However, the racial/ethnic disparity grows as the lens is moved from Focus Area to rest of Rochester to the suburbs. Within the Focus Area, white 18-19 year olds have comparable, if not higher, rates than Latinas and blacks. But the white rates are much lower elsewhere in Monroe County.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
While the pregnancy and birth rates among younger teens (10-17 year olds) is much smaller than for older teens, the patterns are the same. For each racial/ethnic group, the rates are highest in the Focus Area* and lowest in the suburbs. And while the rates across race/ethnicity within the Focus Area are fairly similar, there are large disparities elsewhere in the county between blacks/Latinas and whites.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
**Prenatal Care**

Across the Finger Lakes region, large disparities persist in the receipt of early prenatal care. While the gap has shrunk in recent years, the percentage of white women receiving prenatal care during the first trimester remains significantly higher than Latinas or African-American women.

![First trimester prenatal care by race/ethnicity](chart)

*Source: NYSDOH Vital Statistics; Analysis by Common Ground Health*
Chapter 7: Substance Use Disorders and Overdoses

Alcohol-Related Disorders

Higher income residents are more likely to have recently engaged in binge drinking. The data show the percent of respondents who had four or five (for females or males) drinks on one occasion at least once in the past 30 days. Aside from the differences by income, the only other statistically significant difference is between the privately and Medicaid insured populations.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Inpatient visit rates for alcohol-related disorders have risen slightly over the past 15 years. The rate for African-Americans has consistently remained much higher than the white and Latino rates.

Source: NYSDOH SPARCS; Age-Sex adjusted analysis by Common Ground Health
Note: Includes visits with primary or secondary behavioral health diagnosis
Overall, African-Americans have a much higher rate of inpatient visits related to alcohol use disorders than whites or Latinos. The pattern is consistent in urban, suburban, and rural areas – the black rate is always the highest by a wide margin, and the white and Latino rates are fairly similar in each type of geography. It’s interesting to note that while African-Americans have the highest hospitalization rates related to alcohol use disorders, it is the Latino population that has the highest rates of premature mortality due to liver cancer and chronic liver disease. An additional point to note is the fairly similar rates between suburban and rural groups.
Among Monroe County high school students, the binge drinking rate is the highest among the white (not Latino) teens – 17 percent indicated they had four or five (female vs. male) drinks in a row at least once in prior 30 days. This is significantly higher than the African-American rate of 8 percent.

![Engaged in binge drinking one or more times during the past 30 days](image)

*Source: Monroe County Youth Risk Behavior Survey 2017. Analysis by Monroe County Department of Public Health shown with 95% confidence interval bars. Binge drinking defined as 4 or 5 (female/male) drinks of alcohol in a row. Statistically significant differences (95% confidence): White compared to African-American.*
Drug Use Disorders and Overdoses

The rates of inpatient visits related to drug use disorders have grown for all three racial/ethnic groups over the past 15 years. In 2016, the rate for African-Americans was 1,641 per 100 thousand residents, compared to 858 for Latinos and 475 for whites.

![Graph showing substance-related disorders inpatient visit rates by race/ethnicity]

Source: NYSDOH SPARCS for Finger Lakes nine county region; Age-Sex adjusted analysis by Common Ground Health
Note: Includes visits with primary or secondary behavioral health diagnosis
While large differences exist between racial/ethnic groups in the rates of inpatient visits due to drug use disorders, drug overdose mortality rates are fairly similar.

Further segmenting the data into urban/suburban/rural areas provides some additional insights. The inpatient visit and mortality rates are all highest in urban areas. Suburban and rural rates are more comparable to each other. Within urban areas, the drug overdose mortality rate for whites is by far the highest, despite having the lowest rates of inpatient visit due to drug use disorders.
The Monroe County Youth Risk Behavior survey asked high school students if they had been offered, sold or given an illegal drug on school property in the prior year. Latinos were the most likely to respond affirmatively, with 19 percent saying they had. The white and African-American proportions were not significantly different.

Source: Monroe County Youth Risk Behavior Survey 2017. Analysis by Monroe County Department of Public Health shown with 95% confidence interval bars. Statistically significant differences (95% confidence): Latino compared to African-American.
Opioids are the primary cause of drug overdose mortality. The charts below show premature mortality rates from opioid and other drug overdoses across different populations. Overdoses and opioids in particular have the largest YPLL rates in urban and low SES areas. The rates are also much higher for men than women. While African-Americans have lower rates of premature mortality from opioids, they have a higher rate from other drugs. Note that the YPLL rate for African-Americans is lower than the white or Latino rates, despite a higher mortality rate shown above. This is because blacks dying from overdoses tend to be significantly older than the other groups, which is shown in additional data later in this section.
The number of ED and inpatient visits driven by opioid overdoses jumped dramatically in 2016, after a steady climb in prior years. The charts below show large increases across racial/ethnic groups, and across geography. The most recent data shows the highest rates for Latinos and urban areas.
The charts below provide a more detailed view of which populations have the highest incidence of opioid overdoses. The left-hand charts show premature mortality for each racial/ethnic group within the three geographic settings (top chart) and across the socioeconomic spectrum (bottom chart). The right-hand charts show the combined inpatient and ED visit rates for the same population segments. Taken all together, the data show that the highest rates (both YPLL and visits) are for whites in urban and low SES areas. In those same areas, the Latino rates are also very high. The African-American rates have a different pattern and generally don’t vary as much – so their rate is much lower than the white/Latino rates in urban and SES 1 areas.
The charts below breakdown the 2016 opioid overdose visits (ED and inpatient) by type of opioid. Note that this data may not be perfectly accurate due to challenges in identifying specific drugs and mixtures of drugs, but it should be directionally reliable. The charts show that despite the rising prevalence and concerns about heroin and fentanyl, prescription opioids remain a large part of the problem. It is also notable that while all types of opioids have higher rates in the urban areas, the primary driver of the higher urban rates is heroin.

Source: NYSDOH SPARCS for Finger Lakes nine county region; Analysis by Common Ground Health
These charts show the age breakdown for opioid overdose deaths (on top) and opioid overdose ED and inpatient visits (on bottom). The mortality data shows distinct differences between racial/ethnic groups – in particular, African-Americans dying from opioid overdoses are significantly older. While only 27 percent of white and 31 percent of Latino deaths occur at age 50 or older, the corresponding metric for blacks is 52 percent. The inpatient and emergency department data show a similar but less dramatic pattern, with the older population representing a larger portion of the black hospital visits than seen for whites or Latinos.

Source: NYSDOH Vital Statistics for Finger Lakes nine county region; Analysis by Common Ground Health.
To better understand the age breakdown of opioid overdoses, the charts below separate the emergency department and inpatient data for heroin (top) and prescription opioids (bottom). This comparison helps to highlight large differences across racial/ethnic groups. Of the heroin overdoses by whites, only 8 percent are among the 50 years and older group, compared to 44 percent of the black and 20 percent of the Latino heroin overdoses. Another notable difference is the large portion (40 percent) of the Latino prescription opioid overdoses that are by the under 30 population, compared to 17 percent for whites and 14 percent for blacks.
Chapter 8: Behavioral Health

General Mental Health

The charts below show a wide variation in the prevalence of persistent poor mental health, based on data from the 2016 BRFSS. The survey asked respondents how many days in past 30 days was their mental health “not good”, and explained that includes stress, depression and problems with emotions. The percentage of people reporting 14 or more days of poor mental health is clearly correlated with income, including a large disparity for the lowest income group. The prevalence among Medicaid enrollees is higher than among the privately insured. The differences across race/ethnicity and geography are not significant.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
The map below shows the prevalence of persistent poor mental health by census tract in the City of Rochester, based on estimates from the CDC. The highest rates are in the tracts just north and west of Center City and in the middle of the Focus Area*.

*The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Mental health is highly correlated with financial stress. Among people who indicated they are always or usually stressed about having enough money for housing, 38 percent also reported persistent poor mental health. This compares to only 8 percent of those who did not have the same financial stress.

Source: NYSDOH Expanded Behavioral Risk Factor Surveillance System (BRFSS) 2016; analysis of Finger Lakes nine county region by Common Ground Health (responder data weighted to estimate actual population composition); shown with 95% confidence intervals (*indicates highly variable rate with confidence interval half-width greater than 10%).
Behavioral Health-Related Inpatient and ED Visits

Over the past 15 years, the rate of behavioral health-related inpatient visits has increased greatly across populations. The 2016 rate for African-Americans (5,136) remains much higher than the white rate (3,011). The Latino rate grew the quickest, to 3,649. (A visit is considered behavioral health-related if there is a primary or secondary behavioral health diagnosis code.)
The rates have also grown significantly across geographies. The urban rate of behavioral health-related inpatient visits (5,457) remains nearly double the suburban rate (2,856). The rural rate (2,918) has not grown quite as quickly and is now at a comparable level to the suburban rate.
The charts below show a strong correlation between socioeconomic status and behavioral health-related visit rates (both inpatient and ED). In addition, at each SES level, the rates are higher for African-Americans than whites, with a particular disparity in the inpatient visit rates. The Latino rates tend to be similar to the white rates at each SES level, except for the low SES (1 and 2) ED visit rates which are significantly higher.

![Behavioral health-related ED visit rate by socioeconomic status and race/ethnicity (2014-2016)](chart1)

![Behavioral health-related inpatient visit rate by socioeconomic status and race/ethnicity (2014-2016)](chart2)

The following charts also highlight the strong relationship between socioeconomic status and the rates of inpatient and ED visits related to behavioral health. Within SES groups 1-3, the urban population has highest rates of both types of visits. The rural rates are generally comparable to the suburban rates.

![Behavioral health-related ED visit rate by socioeconomic status and geography (2014-2016)](chart3)

![Behavioral health-related inpatient visit rate by socioeconomic status and geography (2014-2016)](chart4)
Among adults, the most common types of behavioral health-related ED inpatient visits are anxiety, depression and stress, and alcohol & substance related disorders. African-Americans generally have higher rates across all types of BH visits, except Latinos have a significantly higher rate of anxiety, depression and stress-related ED visits. Interestingly, there isn’t a parallel large disparity for Latino inpatient visits related to anxiety, depression and stress.

Source: NYSDOH SPARCS; Adults 18+ yrs old; Age-Sex adjusted analysis by Common Ground Health
Note: Visits can be counted in more than one category based on primary and secondary diagnosis codes.
For adults, visit rates for anxiety, depression and stress are significantly higher for females than males. And visit rates for alcohol/substance-related disorders are significantly higher for males. There is less difference in rates for other categories of behavioral health visits.
Anxiety/Depression/Stress

Focusing on anxiety, depression and stress, the inpatient visit rates have increased greatly over the last 15 years. In 2000, the rates were very similar for the three racial/ethnic groups, but in 2016 the African-American rate is 32 percent higher than the white rate. And the Latino rate is in between.

Source: NYS DOH SPARCS; Age-Sex adjusted analysis by Common Ground Health
Note: Includes visits with primary or secondary behavioral health diagnosis
The rates of ED and inpatient visits related to anxiety, depression and stress are clearly correlated to socioeconomic status. The other striking point from the left-hand chart is the much higher rate of ED visits among the low SES (1 and 2) Latino population. For both ED and inpatient visits, African-American rates tend to be a bit higher than the white or Latino rates at the same SES level, except for SES 1 (and SES 2 for ED visits).
The following charts provide a targeted look at the rate of visits related to anxiety, depression and stress within the Focus Area*. With the exception of Latino ED visits and white inpatient visits, the rates are lower in the Focus Area than other SES 1 ZIP codes. This is notable given that many other outcomes and factors are worse within the Focus Area.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
These charts show that the rates of ED and inpatient visit related to anxiety, depression and stress are clearly correlated to socioeconomic status. In addition, in the lower SES groups (1-3), the urban rates are generally the highest. The rural areas have higher rates of ED visits than their suburban counterparts, but lower inpatient rates.

To isolate geographic differences, the data below only looks at white (not Latino) population. The patterns are the same as the mixed race/ethnicity data in the charts above.
The hospital visit rate data related to anxiety, depression, and stress are generally consistent with survey data about the prevalence of depressive disorders. Adult respondents were asked if they’ve ever been told they have a depressive disorder (including depression, major depression, dysthymia, or minor depression). The results below show a high correlation with income, and higher rates among Latinos. It’s also notable how much higher the prevalence of depressive disorders is within the Medicaid population.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016;
Analysis by Common Ground Health (responder data weighted to estimate actual population composition)
shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Behavioral Health Issues Among Youth and Children

Data from the Monroe County Youth Risk Behavior Survey shows that Latino students were significantly more likely to report feeling so sad or hopeless that they stopped doing usual activities. And the second chart shows that both Latino and white students were significantly more likely than African-Americans to report making a specific plan about attempting suicide in the past year.

![Graph showing behavioral health issues among youth and children.](source_image)

*Source: Monroe County Youth Risk Behavior Survey 2017. Analysis by Monroe County Department of Public Health shown with 95% confidence interval bars. Statistically significant differences (95% confidence): Latino compared to African-American and white.*
For children, overall behavioral health-related visit rates are lower than for adults. Anxiety/depression/stress is still a major cause, although ADHD/disruptive behavior disorders are the top cause of ED visits. ED visit rates are higher for African-Americans and Latinos than whites for most types of behavioral health visits. However, for inpatient stays, there is less difference across the race/ethnic groups, and white rates are a bit higher for anxiety/depression/stress and suicide/self-harm.

![Behavioral health-related ED visit rates for children by type of diagnosis & race/ethnicity (2014-2016)](chart1)

![Behavioral health-related inpatient visit rates for children by type of diagnosis & race/ethnicity (2014-2016)](chart2)
Similar to the adult gender data, visit rates for anxiety/depression/stress are much higher for girls compared to boys. On the other hand, boys have significantly higher rates of ADHD/disruptive behaviors and developmental disorders. Also, it’s notable that both the ED and inpatient rates of visits related to suicide/self-harm are much higher for girls than boys. This contrasts with the adult data where the male and female rates are nearly the same.
Health Professional Shortage Areas: Mental Health

Aside from most of the suburbs in Monroe County and the adjoining areas in neighboring counties, the entire region is covered by designated Health Professional Shortage Areas (HPSAs) for Mental Health. The Health Resources & Services Administration identifies geographic HPSAs based on shortages of providers for the entire population in the area. The Schuyler County HPSA has been proposed for withdrawal and may lose its designation.

Source: Health Resources & Services Administration; Updated as of February 2, 2018
Chapter 9: Dental Health

Dentist Visits

There are significant differences in the frequency of dental visits. Within the lowest income segment (under $20K), only 56 percent of adults have been to a dentist in the prior 12 months, compared to 89 percent of adults with income at $75 or above. Urban and rural adults are less likely to have seen a dentist than suburban residents. It’s also notable that the visit rate among Medicaid enrollees (62 percent) is much lower than the privately insured population (79 percent), and not significantly different from the uninsured (58 percent).

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Examining dental visit rates at a census tract level, shows even larger disparities for people living in particular neighborhoods. Within the Focus Area* tracts, only 48 percent of adults have been to a dentist in the past year, compared to 66 percent in the other areas of Rochester.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Preventable Dental Complications

The charts below show several dimensions of dental health disparity. First, both charts show a strong relationship between socioeconomic status and the rates of preventable dental ED visits. Second, it is clear from the top chart that the preventable visit rates are particularly high for African-Americans compared to both the white and Latino rates. And finally, in the lower chart, there is not only a large disparity within the urban SES 1 areas, but in general there are higher rates in the rural areas compared to the suburbs at the same SES levels.

![Preventable dental ED visit rate by socioeconomic status and race/ethnicity (2014-2016)](chart1)

![Preventable dental ED visit rate by socioeconomic status and geography (2014-2016)](chart2)
There is also significant disparities in the removal of teeth due to tooth decay or gum disease. People with income under $50K are much more likely to have teeth removed than those with higher incomes. It is also striking that the prevalence of removed teeth is so much higher for the Medicaid population, even higher than for the uninsured. Teeth removal is also significantly more common in rural areas compared to the suburbs.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Health Professional Shortage Areas: Dental Health

There are four designated dental Health Professional Shortage Areas in the region. The entire City of Rochester, the eastern portion of Wayne County, and the entireties of Steuben and Schuyler counties. The Health Resources & Services Administration identifies geographic HPSAs based on shortages of providers for the entire population in the area.

Source: Health Resources & Services Administration; Updated as of 2/2/2018
Chapter 10: Living Conditions / Social Circumstances

Financial Security

As shown in the behavioral health section, there is a strong connection between financial stress and mental health. People who reported significant concerns about having enough money for housing were much more likely to experience persistent poor mental health (38 percent) compared to those who didn’t have those concerns (8 percent).

And as the charts below show, some populations are much more likely to report concerns about being able to afford housing. Adults were asked how often they were worried or stressed about having enough money to pay their rent/mortgage. The numbers below reflect the respondents who said they were always or usually worried. Not surprisingly, the prevalence of housing insecurity is much higher in the low income population. And the data suggests that such insecurity is especially a problem in urban areas.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (indicates highly variable rate with confidence interval half-width greater than 10%)
A similar question was asked regarding worries about having enough money to buy nutritious meals. While the percent of adults who always or usually have this concern is smaller than those worried about housing, there is nonetheless a large portion (21 percent) of the lowest income group who experience this food insecurity stress.
Food Security

Access to nutritionally adequate foods is fundamental to maintaining health. The data that follows are based on the USDA’s measure of food insecurity which reflects a lack of consistent access to enough food for an active, healthy life. The ZIP and census tract level estimates were created by the Feeding America network’s Map the Meal Gap project.

The ZIP code-level map below shows a wide range of food insecurity rates across the Finger Lakes region. The highest rates of insecurity (20 percent or higher) are found in the ZIPs in the cities of Rochester and Elmira. There are also some rural and suburban areas with high rates in the 15-19 percent range.

As the following charts show, there are clear patterns behind the food insecurity rates. Not surprisingly, there is a strong correlation with an area’s socioeconomic status. The food insecurity rate is 23 percent for ZIP codes in the lowest socioeconomic status segment. It is also noteworthy that even in highest socioeconomic ZIPs, food insecurity is estimated to be 7 percent.

Food insecurity rate by socioeconomic status in the Finger Lakes region

Overall, food insecurity rates are significantly higher in urban ZIP codes compared to suburban and rural areas. The second chart below shows that at any given level of socioeconomic status, urban ZIP codes have the highest rates of food insecurity. For example, SES 1 ZIP codes that are urban have overall food insecurity rate of 28 percent compared to 18 percent and 13 percent for the lowest SES suburban and rural areas. This data suggests that while socioeconomic status is a strong predictor of food insecurity, there are additional factors that hinder access to adequate nutritious food in the urban environment.

Census tract level estimates of food insecurity provide a more granular view within the City of Rochester. The map below shows that most areas of the city have rates above 10 percent, and there are some census tracts where more than 40 percent of the population is estimated to be food insecure.

The Focus Area* tracts generally have the highest rates of food insecurity. Within the Focus Area, 30 percent of the population is estimated to be food insecure. This compares to 19 percent for other parts of Rochester, and 9 percent for the suburbs in Monroe County.

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.

Food insecurity rate by location within Monroe County

Vehicle Access

Transportation is important not only for accessing healthcare, but also for employment, food and other basic necessities. People without a vehicle are dependent on others or public transportation, which can create a barrier to getting where they need to be when they need to be there.

The ZIP-level analysis below shows that households in low socioeconomic areas are much more likely to not have a vehicle. Nearly 29 percent of households in urban SES1 ZIP codes do not have a vehicle. While the prevalence of vehicle-less households is lower in suburban and rural areas, the impact for those households can be larger since distances between homes, services and employment are generally further.

Source: American Community Survey - 2016 5yr estimates: ZIP-level analysis by Common Ground Health
The map below shows the percentage of households without a vehicle in each ZIP code. The highest levels of vehicle-less households are in the urban areas of Rochester and Elmira. However, as the map indicates, there are also suburban and rural areas where 10 percent or more of the households don’t have a vehicle.

Source: American Community Survey; 2016 5yr estimates
Housing Quality

Housing quality can have an impact on health, and there are big disparities in the quality of housing across populations. The map below looks specifically at rental properties in the City of Rochester. The Health Home Index (HHI) was developed at the University of Rochester Medical Center as part of a broader effort to assess home environmental health hazards.* Using data from City of Rochester Certificate of Occupancy inspections, each rental property is scored based on identified health/safety violations. A higher number means more types of violations were found. A tract-level HHI score is calculated based on the average of property scores.

As the map shows, some areas have much higher incidence of health/safety violations.

The chart below highlights the correlation between housing quality and asthma ED visit rate. Each dot represents a census tract within Rochester. As the regression analysis trend shows, the tracts with higher (worse) Healthy Home Index scores also tend to have higher rates of ED visits due to asthma.

Source (Healthy Home Index): City of Rochester Certificate of Occupancy records
Source (ED visit rate): NYSDOH SPARCS
Analysis by Common Ground Health
Violence

Based on data from the Rochester Police Department, the map below shows large disparities in the prevalence of violent crime at a census tract level. The annual rate of violent crime in the Focus Area* tracts (923 per 100K population) is nearly triple the rate in the other parts of the city (325).

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Not surprisingly, the map below with rates of assault-driven ED visits looks very similar. The visit rate in the Focus Area* tracts (1,786 per 100K population) is 2.5 times the rate in the other tracts within Rochester (716).

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Beyond the place-based disparity seen above, there are also differences based on race/ethnicity and socioeconomic status. Regardless of location or SES, African-Americans have the highest rates ED visits caused by assault. While Latinos have very high rates in urban and SES 1 areas, their rate in other areas is much closer to the white rate.

The disparity in assault-driven ED visit rates has remained consistent over the past 10 years. While the data shows a decline in the rate for African-Americans and Latinos from 2013-2015, there was an uptick in 2016.
The Monroe County Youth Risk Behavior Survey provides additional perspective on the prevalence of violence and safety concerns among high school students.

Across Monroe County, over 30 percent of the African-American and 27 percent of the Latino respondents indicated that they had been in a physical fight in past year. These rates are significantly higher than the white rate (14 percent).

Students were also asked if they avoided school due to safety concerns. It is striking that 10 percent of Latinos and 8 percent of African-Americans said they did not go to school at least once in prior month because they felt unsafe.
Adverse Childhood Experiences (ACEs)

It is increasingly recognized that adverse childhood experiences (ACEs) can have a huge impact not only in the near-term, but also on longer-term development and well-being. The results from the 2017 Monroe County Youth Risk Behavior Survey, show there are significant differences in the prevalence of ACEs by race and ethnicity. It is striking that 40 percent of Latino students and nearly 30 percent of African-Americans report having three or more ACEs.

![Graph showing adverse childhood experiences (ACEs): three or more (Monroe County high school students 2017)]

Source: Monroe County Youth Risk Behavior Survey 2017. Analysis by Monroe County Department of Public Health shown with 95% confidence interval bars. Statistically significant differences (95% confidence): all comparisons
Education

The relationship between education and health is complex and bi-directional. On the one hand, current health issues can impact a student’s ability to learn. Additionally, educational achievement can be predictive of longer-term socioeconomic status and health outcomes. The data below from the New York State Education Department shows there are large disparities in educational outcomes related to race/ethnicity and economic status at both student family and district levels.

The chart on left side below shows four-year high school graduation rates across the Finger Lakes region segmented by student race/ethnicity. The graduation rate among non-Latino whites (88 percent) is much higher than the Latino and African-American rates (64 and 62 percent respectively.)

The right-hand chart segments students based on whether or not they are considered economically disadvantaged based on their family’s participation in economic assistance programs such as the free or reduced-price lunch programs, Social Security Insurance (SSI), Food Stamps, or Family Assistance: Temporary Assistance for Needy Families (TANF). Regardless of race/ethnicity or location, the economically disadvantaged students have a much lower graduation rate (69 percent) compared to the not economically disadvantaged students (92 percent).
There are also large disparities in graduation rates related to school district. The first chart below shows that regardless of race/ethnicity, the graduation rates in the suburbs of Monroe County are significantly higher than in the City of Rochester, and (to lesser extent) the other eight counties in the region. The subsequent chart highlights the disparity faced by both urban and rural high need districts compared to the non-high need districts. The high-need districts are identified by the state using a Need/Resource Capacity formula.

It is notable that regardless of the district location or need assessment, the white graduation rates are consistently higher than the African-American and Latino rates.
These patterns of academic achievement disparity are also evident at a much earlier age. The data below are based on third grade English Language Arts (ELA) and math assessments in districts across the Finger Lakes region. Proficiency rates are based on percentage of students who scored at levels 3 or 4.

The ELA (top charts) and math (bottom charts) have similar patterns which are consistent with, although more pronounced than, the high school graduation rate data. Proficiency rates are much higher for white students than African-Americans and Latinos, and for those students who are not economically disadvantaged (as identified by family participation in economic support programs).
Cross-segmenting the data by district location and race/ethnicity highlights a few patterns. All racial/ethnic populations have the lowest student proficiency rates in Rochester, and highest rates in the rest of Monroe County. Also, regardless of district location, the white proficiency rates are significantly higher than the African-American and Latino rates. While a significant racial-ethnic disparity is seen in the suburban districts, it is proportionally much smaller than in the other areas. It is striking that whites and Latinos have significantly higher proficiency rates in the other counties compared to Rochester, but African-Americans do not.
Protective Factors (Youth)

The Monroe County Youth Risk Behavior Survey asked high school students several questions about support available from family and the community.

In general, the non-Latino white students reported the highest level of support, although not all of the differences are statistically significant.

The largest disparity is seen when students were asked if they feel like they matter to people in their community. Only 46 percent of Latinos agreed or strongly agreed, which was significantly less than the white and African-American respondents (62 percent and 57 percent respectively).
Caregiving

The data below shows the percentage of adults who reported that during the past 30 days they had provided regular care or assistance to a friend or family member who has a health problem or disability. This caregiving information is important for a couple of reasons. First, support from family and friends can be a strong protective factor for people facing health challenges. Second, in playing a caregiver role, an individual is taking on a responsibility that can create both emotional and financial stress.

It is notable that roughly a quarter of each population is playing the caregiving role. The differences across segments in the charts below are not statistically significant.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Chapter 11: Health Behaviors

Smoking

Despite the continued overall decline in the prevalence of smoking, there are still some populations with high rates. In particular, adult smoking rates are highly correlated with income, and 35 percent of the under $20K segment indicates that they smoke every day or some days. It’s also striking to see that over 40 percent of the Medicaid population are smokers.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016;
Analysis by Common Ground Health (responder data weighted to estimate actual population composition)
shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
The map below shows estimated smoking rates by census tract for the City of Rochester. The rate within the Focus Area* tracts (28 percent) is much higher than the rest of the city (20 percent).

* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
Among adults, regular e-cigarette usage is less common than cigarette smoking, but it continues to grow in popularity, especially within younger populations. The charts below show the percentage of adults in 2016 who indicated they use e-cigarettes or other electronic “vaping” products every day or some days.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
E-cigarettes have become increasingly popular among youth, and high school students today are significantly more likely to try e-cigarettes or vaping than tobacco cigarettes. Across Monroe County, 36 percent of white students indicated they had tried e-cigarettes at least once, which is significantly higher than the rates among Latino and African-American students. The proportion of students who had tried tobacco cigarettes was lower for all three populations, with the highest rate among Latinos.

The second chart below shows the proportion of students that used e-cigarettes in prior 30 days. This data also shows a much higher likelihood among the white youth.
Suburban and higher SES areas with lower concentrations of tobacco retailers are the same areas that have lower rates of smoking. Lower socioeconomic, urban and rural areas, which have high rates of smoking, are the same areas that have higher concentrations of tobacco retailers.

This map shows the concentration of tobacco vendors by ZIP code in Monroe County.
Diet

Across the region, most residents self-report that they do not eat fruit daily. The rate is particularly low among the low income and Medicaid/uninsured populations.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Variation in rates of daily vegetable consumption are larger than the differences for fruit. Among the middle and high income segments, at least 70 percent of survey respondents indicated they eat vegetables or salad (excluding juices and potatoes) daily. Urban residents are also much less likely to eat daily vegetables compared to the suburban and rural populations.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
There are large disparities in the frequency of drinking soda (non-diet) and other sugar-sweetened drinks. African-Americans and Latinos are much more likely than whites to have at least one sugar drink each day. And the rates are higher for the low income, Medicaid and uninsured populations too.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Physical Activity

Suburban and higher income ($50K and above) populations are most likely to self-report leisure time physical activity in the prior 30 days. The rate for Latinos was significantly lower than the white rate, with African-Americans in between.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Within Monroe County, there is a significant racial/ethnic disparity in the proportion of high school students with low levels of physical activity. While only 12 percent of white students report that they did not engage in an hour of physical activity on any of the prior seven days, the proportion was much higher for African-American and Latino students (41 percent and 34 percent respectively).
Youth Sexual Activity

Results from the Monroe County Youth Risk Behavior survey show clear racial/ethnic differences in the proportion of sexually active male high school students. The proportion of white (not Latino) male students who have ever engaged in sexual intercourse was significantly lower than their African-American and Latino peers. And the difference is even larger when looking at the proportion who report having had four or more sexual partners.

There were not statistically significant differences by race/ethnicity among female students.
Chapter 12. Access to Care

Health Insurance

While survey data for the region suggests increased health insurance coverage rates for some populations from 2013/2014 to 2016, these changes are not statistically significant. The largest directional change is an increase from 82 percent to 90 percent coverage for the lowest income segment, which would be consistent with the Medicaid expansion provisions of the Affordable Care Act.

Interestingly, the largest measured decrease was for the $20-35K income population. While not statistically significant, this decline in the coverage rate is directionally consistent with the concern that many residents have incomes too high to benefit from the Medicaid expansion and marketplace subsidies, but also have trouble affording the increasingly expensive premiums for insurance.

Source: NYS DOH Behavioral Risk Factor Surveillance System (BRFSS) 2013/2014 and 2016; analysis of Finger Lakes nine county region by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals
These charts show health insurance coverage rates as captured by the 2016 Behavioral Risk Factor Surveillance Survey (BRFSS), so they reflect the impact of the Affordable Care Act. Levels of coverage are generally high, with a couple of notable disparities. The rural coverage rate (87 percent) is significantly lower than in the suburbs (94 percent), while the urban sample is too small to draw statistically significant conclusions. Across the income spectrum, the $20-35K population appears to have the lowest coverage rate. The under $20K population benefits most from the ACA’s Medicaid expansion, while those with higher incomes are less likely to qualify and are therefore more likely to have trouble affording coverage.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Cost as Barrier to Care

Even among those with health insurance, significant numbers of people do not receive medical care due to the cost. Not surprisingly, cost is more of an issue among lower income groups. Cost as a barrier is highest for the uninsured, but nonetheless is a challenge for many people with Medicaid or private insurance too.

![Cost as barrier to medical care by income](Image)

![Cost as barrier to medical care by race/ethnicity](Image)

![Cost as barrier to medical care by geography](Image)

![Cost as barrier to medical care by insurance](Image)

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Primary/Preventive Care

A vast majority of people indicate that they have someone that they think of as their personal doctor or health care provider. Aside from the highest income segment, there is no difference across the income spectrum. While the uninsured are much less likely to have a regular health care provider, there is no difference between those with private insurance or Medicaid. There are however apparent disparities when looking at the urban or minority populations. Latinos in particular are significantly less likely to report having a regular provider than whites.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Adult checkup rates are fairly consistent across income and geography. Survey respondents were asked how long it has been since they last visited a doctor for a routine checkup. Not surprisingly, the uninsured had a much lower rate than those with private or Medicaid coverage. Interestingly, the African-American population had a significantly higher rate than the white and Latino populations. It is important to recognize that checkups are only one indicator of primary care, and this data does not suggest there are not other disparities in access to preventive care.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
The survey data on checkup rates for high school students shows significant differences across racial/ethnic groups. While 90 percent of white students reported having a checkup or physical exam in the past year, only 71 percent of African-Americans and 83 percent of Latinos indicated they had.

Source: Monroe County Youth Risk Behavior Survey 2017. Analysis by Monroe County Department of Public Health shown with 95% confidence interval bars. Statistically significant differences (95% confidence) are comparisons.
Flu vaccination rates are fairly consistent across populations and generally below 50 percent. The largest gap is among the uninsured, of whom only 18 percent indicated they received a flu vaccine in the prior 12 months. The suburban rate appears higher than both rural and urban rates, although the suburban/urban difference is not statistically significant. The racial/ethnic differences are not statistically significant either.

Source: NYSDOH Behavioral Risk Factor Surveillance System (BRFSS) 2016; Analysis by Common Ground Health (responder data weighted to estimate actual population composition) shown with 95% confidence intervals (^indicates highly variable rate with confidence interval half-width greater than 10%)
Preventable Inpatient Visits (PQIs)

Preventable inpatient visits (PQIs) are an indication that patients are not getting the care needed to manage their health. Since 2000, the PQI rate for the region has decreased, although the improvement is not seen across all populations. The three charts below show that the PQI rate has not improved for the African-American, SES 1 or urban populations.
The charts below show that preventable inpatient visit (PQI) rates vary greatly by socioeconomic status. But there are additional disparities not explained by SES. The PQI rates for African-Americans are much higher than whites or Latinos at every SES level. Latino rates are significantly higher than whites in SES 1 and 2, but not at higher SES levels. The right-hand chart shows that while suburban and rural PQI rates are similar at each SES level, the urban rates are higher in lower socioeconomic levels, especially in SES 1.
The chart below compares the preventable inpatient (PQI) visit rates for the Focus Area* vs. other SES 1 ZIP codes in the region. While many outcomes and metrics are worse in the Focus Area than socioeconomic and racial/ethnic differences would predict, that is not the case with the PQI rate. The PQI rates for whites and African-Americans are essentially the same in the Focus Area vs. other SES 1 ZIP codes, and the rate is actually lower for Latinos.

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* The Focus Area is a large section of Rochester with particularly high concentrations of blacks, Latinos, and also poverty. For more details, see page 22.
The rate of preventable inpatient visits varies widely by ZIP code across the region. In six ZIP codes the PQI rate is more than double than region’s average. Three are in Rochester (14604, 14605 and 14611), and the others are in rural areas in Livingston, Steuben and Schuyler counties. The other areas with relatively high PQI rates tend to be the same ZIP codes that have lower socioeconomic status.

Preventable inpatient visit rate
By ZIP code

Inpatient visit rate (all POI)

- Up to 50% of region avg (up to 688)
- 51 - 100% of region avg (689 - 1,376)
- 101 - 125% of region avg (1,377 - 1,720)
- 126 - 200% of region avg (1,721 - 2,752)
- More than 200% of region avg (Over 2,752)

Source: NYSDOH SPARCS; rates per 100K population
Unnecessary and Preventable ED Visits

The NYU Algorithm provides a methodology to classify ED visits into several categories based on whether the underlying condition truly requires emergency care and, if so, whether the emergent condition was potentially preventable had timely and effective ambulatory care been received.

The trend charts below show that while the overall increase in the rate of unnecessary visits has been gradual and mild, there has been a more dramatic increase for African-American, Latino, and urban populations, particularly since 2012. The rates for rural, suburban and white populations have been fairly stable.

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**Unnecessary ED visit rate by race/ethnicity**

*Finger Lakes region*

- African-American
- Latino
- White (not Latino)
- Overall

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**Unnecessary ED visit rate by geography**

*Finger Lakes region*

- Urban
- Rural
- Suburban
- Overall

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Source: NYSDOH SPARCS; Age-Sex adjusted analysis by Common Ground Health

Note: Unnecessary ED visits determined based on NYU Algorithm and includes both non-emergent and emergent/primary care treatable conditions.
The same pattern is seen for preventable ED visits, which are those visits which potentially could have been avoided if the patient had received appropriate ambulatory care before the condition became emergent.

While the white rate has not changed significantly, the African-American and Latino rates have increased greatly in recent years. And similarly, the urban rate has grown quickly to more than double the rural and suburban rates which have been stable.
A deeper look shows some additional patterns for both unnecessary and preventable ED visit rates. Beyond the racial/ethnic and geographic disparities seen in prior charts, there is also a clear socioeconomic-related disparity. And while people in urban and low socioeconomic areas generally have higher rates, the rates are even higher for African-Americans and Latinos in those areas. It is interesting to see that while Latinos have much higher rates than whites in the low socioeconomic status areas, the difference is much smaller in SES 3-5. The African-American disparity remains large across the socioeconomic spectrum.
Health Professional Shortage Areas: Primary Care

The map below shows the areas that have been designated as Primary Care Health Professional Shortage Areas (HPSA) by the Health Resources and Services Administration. Much of the region is recognized as not having the number of primary care providers needed to meet the needs of the population. As of February 2018, a few areas have been proposed to lose their HPSA status.

Source: Health Resources & Services Administration; Updated as of 2/2/2018
ABOUT COMMON GROUND HEALTH

Founded in 1974, Common Ground Health is one of the nation’s oldest and most effective regional health planning organizations. Located in Rochester, N.Y., the nonprofit serves the nine-county Finger Lakes region. We bring together health care, education, business, government and other sectors to find common ground on health issues. Learn more about our community tables, our data resources and our work improving population health at www.CommonGroundHealth.org.

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