A person’s built environment, the community where they live and work, impacts their overall health and quality of life. Individuals living in poverty may have more adverse health outcomes than other individuals. Issues such as poor air quality, childhood lead exposure, a high concentration of tobacco and alcohol retail locations, high crime rates and limited access to healthy food disproportionately affect communities in poverty.

“Your longevity and health are more determined by your zip code than they are by your genetic code.”

- Tom Frieden, M.D., M.P.H., former Director of the CDC
PUBLIC HEALTH IMPORTANCE:

Crime victimization can result in death or serious injury. Victims who survive often report suffering from physical, mental, or emotional pain and distress. Over time, repeated exposure to crime can lead to poor health outcomes and an overall lower quality of life. Children who have had repeated exposure to traumatic events, even just by hearing about it, are more likely to experience anxiety, depression, and behavioral problems. As they reach adulthood, they are at higher risk of using illicit substances, having unsafe sex, experiencing intimate partner violence, or engaging in criminal activity.

**Key Findings**

- Violent crimes increased 15% between 2013 and 2016.
- Robbery is the only form of violent crime that did not increase between 2013 and 2016.

### Across the Nation

<table>
<thead>
<tr>
<th></th>
<th>Rate per 100,000</th>
<th>Montgomery</th>
<th>Ohio</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homicide Death Rate*</td>
<td>11.3*</td>
<td>7.1*</td>
<td>6.0*</td>
<td></td>
</tr>
<tr>
<td>Violent Crime</td>
<td>418.4</td>
<td>300.3</td>
<td>397.1</td>
<td></td>
</tr>
<tr>
<td>Property Crime</td>
<td>3,289.4</td>
<td>2,577.5</td>
<td>2,450.7</td>
<td></td>
</tr>
</tbody>
</table>

*Age-adjusted

1Ohio Death Certificates, Ohio Department of Health, 2017

2Mortality public-use data on CDC WONDER online database, 2017

3Ohio Incident-Based Reporting System (OIBRS), 2016

### Assault-related Hospital Visits (per 1,000) by Demographic Characteristics, Montgomery County, 2017

<table>
<thead>
<tr>
<th>Race</th>
<th>Montgomery</th>
<th>White</th>
<th>Black</th>
<th>Male</th>
<th>Female</th>
<th>&lt;18</th>
<th>18 to 64</th>
<th>&gt;64</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>6.8</td>
<td>4.2</td>
<td>16.2</td>
<td>1.6</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Greater Dayton Area Hospital Association Healthcare Database

### Assault-related Hospital Visits by Insurance Type, Montgomery County, 2017

<table>
<thead>
<tr>
<th>Insurance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>60%</td>
</tr>
<tr>
<td>Self-Pay</td>
<td>16%</td>
</tr>
<tr>
<td>Commercial Insurance</td>
<td>10%</td>
</tr>
<tr>
<td>Medicare</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Greater Dayton Area Hospital Association Healthcare Database

### Key Findings

- Blacks and men are most likely to visit the hospital for assaults.
- 60% of hospital visits for assaults are paid for by Medicaid.

### Homicide Death Rate* by Race and Sex, Montgomery County, 2016-2017

- Black men are nearly 20 times more likely to die by homicide than White men.
- The homicide death rate among men is 5 times higher than for women.
- Gun violence accounts for 83% of homicides between 2015 and 2017 (data not shown).
Overall Crime Rate, Montgomery County, 2016

Jackson Township Police Department covers Farmersville
The Montgomery County Sheriff’s Office covers Harrison, Jefferson, and Washington Townships

SDOH SOCIAL DETERMINANTS OF HEALTH:
Crime rates vary by neighborhood, with low income neighborhoods more likely to be impacted by crime than higher income neighborhoods. Higher crime rates in these areas can be associated with increased stress and anxiety among residents. Additionally, poor physical health is associated with a resident’s real and perceived safety from crime. These neighborhoods are also vulnerable to high rates of obesity and chronic disease due in part to physical inactivity. Fear prevents participation in any form of outdoor physical activity; walking for leisure or transportation is avoided and parks are under-utilized.
The percent of days with a "Good" AQI level increased between 2010 and 2017.

In the last 10 years, the AQI for Montgomery County reached the "Unhealthy" level on only three days in 2011 and 2012 (data not shown).

**Key Findings**

**Air Quality Index (AQI) Guide**

<table>
<thead>
<tr>
<th>Air Quality Index Levels</th>
<th>Numerical Value</th>
<th>Health Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>0 to 50</td>
<td>Air quality is considered satisfactory, and air pollution poses little or no risk.</td>
</tr>
<tr>
<td>Moderate</td>
<td>51 to 100</td>
<td>Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.</td>
</tr>
<tr>
<td>Unhealthy for Sensitive Groups</td>
<td>101 to 150</td>
<td>Members of sensitive groups may experience health effects. The general public is not likely to be affected.</td>
</tr>
<tr>
<td>Unhealthy for Sensitive Groups</td>
<td>151 to 200</td>
<td>Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.</td>
</tr>
<tr>
<td>Very Unhealthy</td>
<td>201 to 300</td>
<td>Health warnings of emergency conditions. The entire population is more likely affected.</td>
</tr>
<tr>
<td>Hazardous</td>
<td>301 to 500</td>
<td>Health alert: everyone may experience some effects.</td>
</tr>
</tbody>
</table>

**Percent of Days per Year with AQI Level of “Good” Montgomery County, 2010-2017**

- The percent of days with a "Good" AQI level increased between 2010 and 2017.
- In the last 10 years, the AQI for Montgomery County reached the "Unhealthy" level on only three days in 2011 and 2012 (data not shown).

**Average Pollen and Mold Count by Month, Montgomery County, 2017**

- The pollen counts are highest for trees in April, for grasses in May, and for weeds in August.
- The mold counts begin increasing in April, peak in September, and begin to decline in October.

**SDOH: Social Determinants of Health:**

A child’s home environment serves as a significant source of lead exposure. Lead can be found in certain toys, lead pipes, soil, and within the paint used on homes built before 1978. Lead paint can break down, peel, and flake spreading lead dust throughout the home. Young children are at high risk of poisoning when they put objects or their hands in their mouths that have been exposed to lead. Lead is harmful to the developing brain and nervous system as it can cause irreversible effects in young children. Some of these health effects include aggressive behavior, hyperactivity, impaired growth, hearing loss, learning disabilities, mental retardation, coma, and, in extreme cases, death. Children that are at a higher risk for lead exposure are poor, members of racial or ethnic minority groups, recent immigrants, or live in older, poorly maintained rental property (CDC, 2015).
 Communities with higher poverty rates and larger minority populations (i.e., Black and Hispanic populations) have a higher concentration of alcohol retail stores and tobacco vendors. These neighborhoods are subjected to the negative social consequences associated with these stores such as physical violence, noise, property damage, and disorderly conduct. Strong social cohesion and community involvement are needed in these neighborhoods to work collectively to address zoning laws that permit a high density of alcohol and tobacco vendors (CDC, 2017).

**SDOH SOCIAL DETERMINANTS OF HEALTH:**

Density of Alcohol Retail Carry-Out Locations
Montgomery County, 2019

Density of Tobacco Vendors
Montgomery County, 2018
Food Deserts and Available Food Options, Montgomery County, 2018

Food deserts are low income census tracts where a significant number of residents are more than 1 mile in urban areas or 10 miles in rural areas from the nearest supermarket.

Food Location Types

- **Grocery**: Small neighborhood retail shop that primarily sells food
- **Local Market**: Small neighborhood market that offers food options
- **Supercenter**: Combined supermarket and department store (i.e., Walmart)
- **Supermarket**: Large grocery store that also sells non-grocery items (i.e., Kroger)

**SDOH SOCIAL DETERMINANTS OF HEALTH:**

Neighborhood conditions can impact the availability of healthy, fairly-priced, quality food. Residents of lower income and rural neighborhoods are more likely to have poor access to supermarkets that offer fruits, vegetables, and whole food options due to distance and transportation. Additionally, low income neighborhoods are less likely to have supermarkets or chain grocery stores nearby and tend to have a higher number of convenience stores and small food markets that carry foods of lower nutritional quality. If healthier food options are available in the smaller neighborhood stores, they are often more expensive than in a chain supermarket.

The park and trail systems within Montgomery County are extensive. Dayton’s Five Rivers MetroParks maintains 18 parks and six regional recreation trails within nearly 16,000 acres of green space. Each city and township also has a system of parks and trails.

**SDOH SOCIAL DETERMINANTS OF HEALTH:**

When neighborhoods have nearby parks and bike trails, they may often go unused. In communities where sidewalks are absent or poorly maintained, streets are poorly lit, crosswalks are nonexistent, or cars travel at a high rate of speed, residents do not feel safe walking to parks. A fear of violence, whether real or perceived, may also discourage the use of neighborhood parks.