Background & Methodology:
As part of the Patient Protection and Affordable Care Act, all non-profit hospitals are required to conduct a Community Health Needs Assessment (CHNA) every three years in order to remain a tax-exempt organization under section 501(c)(3) of the Internal Revenue Code. The goal of the assessment is to identify critical health disparities faced among residents within the community. The needs assessment states health priorities addressed by community stakeholders, hospital professionals, or public health experts. Additionally, campus specific implementation plans have been crafted for each of the St. Luke’s University Health Network (SLUHN) campuses in order to determine how resources will be allocated to address the specified health needs. Our CHNA is comprised of both primary and secondary data. The primary data was collected through our community health surveys, where approximately 10,000 surveys were conducted in our eleven campus geographic region. Primary data was also collected through 11 campus specific key stakeholder focus groups. Secondary data included hospital network, county, state, and national level data.

Description of Service Area:

<table>
<thead>
<tr>
<th>Income</th>
<th>&lt; $15,000</th>
<th>$15,000-$24,999</th>
<th>$25,000-$49,999</th>
<th>$50,000-$74,999</th>
<th>$75,000-$99,999</th>
<th>$100,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>High School/GED or Less</td>
<td>Some or Completed College</td>
<td>Graduate Degree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 18</td>
<td>18-24</td>
<td>25-44</td>
<td>45-64</td>
<td>65+</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Non-Hispanic</td>
<td>Hispanic/Latino</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>White</td>
<td>Black</td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Income and Education reflect Northampton County population

**Social Determinants of Health:**

**Income**
- 30% of St. Luke’s Bethlehem service area residents live at or below 200% of the Federal Poverty Level ($24,600 for a family of four in 2017).
- 43% of children in the Bethlehem service area are eligible for free or reduced-price lunch programs.

**Education**
- The graduation rate in Northampton County’s public high schools was 88%.
- Bethlehem Area School District’s two public high schools Freedom and Liberty had 2018 graduation rates of 87% and 82%, respectively.

**Health Insurance**
- 8.92% of the Bethlehem service area’s population is without health insurance.
- Roughly 4.1% of service area residents without medical insurance is under the age of 19.
- According to the 2019 community survey, the top reason that Bethlehem respondents cited for postponing medical care was that their share of the cost was too high (12%).

**Implementation Strategy:**

**Key Findings:**
The three main priorities identified include: improving access to care; preventing chronic disease; and improving mental and behavioral health. The upstream factors related to the social determinants of health and individual lifestyle behaviors contribute to the poor health status of our communities. These three health priorities will be addressed using the social determinants of health framework in conjunction with using the Lifestyle Medicine interventions in order to influence the overall health of our communities. The following data is reflective of the St. Luke’s Bethlehem Campus.
To explore some of the most vulnerable neighborhoods we serve, we examined resources in the ten lowest income census-tracts that send patients to our Bethlehem campus.

**Access to Food**
- 47% of families use SNAP (Supplemental Nutrition Assistance Program).
- The average rate of residents living more than half a mile from a supermarket and without a vehicle is 13%, with some neighborhoods up to 47%, such as Lehigh County Tract 97 located in Center City Allentown.

**Housing**
- 57% of these low-income tract households are cost-burdened, and 16% of all households in Northampton County have at least one severe housing problem.
- In 2018, there were 302 homeless individuals in Northampton County.

**Lifestyle Behaviors:**

**Diet**
- According to 2019 community survey data, only 10% of Bethlehem service area respondents consumed the recommended amount of 5 or more servings of fruits and vegetables per day.
- A healthy diet is linked to income; 12% of respondents with over $60,000 income consumed 5 or more servings of fruits and vegetables per day compared to only 6% of those with less than $15,000 income.

**Exercise**
- Only 15% of Bethlehem service area respondents reported regularly exercising 5 or more days per week.
- 27% of Bethlehem respondents reported no days of exercise per week.

**Obesity**
- 73% of Bethlehem survey respondents were overweight or obese according to BMI calculations (33% overweight and 40% obese).
- The highest rate of obesity (48%) was found for lower-income people earning less than $25,000 while the lowest rate of obesity (38%) was found for those earning more than $60,000 annually.

**Diabetes**
- Respondents with less than $25,000 income had significantly higher reported diabetes diagnosis rates (40%) than those with more than $60,000 income (12%).

**Mental Health**
- 37% of survey respondents reported having missed one or more days of normal activity due to poor mental health within the past month.
- According to the 2017 PA Youth Survey data, over 40.5% of all students in Northampton County felt depressed or sad most days in the past 12 months.

**Smoking**
- For 2018, Robert Wood Johnson Foundation reported that 15% of adults in Northampton County were smokers.
- According to survey data, smoking is linked to income; 27% of respondents with less than $15,000 income reported smoking, compared to 7% of respondents with incomes of $60,000 or more.

**Adolescent Electronic Vapor Product Use**
- There has been a 900% increase in e-cigarette use among high school students nationally from 2011 to 2015.
- Survey responses showed that the highest rate of electronic vapor product use (8%) was in the 18-24 age group.
- In Northampton County, 10% of 12th graders reported using a vapor product at least once a week in the past month.
- In 2016, the Surgeon General declared youth usage of vapor products to be a significant public health concern.

**Substance Abuse**
- There has been a 600% increase in synthetic opioid (fentanyl) deaths in the U.S. since 2013.
- There has been an increase in Northampton County opioid overdose death rates from 4.7 (2007-11) to 17.7 (2012-16) per 100,000 residents.
- 19% of Bethlehem service area respondents reported at least one episode of binge drinking behavior and 6% reported at least 3 episodes of binge drinking behavior in the past month.
- Survey data indicated that the highest rate of binge drinking (18%) occurs in the 18-24 age group.