



## 2017 Community Health Needs Assessment Report

 **Aurora Sheboygan Memorial  
Medical Center\***

**Aurora Sheboygan  
Memorial Medical Center**  
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### Introduction | Aurora Health Care

Aurora Health Care, a not-for-profit, integrated health system, is Wisconsin's most comprehensive health care provider and the state's largest private employer. As caregivers, we serve more than 1.2 million patients every year. Our patients enjoy care that is coordinated across an integrated network of facilities, services and providers. Aurora's 15 hospitals are bringing the latest technologies to communities across eastern Wisconsin and northern Illinois. Primary care clinics offer a wide array of primary care and specialty physicians, diagnostic services and wellness programs. Home care, which includes nursing, durable medical equipment, hospice and therapy services, is coordinated through the Aurora at Home, a comprehensive home care service. Our pharmacies, behavioral health services and labs all work together to provide a vital link in the continuum of care.

### Part I | Aurora Sheboygan Memorial Medical Center (ASMMC)

#### Who we are. What we do

At Aurora Sheboygan Memorial Medical Center (ASMMC), we are dedicated to improving the health and well-being of those who live in our community. Our commitment to medical excellence, innovation and safety has helped us to be named one of America's Top 100 Hospitals by Truven Health Analytics, the nation's leading source of independent and objective hospital performance benchmark data, five of the last seven years. You can expect not only state-of-the-art treatment at ASMMC, but also the highest level of patient centered care. We are proud to note that we perform in the upper quartile of all hospitals, according to data maintained in the Press Ganey database, for patient satisfaction.

#### Who we serve

ASMMC has been serving community members in Sheboygan County, Wisconsin since 1917 and is dedicated to their well-being. Sheboygan County is one of the oldest counties in the state with over 115,000 people living in this community, located midway between the Milwaukee and Green Bay metropolitan areas.

#### ASMMC by the Numbers (2016)

- 135 hospital beds
- 87,679 outpatients registrations
- 6,323 inpatient admissions
- 20,202 emergency department visits
- 955 newborn deliveries
- 6,423 surgical cases (inpatient and outpatient)

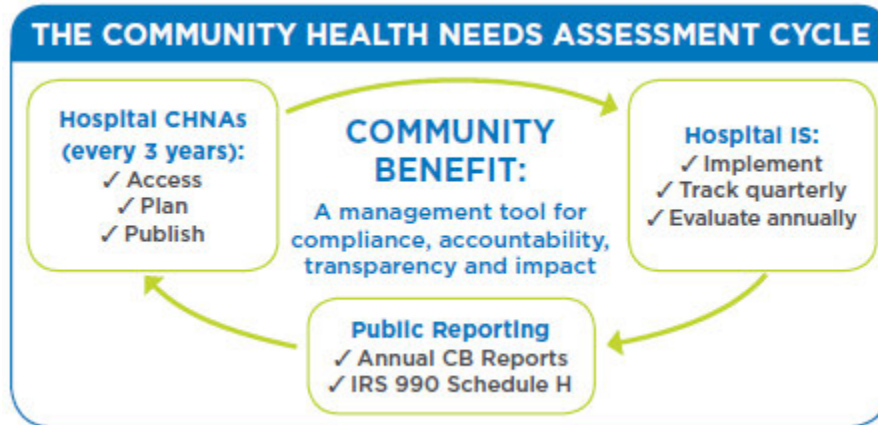
#### Our distinctions include

- Named one of America's Top 100 Hospitals by Truven Health Analytics
- Designation as a Center of Excellence by the Joint Commission for:
  - Stroke
  - Hip Replacement
  - Knee Replacement
  - Spine surgery
- Certified by the Joint Commission as a Primary Stroke Center
- Certified by the College of Surgeon's Commission on Cancer and Breast Cancer (NBPC)
- Accredited by the American College of Surgeon's Commission on Cancer
- Accredited by the National Accreditation Program for Breast Centers (NAPBC)

To learn more about our hospital, please see <https://ahc.aurorahealthcare.org/aboutus/community-benefits/hospitals/lakeland.asp>.

### Assessing community health status – an ongoing commitment

Since 2003, Aurora Health Care has underwritten a community health survey of Sheboygan County approximately every three years, conducted in partnership with the Sheboygan County Division of Public Health. This helps the health department focus its resources on community health issues and enables us to align our charitable resources and expertise to respond to identified community health priorities. To view the community health surveys dating back to 2003, visit <http://www.aurora.org/commresearch>.



### Part II | Aurora Sheboygan Memorial Medical Center (ASMMC) 2017 Community Health Needs Assessment (CHNA) Report

#### Section 1 | Community served: Sheboygan County



Although Aurora Sheboygan Memorial Medical Center serves patients from Sheboygan County and beyond, for the purpose of the community health needs assessment the community served is defined as Sheboygan County.



Settled in 1635 by Jean Nicolet, Sheboygan County was organized as a county in 1838.<sup>1</sup> It is located between Milwaukee and Green Bay along Lake Michigan. Sheboygan is the largest city in the county, while the second largest city, Plymouth, is centrally located within the county. Sheboygan County is home to a wide variety of global brands, from companies such as Johnsonville Sausage and Bemis Mtg to Kohler Co. and Sargento Foods.<sup>2</sup> The County has several academic centers including Lakeshore Technical College, Lakeland College, University of Wisconsin-Sheboygan and the Marquette-Kohler MBA Program.

Sheboygan County is made up of suburban, rural and lakefront communities. Sheboygan is the largest city in the county.<sup>3</sup> Plymouth, the second largest community, is centrally located within the county.<sup>4</sup>

- Cities of Plymouth, Sheboygan, Sheboygan Falls
- Villages of Adell, Cascade, Cedar Grove, Elkhart Lake, Glenbeulah, Howards Grove, Kohler, Oostburg, Random Lake, Waldo
- Towns of Greenbush, Herman, Holland, Lima, Lyndon, Mitchell, Mosel, Plymouth, Rhine, Russell, Scott, Sheboygan, Sheboygan Falls, Sherman, Wilson

<sup>1</sup> Sheboygan County Wisconsin. Available at <http://www.sheboygancounty.com/about-the-county/history>. Accessed July 7, 2017.

<sup>2</sup> Sheboygan County Economic Development Corporation. Available at <http://www.sheboygancountyedc.com/market-info/top-employers/>. Accessed July 7, 2017.

<sup>3</sup> Sheboygan County Chamber. Available at [http://www.sheboygan.org/welcome\\_to\\_sheboygan\\_county](http://www.sheboygan.org/welcome_to_sheboygan_county). Accessed July 7, 2017.

<sup>4</sup> City of Plymouth. Available at <http://www.ciplywi.com/>. Accessed August 25, 2017.

## Demographic Characteristics of Sheboygan County and Wisconsin, 2015

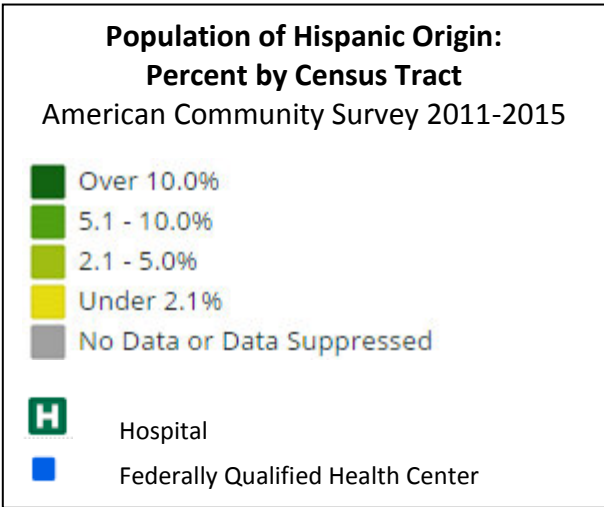
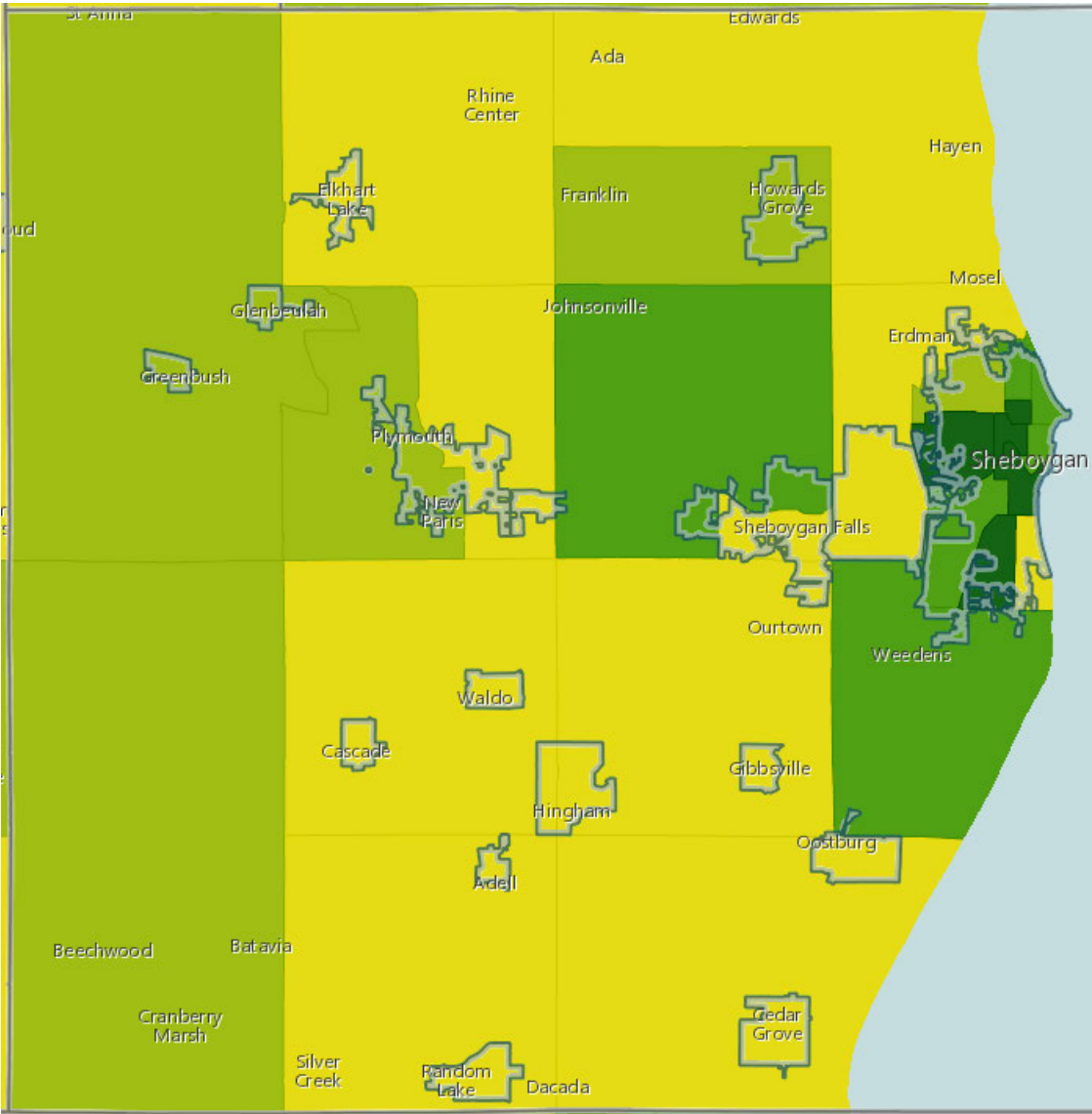
Characteristics	Sheboygan County	Wisconsin
Total Population*	115,507	5,742,117
Median Age (years)*	41.3	39.0
<b>Race*</b>		
White	90.2%	86.5%
Black or African American	1.4%	6.3%
Asian	5.1%	2.5%
American Indian and Alaska Native	0.3%	0.9%
Native Hawaiian or Other Pacific Islander	0.0%	0.0%
Some other race	1.1%	1.7%
Two or more races	1.9%	2.1%
Hispanic or Latino (of any race)	5.9%	6.3%
<b>Age*</b>		
0-14 years	18.8%	18.9%
15-44 years	36.2%	38.5%
45-64 years	29.2%	27.8%
65 years and older	15.8%	14.8%
<b>Education level of adults 25 years and older**</b>		
Less than high school degree	9.1%	8.9%
High school degree	36.7%	32.0%
Some college/associates	30.9%	31.2%
Bachelor degree or higher	23.4%	27.8%
<b>Unemployment Rate (estimate)**</b>		
Percent of those ages 16 or older who are unemployed (estimate)	5.8%	7.2%
<b>Median household income (estimate) (2015 inflation-adjusted dollars)</b>		
	\$53,713	\$53,357
<b>Percent below poverty in the last 12 months (estimate)</b>		
	9.2%	13.0%

Note: Some totals may be more or less than 100% due to rounding or response category distribution

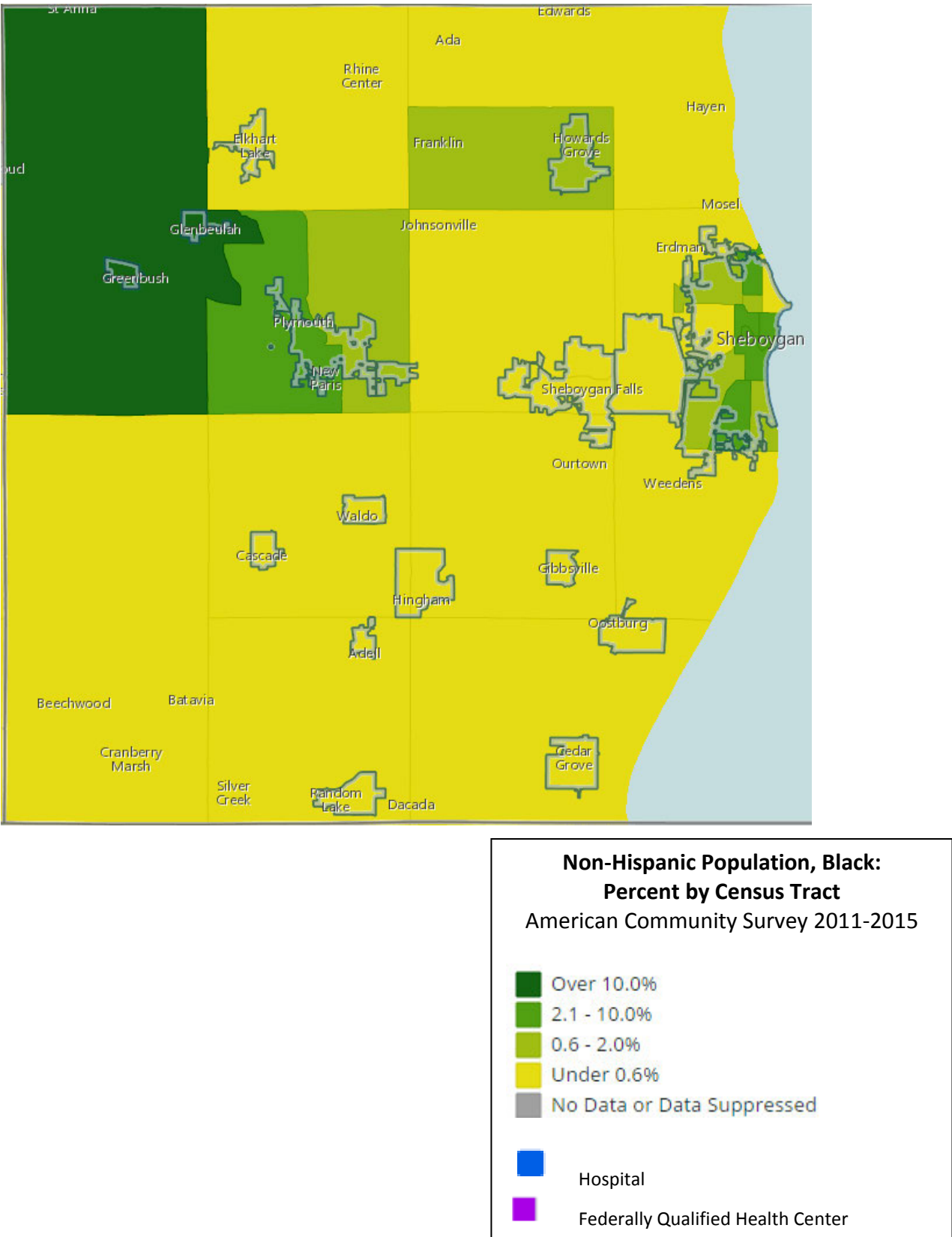
\* American Community Survey. 2011-2015 5-year Estimates, accessed June 30, 2017.



Sheboygan County

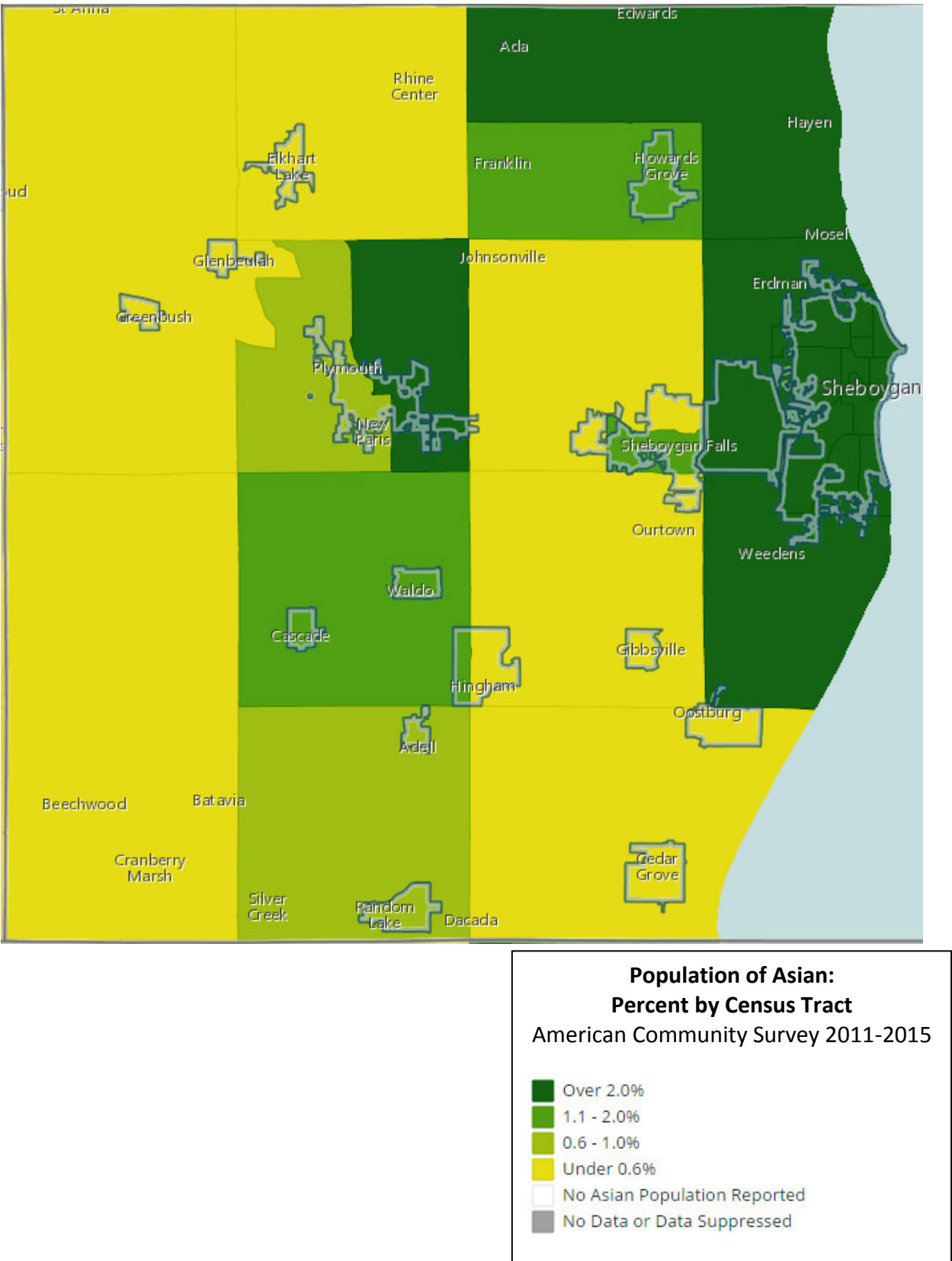


Sheboygan County





Sheboygan County



### Section 2 | How the Community Health Needs Assessment (CHNA) was conducted

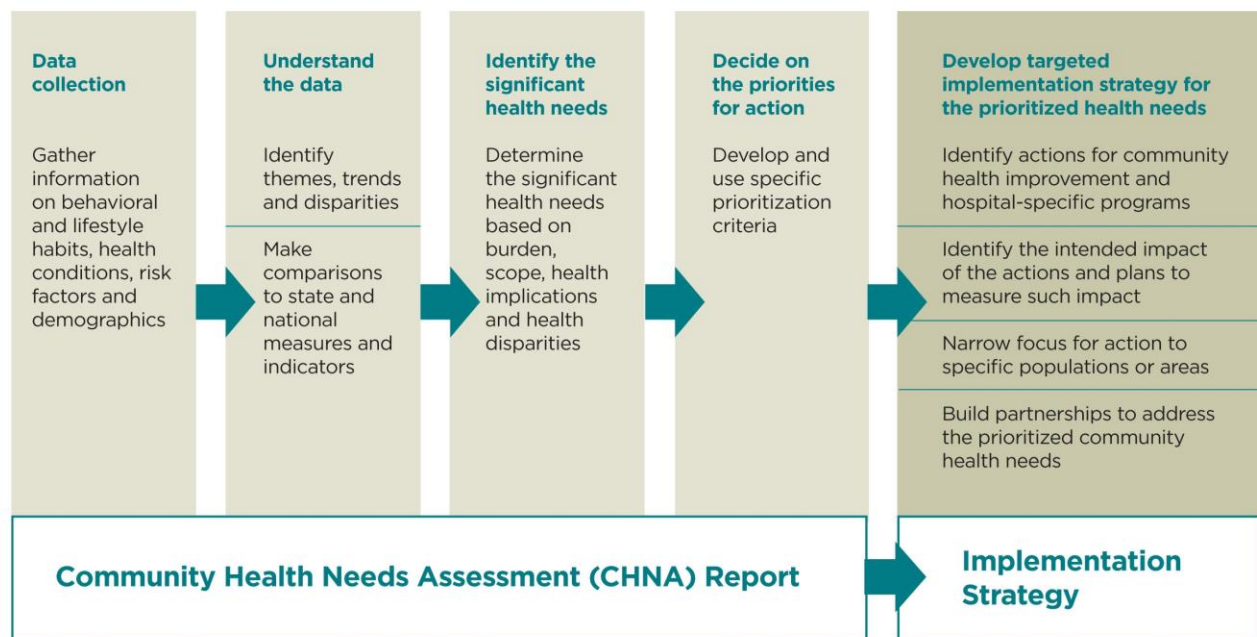
#### Purpose and process of the shared Community Health Needs Assessment

The inaugural community health needs assessment (CHNA) was conducted in 2013 and adopted by the Social Responsibility Committee of the Aurora Health Care (AHC) Board of Directors on November 22, 2013. In 2017, a CHNA was conducted to 1) determine current community health needs in Sheboygan County, 2) gather input from persons who represent the broad interests of the community and to identify community assets, 3) identify and prioritize significant health needs, and 4) develop implementation strategies to address the prioritized health needs within the context of the hospital's existing programs, resources, strategic goals and partnerships. The process of conducting the CHNA is illustrated below and is described in this report.

#### Partnership

The community health survey was sponsored by Aurora Health Care, HSHS St. Nicholas Hospital, Lakeshore Community Health Center, United Way of Sheboygan County and the University of Wisconsin Extension-Sheboygan County in partnership with Sheboygan County Division of Public Health. The data collection process is aligned to coordinate with varied fiscal year cycles among the partners. The community health survey is supplemented by additional data collection and analysis from the Center for Urban Population Health, [www.cuph.org](http://www.cuph.org).

The 2017 community health needs assessment is based on prior efforts undertaken by Aurora Health Care to assess community health needs. Since 2003, Aurora Health Care has underwritten a community health survey of Sheboygan County approximately every three years, conducted in partnership with the Sheboygan County Division of Public Health.



### Data collection and analysis

Quantitative data was collected through primary and secondary sources and was supplemented with qualitative data gathered through key informant interviews. Different data sources were collected, analyzed and published at different intervals, and therefore the data years (e.g., 2011, 2014, 2017) will vary in this report. The most current data available was used for the CHNA.

**The core data sources for the CHNA include:**

### Quantitative data sources

#### Source #1 | Sheboygan County Community Health Survey Report

The community health survey is a source of primary community health data. The latest telephone survey was completed between January 11 and February 1, 2017, and analyzed and posted in 2017. This comprehensive phone-based survey gathers specific data on behavioral and lifestyle habits of the adult population and select information about child health. In addition, this report collects data on the prevalence of risk factors and disease conditions existing within the adult population and compares, where appropriate and available, health data of residents to state and national measures. Conducted approximately every three years, the survey can be used to identify community trends and changes over time. New questions have been added at different points in time. JKV Research, LLC analyzed the data and prepared the final report. For further description see Appendix A and for the data summary Appendix D.

#### Source #2 | Secondary Data Report

This report summarizes the demographic and health-related information for Sheboygan County (Appendix B). Data used in the report came from publicly available data sources. Data for each indicator is presented by race, ethnicity and gender when the data is available. When applicable, *Healthy People 2020* objectives are presented for each indicator. The report was prepared in 2017 by the Center for Urban Population Health (CUPH). For further description see Appendix B.

### Qualitative data source

#### Source #3 | Key Informant Interview Report

Thirty-two individual key informant interviews were conducted between January and April 2017, taking into account input from persons who represent the broad interests of the community served. Each key informant was asked to rank order the top 3 to 5 major health-related issues for Sheboygan County, based on the focus areas presented in Wisconsin's State Health Plan, *Healthiest Wisconsin 2020*. For each top-ranked health topic the informant was asked to specify existing strategies to address the issue, barriers or challenges to addressing the issue, additional strategies needed, key partners in the community that hospitals should collaborate with to improve community health and targeted groups to address health disparities. Among the key informants were leaders from public health, education and community organizations. These key informants represent the broad interest of the community served, including medically underserved, low income and minority populations.

The *Key Informant Interview Report* presents the results, including cross-cutting themes and summaries of the top five health issues and additional health issues. Moreover, the Key Informant Interview Report compiles a listing of potential resources and partnerships identified to address community health issues (Appendix C). The report was prepared by CUPH.

**Source #4 | Written Comments on the Current CHNA Report and Implementation Strategy**

Aurora Health Care invites the community to provide written comments on its current CHNA Reports and Implementation Strategies via a one-click portal on its website at <http://www.aurora.org/commbenefits>. *Through August 2017, ASMMC did not receive any comments on the current CHNA Report or Implementation Strategy.*

**Additional sources of data and information used to prepare the ASMMC CHNA Report were considered when identifying significant community health needs and are cited within the report.**

### Section 3 | Significant health needs identified through the Community Health Needs Assessment (CHNA) for Sheboygan County

The significant health needs identified through the CHNA are also identified as key health issues for the state as outlined in the state health plan, *Healthiest Wisconsin 2020*, as well as the nation as outlined in the *Healthy People 2020*, and are among major focus areas of the Centers for Disease Control and Prevention (CDC). From a local perspective, the significant health needs identified through the CHNA have an impact on community health, both for the community at-large and in particular specific areas within the community (such as neighborhoods or populations experiencing health disparities).

To determine the significant health needs identified through the CHNA, the following criteria was considered:

- Burden of the health issue on individuals, families, hospitals and/or health care systems (e.g., illness, complications, cost, death);
- Scope of the health issue within the community and the health implications;
- Health disparities linked with the health issue; and/or
- Health priorities identified in the municipal health department Community Health Improvement Plan (CHIP)

The *Healthy People 2020* definition of a health disparity:

If a health outcome is seen in greater or lesser extent between populations, there is disparity. Race or ethnicity, sex, sexual identity, age, disability, socioeconomic status and geographic location all contribute to an individual's ability to achieve good health.

#### Summary of municipal health department community health improvement plan (CHIP), *Healthiest Wisconsin 2020* and *Healthy People 2020*

<b>Municipal Health Department Community Health Improvement Plan (CHIP)</b>	<p>"Since 1993, Wisconsin State Statutes have required communities throughout Wisconsin to develop and implement local health plans to address health conditions impacting their residents." This process has been referred to as the Community Health Improvement Plan (CHIP).</p> <p><a href="http://www.dhs.wisconsin.gov/chip/">http://www.dhs.wisconsin.gov/chip/</a></p>
<b>Healthy Wisconsin</b>	<p>"<i>Healthiest Wisconsin 2020 (HW2020)</i> identifies priority objectives for improving health and quality of life in Wisconsin. These priorities were chosen based on which accomplishments would offer the greatest improvements in lifelong health, and to eliminate health disparities and achieve more equal access to conditions in which people can be healthy. Priorities were influenced by more than 1,500 planning participants statewide, and shaped by knowledgeable teams based on trends affecting health and information about effective policies and practices in each focus area." The 23 focus area profiles of <i>HW2020</i> can be grouped into three categories: crosscutting, health, and infrastructure. <a href="http://www.dhs.wisconsin.gov/hw2020/pdf/exesummary.pdf">http://www.dhs.wisconsin.gov/hw2020/pdf/exesummary.pdf</a> . Updated in 2017, <i>HW2020</i> was rebranded to <i>Healthy Wisconsin</i> to prioritize and narrow the focus areas to alcohol, nutrition &amp; physical activity, opioids, suicide and tobacco along with addressing ACEs or adverse childhood experiences. <a href="https://healthy.wisconsin.gov/">https://healthy.wisconsin.gov/</a></p>
<b>Healthy People 2020</b>	<p>"<i>Healthy People</i> provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, <i>Healthy People</i> has established benchmarks and monitored progress over time in order to:</p> <ul style="list-style-type: none"> <li>• Encourage collaborations across communities and sectors</li> <li>• Empower individuals toward making informed health decisions</li> <li>• Measure the impact of prevention activities"</li> </ul> <p><a href="http://www.healthypeople.gov/2020/about/default.aspx">http://www.healthypeople.gov/2020/about/default.aspx</a></p>

### Summary of the significant health needs identified through the CHNA for Sheboygan County

This report focuses on the following data collection years: 2005, 2008, 2011, 2014 and 2017. The Community Health Survey (Source #1), the secondary data (Source #2) and the key informant interview reports (Source #3) provide an overview of the community health issues in Sheboygan County. When available and applicable, *Healthy People 2020* objectives are listed for the health topics.

#### Access

**Unmet medical care** | In 2017, 16% of the respondents delayed or did not seek medical care due to costs in the past 12 months; those who were female were more likely to report this. The percentage of adults who receive primary health services through a medical home have decreased significantly from 84% in 2005 to 58% in 2017. In addition, the number of individuals with an unmet medical need remained relatively the same at 12%. Of the households with a child, 7% reported that a child did not receive the needed medical care in the past 12 months. In addition, 91% of the children have a medical home with a personal health care clinician who knows the child well, falling short the *Healthy People 2020* target of 94.3% (Source #1). Residents and key informants identified access to health care as a top five community health issue (Sources #1 and #3).

- The *Healthy People 2020* targets are to reduce the proportion of persons who are without health care coverage to 0% and who are unable to obtain or delay in receiving necessary medical care to 4.2%.

**Why is this significant?** Unmet medical care can lead to further health complications and increase future costs. Access to medical care can detect and treat disease at an earlier stage, improve overall health, prevent disease and disability, and reduce preventable deaths.<sup>5</sup>

**Dental services and unmet dental care** | In 2017, 17% percent of respondents reported that they did not get the dental care they needed sometime in the last 12 months, an increase from 7% in 2008. In addition, 8% of the households reported that their child did not receive the needed dental care in the past 12 months (Source #1).

- The *Healthy People 2020* target is to reduce the proportion of persons who are unable to obtain or who encounter substantial delay in receiving necessary dental care to 5.0%.

**Why is this significant?** Unmet dental care can increase the likelihood for oral disease, ranging from cavities to oral cancer, which can lead to pain and disability. Access to oral health services can prevent cavities, gum disease and tooth loss, improve the detection of oral cancers and reduce dental care costs.<sup>6</sup>

**Unmet prescription medications** | In 2017, 9% of respondents reported that someone in their household had not taken their prescribed medication in the past 12 months due to prescription costs, statistically similar to 2008.

- The *Healthy People 2020* target is to reduce the proportion of persons who are unable to obtain or who encounter substantial delay in receiving necessary prescription medication to 2.8%.

**Why is this significant?** Lack of access to prescribed medication can decrease medication adherence and reduce self-management of chronic diseases and other health issues.<sup>7</sup>

<sup>5</sup> Healthy People 2020 – Access to Health Services. U.S. Department of Health and Human Service. Available at <http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services> Accessed April 21, 2017.

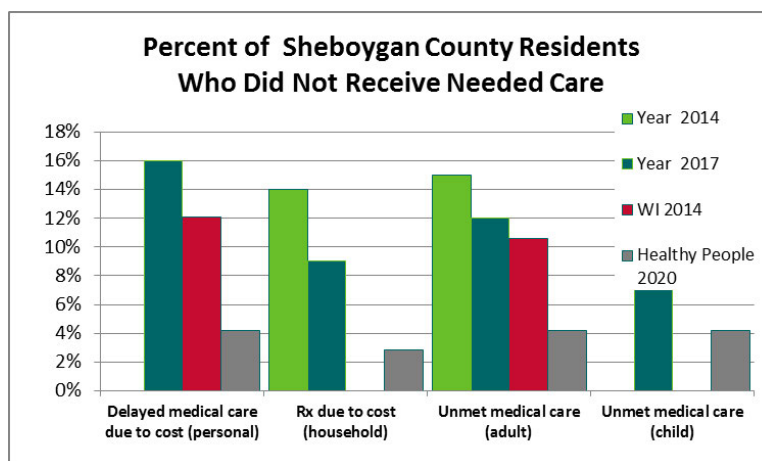
<sup>6</sup> Healthy People 2020 – Oral Health. U.S. Department of Health and Human Service. Available at <http://www.healthypeople.gov/2020/topics-objectives/topic/oral-health>. Accessed April 21, 2017.

<sup>7</sup> Healthy People 2020 – Access to Health Services. U.S. Department of Health and Human Service. Available at <http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>. Accessed September 1, 2015



**Unmet mental health services** | The percentage of respondents with an unmet mental health care need in the past year was 4% in 2017. This means approximately 3,560 adults in Sheboygan went without needed mental health services (Source #1).

**Why is this significant?** Mental health and physical health are interconnected. An unmet mental health need can lead to further complications and increase future costs; the burden of mental illness and unwellness is among the highest of all diseases. Screening, early detection and access to services can improve outcomes and over time can provide savings to the health care system.<sup>8</sup>



## Coverage

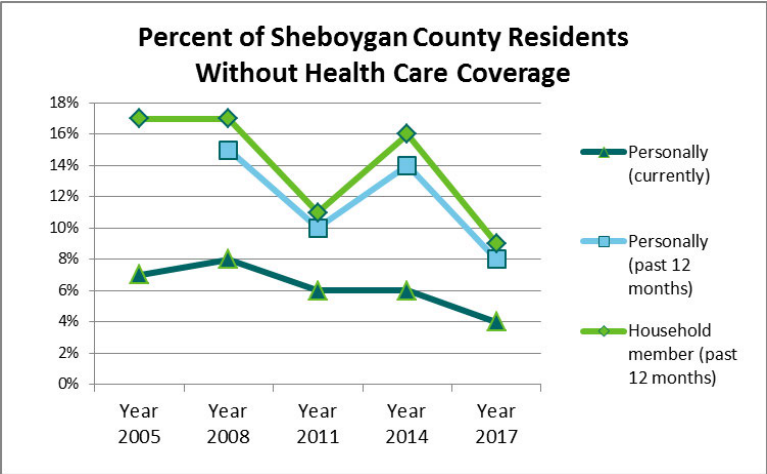
**Health care coverage** | In 2017, 4% of adults reported they personally were not currently covered with health care insurance, down significantly from 7% in 2005. In addition, 8% of adults reported they personally did not have health care coverage at least part of the time in the past 12 months compared to 15% in 2008. Nine percent of adults reported a household member was not covered at least part of the time in the past year, a significant decrease from 15% in 2005. Those in the bottom 40 percent household income bracket were more likely to report this (Source #1).

- The *Healthy People 2020* target for health care coverage is 100%.

**Why is this significant?** Adults without consistent health care coverage are more likely to skip medical care because of cost concerns, which can lead to poorer health, higher long-term health care costs and early death.<sup>9</sup>

<sup>8</sup> Healthy People 2020 – Mental Health and Mental Disorders. U.S. Department of Health and Human Service. Available at <https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders>. Accessed April 21, 2017.

<sup>9</sup> Healthy People 2020 – Access to Health Services. U.S. Department of Health and Human Service. Available at <http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>. Accessed April 21, 2017.



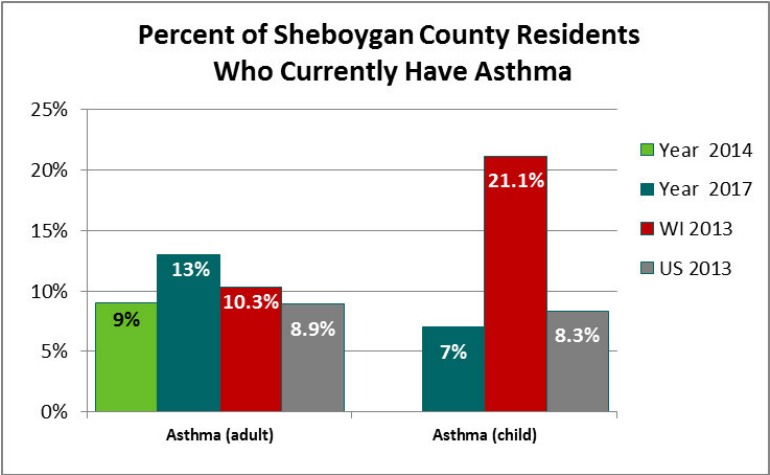
Chronic disease: asthma, diabetes, heart disease, overweight/obesity and cancer

Top Health Issue

Chronic conditions such as asthma, diabetes, heart disease and cancer can result in health complications, compromised quality of life and burgeoning health care costs; chronic diseases account for 86% of health care costs nationwide.<sup>10</sup> Chronic diseases were identified as one of the top five health issues in the community by the residents (Source#1) and key informants (Source #3).

**Asthma** | In 2017, 13% of adults reported asthma (current), up significantly from 6% in 2005. This is higher compared to the 10.6% for the state and 9.0% for the United States. Respondents who were in the bottom 60 percent household income bracket were more likely to report having asthma. However, 7% of the children of the surveyed households currently had asthma in 2017, which is below the national level of 8.3% (Source #1).

**Why is this significant?** Without proper management, asthma can lead to high health care costs.<sup>11</sup> Management of the disease with medical care and prevention of attacks by avoiding triggers is essential.



<sup>10</sup> Centers for Disease Control and Prevention - Chronic Disease Prevention and Health Promotion. Available at <http://www.cdc.gov/chronicdisease/index.htm>. Accessed April 21, 2017.

<sup>11</sup> Centers for Disease Control and Prevention - Asthma. Available at <http://www.cdc.gov/asthma/default.htm>. Accessed April 21, 2017.

**Diabetes** | In 2017, 3% of adults reported diabetes in the past three years, an upward trend since 2005 (7%). Respondents who were aged 65 years or older were more likely to report having diabetes (Source #1).

**Why is this significant?** Diabetes may lead to serious health complications including heart disease, blindness, kidney failure and lower-extremity amputations; it is the seventh leading cause of death in the US.<sup>12</sup>

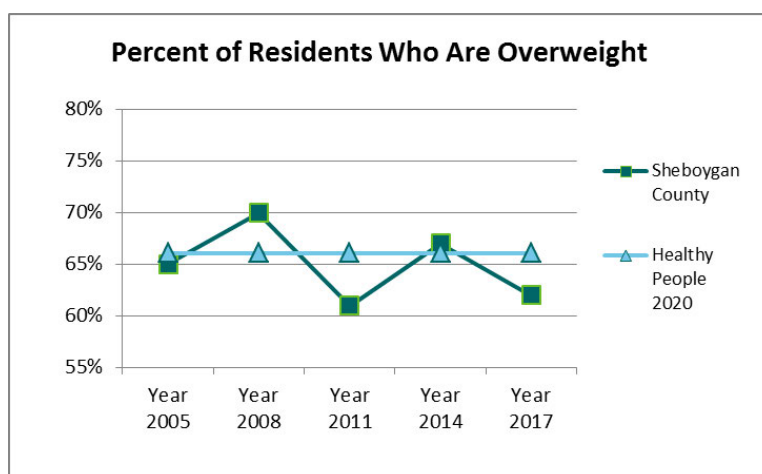
**Heart disease or heart condition** | In 2017, 11% of adults reported heart disease or heart condition in the past three years, an even trend since 2005. Respondents who were 65 and older were more likely to report heart disease or heart condition (Source #1).

**Why is this significant?** The term “heart disease” refers to several types of heart conditions, such as coronary artery disease, angina, heart failure and arrhythmias. High blood pressure, high cholesterol and smoking are key risks for heart disease.<sup>13</sup> Chronic conditions such as heart disease can result in health complications, compromised quality of life and burgeoning health care costs.

**Overweight/Obesity** | In 2017, 62% of adults in Sheboygan County were classified as being overweight, a statistically flat trend from the baseline of 65% in 2005. Since 62% of adults in Sheboygan County in 2017 were classified as overweight; this means 38% of adults were classified as a healthy weight. However, the percentage of Sheboygan County adults who were classified as being obese increased significantly from 21% in 2005 to 32% in 2017 (Source #1).

Top  
Health  
Issue

In the Sheboygan County Community Health Survey, the category “overweight” includes overweight and obese respondents. One nationally used definition of overweight status developed by the CDC is when a person’s body mass index (BMI) is greater or equal to 25.0. A BMI of 30.0 or more is considered obese. Body Mass Index is calculated by using weight in kilograms/height in meters<sup>2</sup> (Source #1).



– The *Healthy People 2020* goal for healthy weight is 33.9%.

<sup>12</sup> Centers for Disease Control and Prevention. - Diabetes Public Health Resources. Available at <http://www.cdc.gov/basics/diabetes.html>. Accessed April 21, 2017.

<sup>13</sup> Centers for Disease Control and Prevention - Heart Disease. Available at <https://www.cdc.gov/heartdisease/about.htm>. Accessed April 21, 2017.

**Why is this significant?** Overweight and obesity can increase the risk for high blood pressure, high cholesterol levels, coronary heart disease, type 2 diabetes, stroke, some cancers, low quality of life and other health conditions.<sup>14</sup>

**Cancer** | The 2009-2013 cancer age-adjusted incidence rate in Sheboygan County was 484.1 per 100,000 population, higher compared to the state at 473.2 per 100,000. The table below compares Sheboygan County's age-adjusted cancer incidence and mortality rates per 100,000 population with the rates for Wisconsin (WI), national (US), and *Healthy People 2020* objectives (HP2020) (Source #2).

**Why is this significant?** A person's cancer risk can be reduced in a number of ways including, but not limited to, receiving regular medical care and screenings, avoiding tobacco, limiting alcohol use, avoiding excessive exposure to ultraviolet rays from the sun and tanning beds, eating a diet rich in fruits and vegetables, maintaining a healthy weight and being physically active.<sup>15</sup>

Cancer	Sheboygan	WI	US	HP2020	Status
Female Breast Cancer Incidence Rate	70.6	125.4	123.7	na	●
Cervical Cancer Incidence Rate	3.8	6.3	na	na	●
Male Colorectal Cancer Incidence Rate	47.0	42.4	44.2	na	■
Female Colorectal Cancer Incidence Rate	29.4	31.6	33.6	na	●
Male Lung/Bronchus Cancer Incidence Rate	72.3	66.7	69.8	na	■
Female Lung/Bronchus Cancer Incidence Rate	49.1	53.4	51.5	na	●
Prostate Cancer Incidence Rate	54.1	103.2	101.6	na	●
Female Breast Cancer Mortality Rate	20.9	21.4	20.7	20.7	■
Cervical Cancer Mortality Rate	na	1.7	na	2.2	na
Male Colorectal Cancer Mortality Rate	20.2	18.6	17.3	14.5	■
Female Colorectal Cancer Mortality Rate	12.9	11.9	12.1	14.5	●
Male Lung/Bronchus Cancer Mortality Rate	56.6	56.1	53.9	45.5	■
Female Lung/Bronchus Cancer Mortality Rate	36.9	40.8	35.4	45.5	●
Prostate Cancer Mortality Rate: Age-Adjusted	20.2	23.5	19.2	21.8	●

\*If Sheboygan County's rate meets or exceeds the HP2020 benchmark, then a green circle (●) is shown under "Status". Conversely, if the community falls below the 2020 goal, then a red square (■) is shown. If the CDC did not set a HP2020 goal in a specific health indicator, then the community's health information is compared with the U.S. goal. If no information is available under HP2020 or national data, or community data, then "na" is displayed for "not available".

### Health risk behaviors: alcohol use, substance use, tobacco use, nutrition and physical activity

Four modifiable health risk behaviors are responsible for the main share of premature death and illness related to chronic diseases: excessive alcohol consumption, tobacco use and exposure, poor nutrition and lack of physical activity.<sup>16</sup>

<sup>14</sup> Centers for Disease Control and Prevention – Physical Activity for a Healthy Weight. Available at <https://www.cdc.gov/healthyweight/effects/index.html>. Accessed April 21, 2017.

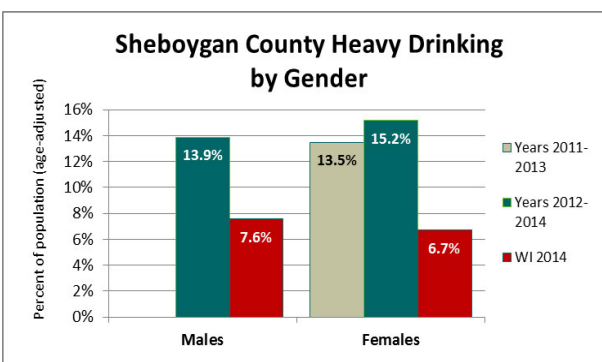
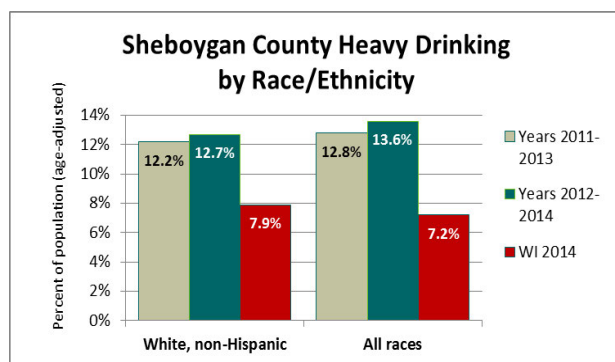
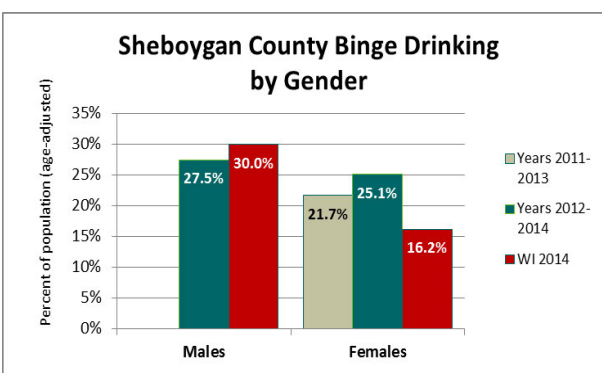
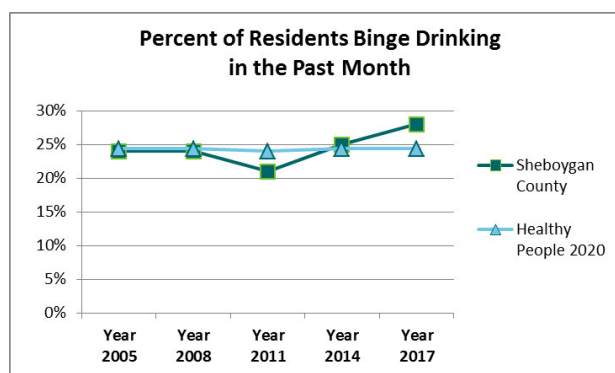
<sup>15</sup> Centers for Disease Control and Prevention – Cancer. Available at <https://www.cdc.gov/cancer/dccp/prevention/>. Accessed April 21, 2017.

<sup>16</sup> Centers for Disease Control and Prevention-Chronic Disease Overview. Available at <http://www.cdc.gov/chronicdisease/overview/index.htm>. Accessed April 21, 2017.

**Alcohol use** | In 2017, 28% of adults in Sheboygan County reported binge drinking in past month, a level trend since 2005 and higher compared to the state (22.1%) and the United States (16%). Respondents in the top 40 percent household income bracket were more likely to report binge drinking in the past month (Source #1). In Sheboygan County, females had a higher rate of binge drinking compared to state levels, but males had a lower rate than the state. Also, both Sheboygan County males and females had higher rates of heavy drinking compared to their state counterparts (Source #2). In addition, 4.0% of the population stated that they drove or rode in a vehicle when the driver had too much to drink (Source #1).

**Top Health Issue**

Excessive drinking reflects the percent of adults who report either binge drinking or heavy drinking. According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA), binge drinking is defined as alcohol consumption that brings the blood alcohol concentration to 0.08% or more; this is generally achieved through consuming four or more alcoholic beverages for women or five or more for men within approximately two hours. In addition, the NIAAA defines heavy drinking as drinking more than one drink for women or two drinks for men per day on average.<sup>17</sup> Alcohol (and other drugs) was identified as one of the top three health issues in the county by the residents (Source #1) and key stakeholders (Source #3).



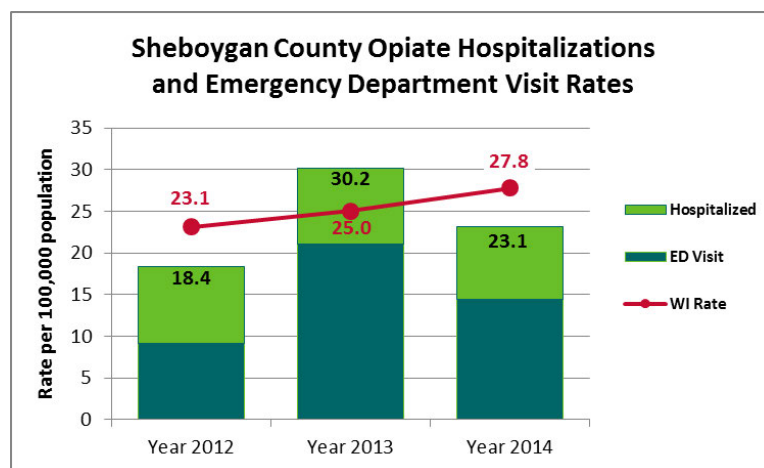
- The *Healthy People 2020* goal for binge drinking among adults is 24.4%.

<sup>17</sup> National Institute on Alcohol Abuse and Alcoholism – Alcohol & Your Health. Available at <http://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking>. Accessed April 21, 2017.

**Why is this significant?** Binge drinking is associated with an array of health problems including, but not limited to, unintentional injuries (e.g. car crashes, falls, burns, drownings), intentional injuries (e.g., firearm injuries, sexual assault, domestic violence), alcohol poisoning, sexually transmitted infections, unintended pregnancy, high blood pressure, stroke and other cardiovascular diseases, and poor control of diabetes. Binge drinking is extremely costly to society from losses in productivity, health care, crime and other expenses.<sup>18</sup>

**Substance use** | Prescription drug mis-use is escalating statewide. In Sheboygan County, the rate of emergency department visits due to opiate poisonings (also known as opiate overdoses) was 14.4 per 100,000 population in 2014, lower than its 2013 rate of 21.1 per 100,000 population and slightly lower than the state average of 14.6 opiate poisonings per 100,000 population. In addition, Sheboygan County's hospitalization rate for opiate poisoning was 8.7 overdoses per 100,000 population compared to Wisconsin's 13.2 opiate overdoses per 100,000.<sup>19</sup> The residents and key informants all identified drug use/abuse as one of the top health issues challenging the community (Sources #1, #3).

**Top Health Issue**



- The *Healthy People 2020* goal for drug-induced deaths is 12.6 deaths per 100,000 population.

**Why is this significant?** Nationally, the amount of pain medicines prescribed and sold has almost quadrupled since 1999. Every day in the U.S., 91 people die due to an overdose of prescription opioids. The overprescribing of opiates and other pain medicines leads to medicinal abuse and overdose deaths.<sup>20</sup>

**Tobacco Use and Exposure** | In 2017, 21% of adults in Sheboygan County reported cigarette smoking in the past 30 days (current smoker), a stagnant trend since the 2005 baseline of 22%. Respondents who were in the bottom 40 percent household income bracket were more likely to report being a current smoker. In addition, 63% of current smokers in Sheboygan County tried to quit smoking in the past year, an increase from 37% in 2005. In 2017, 87% of the households prohibited smoking within the home, which is higher than the state and national levels (75.0% and 79.0%, respectively). The percentage of non-smoking respondents who were exposed to secondhand smoke in the past 7 days declined to 11% in 2016 compared to 25% in 2008 (Source #1).

<sup>18</sup> Centers for Disease Control and Prevention – Alcohol & Public Health. Available at <https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm>. Accessed April 21, 2017.

<sup>19</sup> Wisconsin Interactive Statistics on Health, 2015. Available at <https://www.dhs.wisconsin.gov/wish/injury-hosp/index.htm>, and injury-related emergency department visits module, <https://www.dhs.wisconsin.gov/wish/injury-ed/index.htm>. Accessed February 25, 2016

<sup>20</sup> Centers for Disease Control and Prevention – Injury Prevention & Control: Prescription Drug Overdose. Available at <https://www.cdc.gov/drugoverdose/epidemic/index.html>. Accessed April 21, 2017.



- The *Healthy People 2020* target is to reduce cigarette smoking by adults to 12.0% and adolescents to 16.0% and increase the percentage of current smokers to quit smoking in the past year to 80.0%. Also, it aims to increase the prohibition of smoking within the homes to 87.0% and to reduce the percentage of non-smokers exposed to secondhand smoke in the past seven days to 33.8%.

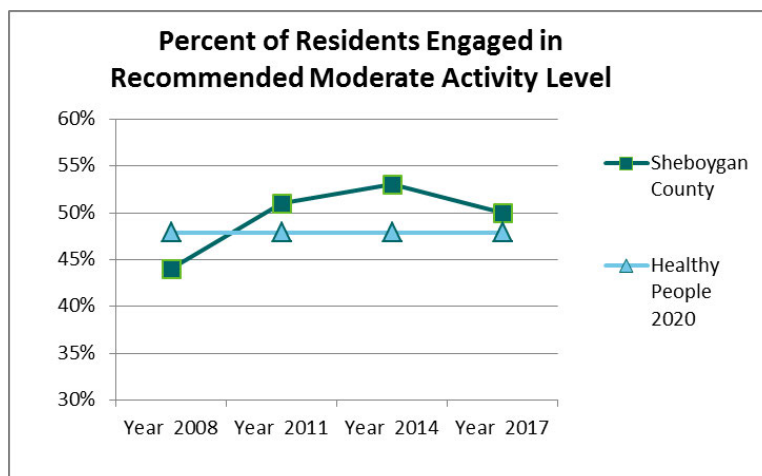
Additionally, in 2015, 13.4% of Sheboygan County mothers indicated smoking during pregnancy, slightly higher than the state rate of 13.1% (Source #2).

- The *Healthy People 2020* target is no greater than 1.4%.

**Why is this significant?** In the United States, cigarette smoking is the leading cause of preventable death.<sup>21</sup> Smoking increases the risk of coronary heart disease, stroke and several types of cancer. In addition, research has shown that smoking during pregnancy can cause health problems for both mother and baby, such as pregnancy complications, premature birth, low birth weight infants and stillbirth.

**Nutrition and physical activity |** In 2017, 50% of adults in Sheboygan County reported engaging in recommended moderate or vigorous activity, meeting the *Healthy People 2020* goal. In 2017, 68% of the children in Sheboygan County engaged in physical activity for 60 minutes at least five days out of the week. However, in 2017, 55% of adults in Sheboygan County reported eating the recommended fruit servings while 24% of adults reported eating the recommended vegetable servings; Sheboygan County adults' vegetable consumption remained steady and fruit consumption decreased since 2005. Respondents who were female or in the top 60 percent income bracket were more likely to report engaging in the recommended amount of activity and consuming the recommended amount of fruits and vegetables (Source #1). Based on the *2016 County Health Rankings* for Sheboygan County, 2% of the population had limited access to healthy foods.<sup>22</sup> This was lower than the state (5.0%), and higher than the national benchmark (0% of the population had limited access to healthy foods) (Source #2). Key informants identified nutrition as a top five health issue (Source #3).

Top Health Issue



<sup>21</sup> Centers for Disease Control and Prevention – Smoking & Tobacco Use. Available at <http://www.cdc.gov/tobacco/index.htm>. Accessed September 1, 2015

<sup>22</sup> Note: Limited access to healthy foods captures the percentage of the population who are low income and do not live close to a grocery store. In rural areas, living close to a grocery store means living less than 10 miles from a grocery store whereas in non-rural areas it is less than 1 mile. Low income is defined as having an annual family income of less than or equal to 200% of the federal poverty threshold for the family size.

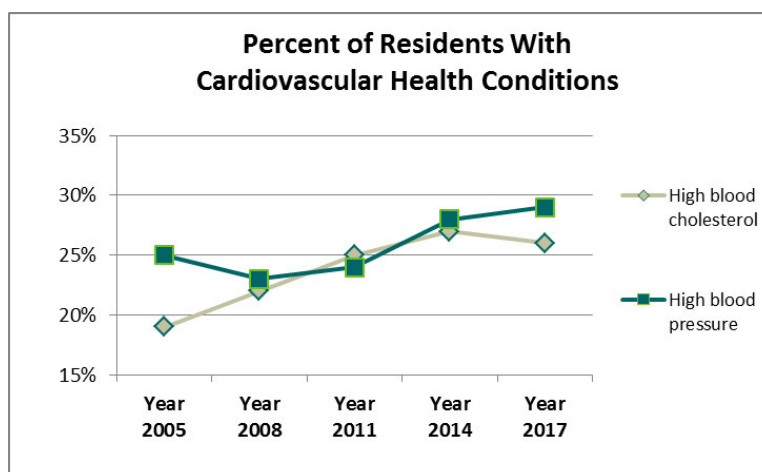
- The *Healthy People 2020* target is to increase the percentage of adults engaged in the recommended moderate or vigorous physical activity to 47.9% and to reduce the percentage of students playing videos or using the computer for non-school work three or more hours on an average school day to 17.4%.

**Why is this significant?** Inactive adults have a higher risk for obesity, coronary heart disease, type 2 diabetes, stroke, some cancers, depression and other health conditions. A healthy and balanced diet, including eating fruits and vegetables, is associated with reduced risk for many diseases, including several of the leading causes of death: heart disease, cancer, stroke and diabetes. An energy imbalance, or eating more calories than one expends through physical activity, can increase one's risk for overweight and obesity.<sup>23</sup>

### Health risk factors: high blood pressure and high blood cholesterol

**High blood pressure and high blood cholesterol |** In 2017, 29% of adults reported high blood pressure – a static trend since 2005. Respondents who were aged 65 years or older were more likely to report high blood pressure. Also, 26% of adults reported high cholesterol in the past three years in 2017, an increase from 19% in 2005 baseline. Respondents who were aged 65 years and older were more likely to report high blood pressure and high blood cholesterol (Source #1).

- The *Healthy People 2020* goal of adults with high blood pressure is 26.9% and adults with high total blood cholesterol is 13.5%.



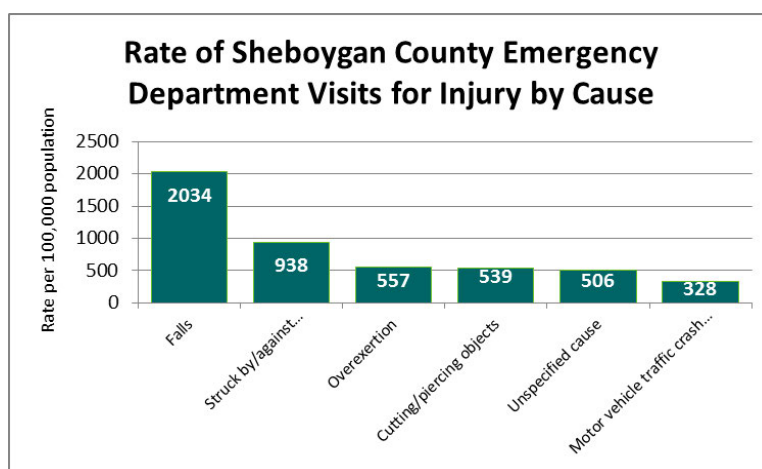
**Why is this significant?** High blood pressure increases the risk for heart disease and stroke. Likewise, high cholesterol is a risk factor for heart disease. Once identified and diagnosed, high blood pressure and cholesterol can be treated and controlled.<sup>24</sup>

<sup>23</sup> Centers for Disease Control and Prevention – Physical Activity for a Healthy Weight. Available at [http://www.cdc.gov/healthyweight/physical\\_activity/index.html](http://www.cdc.gov/healthyweight/physical_activity/index.html). Accessed April 21, 2017.

<sup>24</sup> Centers for Disease Control and Prevention – Heart Disease. Available at <https://www.cdc.gov/heartdisease/facts.htm>. Accessed April 21, 2017.

## Injury and Violence

**Injury hospitalization** | The 2014 Sheboygan County injury-related hospitalizations rate was 719.1 per 100,000, which is lower compared to the state (894.6 per 100,000) but exceeds the *Healthy People 2020* target. The injury-related emergency department (ED) visit rate for Sheboygan County was 6,124.9 per 100,000, which is lower than the Wisconsin rate (7,167.8 per 100,000) and lower than the U.S. rate (9,972.0 per 100,000).<sup>25</sup> However, the injury-related death rate in Sheboygan County was 74.6 per 100,000 population, much higher than the Wisconsin rate and the *Healthy People 2020* goal of 68.5 and 53.3 per 100,000 population respectively. The top ranked cause of injury-related ED visits was falls, more than twice as high as the second ranked cause of “struck by or against object or person” (Source #2).



- The *Healthy People 2020* target for injury-related hospitalization rate is 555.8 per 100,000; the target for injury emergency department visit is 7,533.4 per 100,000. The target for injury related death rate is 53.3 per 100,000.

**Why is this significant?** Injuries are a leading cause of death for people ages 1-44 in the United States. In 2013 alone, injuries cost the nation 671 billion dollars in lost productivity and medical care. Injuries can be prevented and their consequences reduced for infants, children and adults.<sup>26</sup>

**Youth injury** | In 2014, the total number of injury-related hospitalizations among Sheboygan County youth aged 0-17 years was 64, which is a rate of 246.3 per 100,000, lower than the state rate of 260.0.<sup>27</sup> Also in 2014, the total number of injury-related emergency room visits among Sheboygan County youth was 1,694 – a rate of 6,5118.9 per 100,000, lower than the state rate of 8,040.0 per 100,000.<sup>28</sup>

**Why is this significant?** For individuals aged 19 years and younger, injuries are the leading cause of death. Most injuries are unintentional and preventable. More than 9.2 million youth are treated in the emergency department for nonfatal injuries every year.<sup>29</sup>

<sup>25</sup> Wisconsin Interactive Statistics on Health (WISH), Available at <https://www.dhs.wisconsin.gov/wish/index.htm>. Accessed July 10, 2017.

<sup>26</sup> Centers for Disease Control and Prevention – Injury Prevention and Control. [https://www.cdc.gov/injury/wisqars/overview/key\\_data.html](https://www.cdc.gov/injury/wisqars/overview/key_data.html). Accessed April 21, 2017.

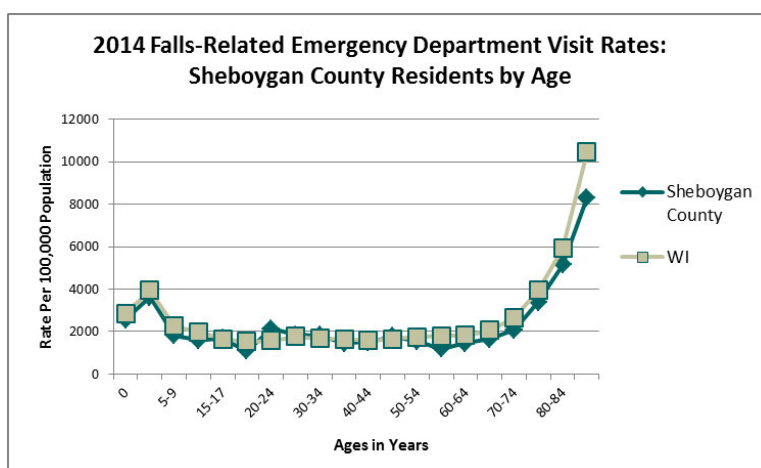
<sup>27</sup> Wisconsin Interactive Statistics on Health (WISH), Available at <https://www.dhs.wisconsin.gov/wish/index.htm>. Accessed July 10, 2017.

<sup>28</sup> Wisconsin Interactive Statistics on Health (WISH), Available at <https://www.dhs.wisconsin.gov/wish/index.htm>. Accessed July 10, 2017.

<sup>29</sup> Centers for Disease Control and Prevention – Protect the Ones You Love: Child Injuries are Preventable. Available at <http://www.cdc.gov/safekid/>. Accessed April 21, 2017.

**Older adults injury** | In 2014, the total number of injury-related emergency room visits among Sheboygan County adults aged 65 years and older was 1,037, which is a rate of 5,550.5 per 100,000, lower than the state rate of 6,781.7.<sup>30</sup> Also in 2014, the rate of injury-related hospitalizations among Sheboygan County adults aged 65 years and older was 2,141.0 per 100,000 population, lower than the state rate of 2,738.7 per 100,000.<sup>31</sup> For Sheboygan County adults aged 65 years and older, the rate of injury-related hospitalizations due to falls was 1,568.3 per 100,000, lower than the Wisconsin rate of 1,971.1 per 100,000 population.<sup>32</sup>

**Why is this significant?** Of adults aged 65 years or older, one in four experience a fall each year but less than half inform their healthcare providers about it. Most fractures among older adults are due to falls. Besides fractures, older adults who suffered from a fall have lacerations, traumatic brain injuries and experience a fear of falling, thus limiting their future activities.<sup>33</sup>



**Sexual violence** | Sexual violence is defined as sexual activity when consent is not obtained or not given freely.<sup>34</sup> The rate of rape for Sheboygan County was 25.2 reports per 100,000 persons, higher than Wisconsin's overall rate of 24.3 per 100,000 in 2012.<sup>35</sup> Sexual assault and rape are underreported and the definition of sexual assault varies across different agencies; therefore, the number and rate may vary depending on the source.

<sup>30</sup> Wisconsin Interactive Statistics on Health (WISH), Available at <https://www.dhs.wisconsin.gov/wish/index.htm>. Accessed July 10, 2017.

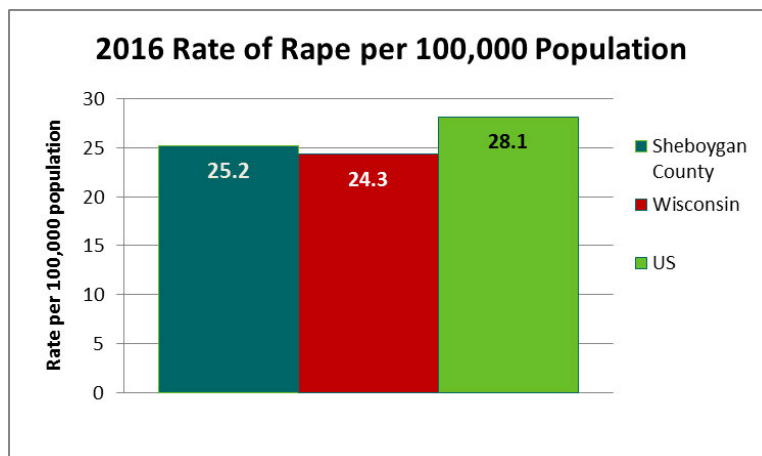
<sup>31</sup> Wisconsin Interactive Statistics on Health (WISH), Available at <https://www.dhs.wisconsin.gov/wish/index.htm>. Accessed July 10, 2017.

<sup>32</sup> Wisconsin Interactive Statistics on Health (WISH), Available at <https://www.dhs.wisconsin.gov/wish/index.htm>. Accessed July 10, 2017.

<sup>33</sup> Centers for Disease Control and Prevention – Home and Recreational Safety. Available at <https://www.cdc.gov/homeandrecreationalafety/falls/adultfalls.html>. Accessed April 21, 2017.

<sup>34</sup> Centers for Disease Control and Prevention – Violence Prevention: Sexual Violence. Available at <https://www.cdc.gov/violenceprevention/sexualviolence/index.html>. Accessed April 21, 2017.

<sup>35</sup> Wisconsin Department of Justice, Crime in Wisconsin 2012, September 2013. Available at <https://wilenet.org/html/justice-programs/programs/justice-stats/library/crime-and-arrest/2012-crime-in-wi.pdf>. Accessed February 22, 2016



**Why is this significant?** Sexual violence can have harmful and lasting consequences for victims, families, and communities including, but not limited to, unintended pregnancy, sexually transmitted infections, long term physical consequences, immediate and chronic psychological consequences, health behavior risks and financial cost to victims, families and communities.<sup>36</sup>

**Other violence |** The rate of aggravated assault for Sheboygan County in 2016 was 116.3 reports per 100,000 persons, lower than Wisconsin's overall rate of 186.9 per 100,000.<sup>37</sup> In Wisconsin, the rate of Child Protective Services (CPS) reports was 32.5 per 1,000 children in 2014; Sheboygan County's rate was lower at 28.3 reports per 1,000 children (Source #2).

**Why is this significant?** Violence has a lasting effect throughout one's life. Survivors of violence may suffer from physical, emotional, social and other health problems.<sup>38</sup>

## Reproductive Health

**Pap test screening |** In 2016, 82% of women in Sheboygan County reported having a pap test within three years, statistically similar to 2005. Sheboygan County women in the top 40 percent household income bracket were more likely to receive the pap test screening within the recommended timeframe (Source #1).

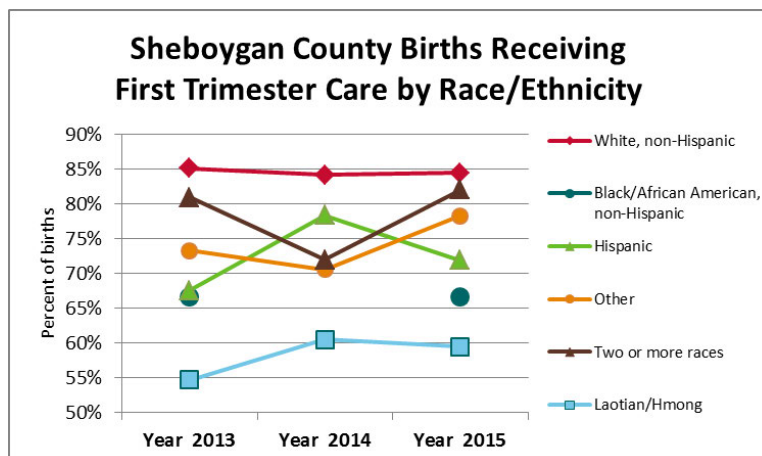
- The *Healthy People 2020* target for women having a pap test within three years is 93.0%.

**Births receiving first trimester care |** From 2008 to 2015, the percent of births receiving first trimester care in Sheboygan County decreased from 89.3% in to 80.5%, but was higher compared to the state (75.5%) (Source #2).

<sup>36</sup> Centers for Disease Control and Prevention – Violence Prevention/Sexual Violence: Consequences. Available at <https://www.cdc.gov/violenceprevention/sexualviolence/consequences.html>. Accessed April 21, 2017.

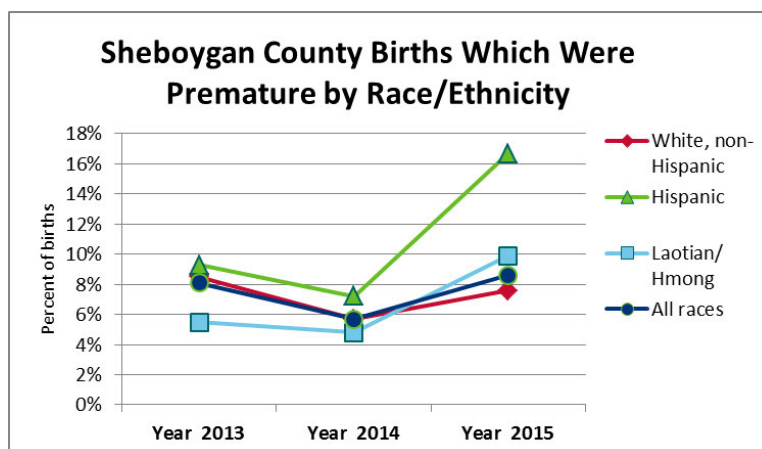
<sup>37</sup> Wisconsin Department of Justice, UCR Offense Data, 2016. Available at <https://www.doj.state.wi.us/dles/bjia/ucr-offense-data>. Accessed June 29, 2017.

<sup>38</sup> Centers for Disease Control and Prevention – Violence Prevention. Available at <https://www.cdc.gov/violenceprevention/index.html>. Accessed April 21, 2017.



- The *Healthy People 2020* target for births receiving first trimester care is 77.9%.

**Premature births** | From 2008 to 2015, the percent of premature births (before 37 weeks) in Sheboygan County increased from 8.1% to 8.6%, and was lower compared to the state (9.3%) (Source #2).



- The *Healthy People 2020* target for premature births is 11.4%.

**Low birth weight** | From 2008 to 2015, the percent of low birth weight births (less than 2,500 grams or approximately 5.5 pounds) in Sheboygan County increased from 6.1% to 7.0%, but was lower compared to the state (7.3%) (Source #2).

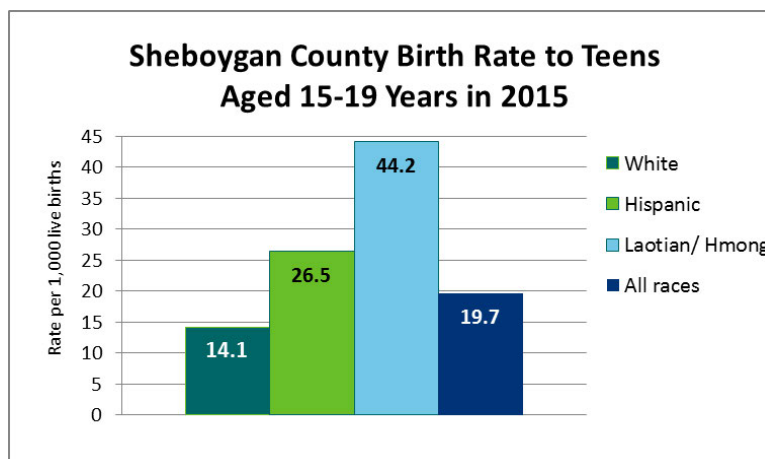
- The *Healthy People 2020* target for low birth-weight births is 7.8%

**Why is this significant?** Preconception and early prenatal care improves mother and infant outcomes. Babies born prematurely (three weeks or earlier than their due date) or with a low birth weight (less than 2,500 grams or about 5.5 pounds) experience a greater risk for an adverse outcome, including a serious disability or death.<sup>39</sup>

<sup>39</sup> Centers for Disease Control and Prevention – Infant Mortality. Available at <https://www.cdc.gov/features/infantmortality/index.html>. Accessed April 21, 2017.



**Birth rate to teens** | In 2015, births among Sheboygan County females aged 15-17 years was 7.8 per 1,000 females, higher than the state rate of 6.6 births per 1,000 females. For Sheboygan County females aged 15-19 years, the birth rate was 19.7 per 1,000 females, higher than the state rate of 16.4 births per 1,000 females. Rate is highest among Laotian/Hmong and Hispanic/Latina teen moms (Source #2).



**Infant Mortality** | From 2013 to 2015, the rate of infants dying before their first birthday in Sheboygan County decreased from 2.4 deaths per 1,000 live births to 0.0 deaths per 1,000 live births, lower than the statewide rate of 5.7 deaths per 1,000 live births (Source #2).

- The *Healthy People 2020* target for rate of infant deaths (within one year) is 6.0 per 1,000 live births.

### Mental health

**Mental health conditions** | According to the *County Health Rankings*, Sheboygan County adults reported an average of 3.3 mentally unhealthy days in the past 30 days, less than the state average of 3.5 days (Source #2). In 2017, 19% of Sheboygan County adults reported a mental health condition (such as depression, anxiety disorder or post-traumatic stress disorder) in the past three years, comparable to 2014 (20%) and 2008 (15%) (Source #1). Mental health was identified as one of the top health issues in the county by key stakeholders (Source #3).

**Top  
Health  
Issue**

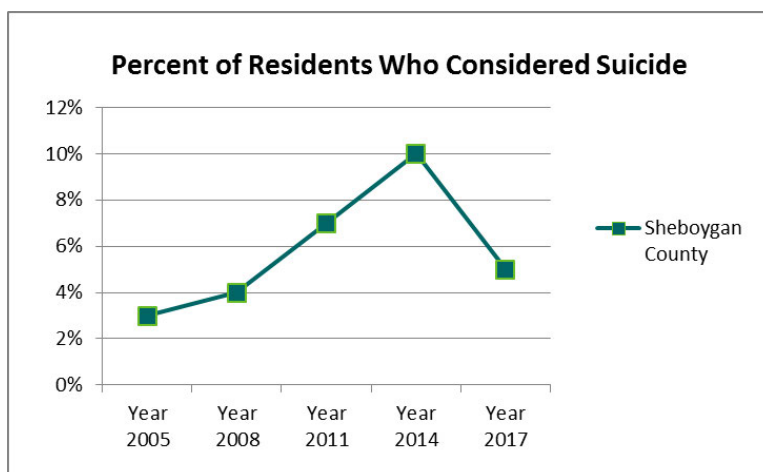
Mental health is defined as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.”<sup>40</sup> Indicators of mental health include emotional, social and psychological well-being. This definition differs from mental illness, which is classified as diagnosable mental disorders or “health conditions that are characterized by alterations in thinking, mood or behavior (or some combination thereof) associated with distress and/or impaired functioning.”<sup>41</sup> Anxiety, depression, and bipolar disorder are examples of mental illness.

<sup>40</sup> Centers for Disease Control and Prevention – Mental Health Basics. Available at <http://www.cdc.gov/mentalhealth/basics.html>. Accessed April 21, 2017.

<sup>41</sup> Centers for Disease Control and Prevention – Mental Health Basics. Available at <http://www.cdc.gov/mentalhealth/basics.html>. Accessed April 21, 2017.

**Why is this significant?** Mental health conditions are related to risk behaviors for chronic disease, such as physical inactivity, smoking, excessive drinking and insufficient sleep, and associated with chronic diseases such as cardiovascular disease, diabetes and obesity.<sup>42</sup>

**Suicide** | In 2017, 5% of adults in Sheboygan County reported feeling so overwhelmed in the past year that they considered suicide, comparable to 2005 (4%). This means approximately 3,560 adults in Sheboygan County may have considered suicide in the past year. Note: The survey did not ask how seriously, how often or how recently suicide was considered. Three percent of the households reported having a child who was always or nearly always sad, unhappy or depressed in the past six months (Source #1). Additionally, in 2015, there were 15 suicides in Sheboygan County at a rate of 13.0 per 100,000, lower than the Wisconsin rate of 15.2 per 100,000 population (Source #2).



- The *Healthy People 2020* target is 10.2 suicides per 100,000.

**Why is this significant?** A serious public health problem, suicide can have lasting harmful effects on individuals, their families and the communities. While its causes are complex and multifaceted, the aim of suicide prevention is to reduce factors that decrease risk factors and promote resilience.<sup>43</sup>

<sup>42</sup> Centers for Disease Control and Prevention – Mental Health Basics. Available at <http://www.cdc.gov/mentalhealth/basics.html>. Accessed April 21, 2017.

<sup>43</sup> Centers for Disease Control and Prevention – Suicide Prevention. Available at <http://www.cdc.gov/ViolencePrevention/suicide/index.html>. Accessed April 21, 2017.

### Section 4 | Prioritized significant health needs

#### Criteria for prioritizing significant health need

During 2012 an ad hoc committee of the Aurora Health Care Board of Directors' Social Responsibility Committee undertook a five-month process to identify a common need in all Aurora Health Care service areas. The ad hoc committee presented its final recommendation to the Social Responsibility Committee in October of 2012 and, for the purpose of developing community benefit implementation strategies, a "signature community benefit focus" for all Aurora Health Care hospital facilities was determined:

- A demonstrable increase in "health home" capacity and utilization by underserved populations across Aurora's footprint (Medicaid-eligible and uninsured)

During 2017, Aurora hospital facility leaders prioritized significant needs based on the following criteria:

- Meets a defined community need (i.e., access for underserved populations)
- Aligns community benefit to organizational purpose and clinical service commitment to coordinate care across the continuum
- Aligns with hospital resources and expertise and the estimated feasibility for the hospital to effectively implement actions to address health issues and potential impact
- Reduces avoidable hospital costs by redirecting people to less costly forms of care and expands the care continuum
- Has evidence-basis in cross-section of the literature for management of chronic diseases in defined populations
- Leverages existing partnerships with free and community clinics and Federally Qualified Health Centers (FQHCs)
- Resonates with key stakeholders as a meaningful priority for the Aurora hospital to address
- Potential exists to leverage additional resources to extend impact
- Increases collaborative partnerships with others in the community by expanding the care continuum
- Improves the health of people in the community by providing high-quality preventive and primary care
- Aligns hospital resources and expertise to support strategies identified in municipal health department Community Health Improvement Plan (CHIP)
- Quantifying health issues based on the *Hanlon Method for Prioritizing Health Problems*<sup>44</sup> (see Appendix E for details)

**Using this criteria, Aurora Sheboygan Memorial Medical Center has prioritized the significant health needs to address in our implementation strategy:**

- Access and coverage
- Behavioral health
- Chronic disease
- Women and children's health
- Sexual assault and abuse response
- Social determinants of health – employment and food security

#### Significant health needs not being addressed in the implementation strategy and the reason:

The implementation strategy does not include specific strategies and goals for asthma and high blood cholesterol as these are part of the standard continuum of clinical care at ASMMC and Aurora clinics. Additionally, one of the aims of increasing access to health care, specifically primary care, is to address the health risk factors and behaviors that put people at greater risk for health complications and disease.

<sup>44</sup> National Association of County & City Health Officials (NACCHO) – First Things First: Prioritizing Health Problems. Available at <http://archived.naccho.org/topics/infrastructure/accreditation/upload/Prioritization-Summaries-and-Examples.pdf>, accessed August 23, 2017.

## Section 5 | Community resources and assets

The assessment identified a multitude of community resources and assets in the community hospital benefit programs, primary and specialty health care providers and dentists, municipal governments and their departments, public and private schools and many religious organizations. The *Sheboygan County Health Needs Assessment: A Summary of Key Informant Interviews Report 2017* describes available community health resources and assets under each health issue as noted by the interviewed community members. The organizations listed as providing key informants for interviews are assets and resources for the community as well. Specific resources leveraged by ASMMC are identified in the Implementation Strategy. For details, see Appendix C.

## Section 6 | Evaluation of impact: ASMMC's 2014 CHNA Report / 2015 Implementation Strategy

The impact of the initiatives identified in ASMMC's *2014 Community Health Needs Assessment Report / 2015-2017 Implementation Strategy* plan was executed with some successes. Successes at ASMMC included providing additional access to care, executing behavioral health initiatives and conducting chronic disease prevention and screenings. For detailed evaluation of impact, see Appendix F.

This Community Health Needs Assessment (CHNA) Report was adopted by the Social Responsibility Committee of the Aurora Health Care Board of Directors on December 14, 2017.

To submit written comments about the Community Health Needs Assessment (CHNA) report or request a paper version of the report, go to [www.aurora.org/commbenefits](http://www.aurora.org/commbenefits).

## Appendix A | Sheboygan County Community Health Survey Report (Source#1)

The report is available at [www.aurora.org/commbenefits](http://www.aurora.org/commbenefits)

**Data collection and analysis:** The community health survey, a comprehensive phone-based survey, gathers specific data on behavioral and lifestyle habits of the adult population and select information about the respondent's household. In addition, this report collects data on the prevalence of risk factors and disease conditions existing within the adult population, and compares, where appropriate and available, health data of residents to state and national measurements. Conducted approximately every three years, the survey can be used to identify community trends and changes over time. The health topics covered by the community health survey are provided in the Sheboygan County Community Health Survey Report Summary (Appendix D).

Respondents were scientifically selected so that the survey would be representative of all adults 18 years old and older. The sampling strategy was two-fold. 1) A random-digit-dial landline sample of telephone numbers which included listed and unlisted numbers. The respondent within each household was randomly selected by computer based on the number of adults in the household (n=300). 2) A cell phone-only sample where the person answering the phone was selected as the respondent (n=100). At least 8 attempts were made to contact a respondent in both samples. Screener questions verifying location were included.

A total of 400 telephone interviews were completed between January 11 and February 1, 2017. With a sample size of 400, we can be 95% sure that the sample percentage reported would not vary by more than  $\pm 5$  percent from what would have been obtained by interviewing all persons 18 years old and older who lived in Sheboygan County. When applicable, the data was compared with measures from the *Behavioral Risk Factor Surveillance System* (BRFSS) and indicators established by *Healthy People 2020*.

When using percentages from this study, it is important to keep in mind what each percentage point, within the margin of error, actually represents in terms of the total adult population. One percentage point equals approximately 890 adults or 470 households.

The margin of error for smaller subgroups will be larger. For the landline sample, weighting was based on the number of adults in the household and the number of residential phone numbers, excluding fax and computer lines, to take into account the probability of selection. For the cell-phone only sample, it was assumed the respondent was the primary cell phone user. Combined, post-stratification was conducted by sex and age to reflect the 2010 census proportion of these characteristics in the area. Throughout the report, some totals may be more or less than 100% due to rounding and response category distribution. Percentages occasionally may differ by one or two percentage points from previous reports or the Appendix as a result of rounding, recoding variables or response category distribution.

**Partners & Contracts:** This report was sponsored by Aurora Health Care, HSHS St. Nicholas Hospital, Lakeshore Community Health Center, United Way of Sheboygan County and the University of Wisconsin Extension-Sheboygan County in partnership with Sheboygan County Division of Public Health. The data was analyzed and prepared by JKV Research, LLC. Data collection was conducted by Management Decisions Incorporated.

## Appendix B | Sheboygan County Health Data Report: A summary of secondary data sources (2017) (Source #2)

The report is available at [www.aurora.org/commresearch](http://www.aurora.org/commresearch)

**Data Collection & Analysis:** In spring of 2017, the Center for Urban Population Health was enlisted to compile secondary data to supplement the community health survey and key informant interviews. This report summarizes the demographic and health-related information for Sheboygan County.

Publicly available data sources used for the Secondary Data Report

Source	Description
<b>American Community Survey</b>	<i>American Community Survey</i> provides access to data about the United States. The data comes from several censuses and surveys. The American Community Survey (ACS) is a nationwide survey designed to provide information of how communities are changing. ACS collects and produces population and housing information every year, and provides single and multi-year estimates. <i>Source: United States Department of Commerce, US Census Bureau</i>
<b>County Health Rankings</b>	Each year the overall health of almost every county in all 50 states is assessed and ranked using the latest publically available data. Ranking includes health outcomes (mortality and morbidity) and health factors (health behaviors, clinical care, social and economic factors and physical environment). <i>Source: Collaboration of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.</i>
<b>Wisconsin Department of Health Services – Data &amp; Statistics</b>	All reportable communicable disease case counts, including sexually transmitted diseases (STD) and HIV incidence, are based on case reports for 2015. Reports are available for Wisconsin statewide, the five DPH regions, and the 72 Wisconsin counties. <i>Source: Wisconsin Department of Health Services</i>
<b>Wisconsin Interactive Statistics on Health (WISH)</b>	WISH uses protected databases containing Wisconsin data from a variety of sources and provides information about health indicators (measure of health). Select topics include Behavioral Risk Factor Survey, birth counts, fertility, infant mortality, low birth weight, prenatal care, teen births, cancer, injury emergency department visits, injury hospitalizations, injury mortality, mortality and violent death. <i>Source: Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics</i>

Data for each indicator is presented by race, ethnicity and gender when the data is available. In some cases data is not presented by the system from which it was pulled due to internal confidentiality policies which specify that data will not be released when the number is less than five. In other cases, the data were available but the rates or percentages are not presented in this report. This is due to the indicator having small numbers in the numerator or denominator resulting in rates or percentages that were subject to large year to year fluctuations and, as such, would not have provided a meaningful representation of the data for the population subset. When applicable, *Healthy People 2020* objectives are presented for each indicator. The objectives were not included unless the indicator directly matched with a *Healthy People 2020* objective

**Partners & Contracts:** This report was sponsored by Aurora Health Care, HSHS St. Nicholas Hospital, Lakeshore Community Health Center, United Way of Sheboygan County and the University of Wisconsin Extension-Sheboygan County in partnership with Sheboygan County Division of Public Health. The report was prepared by the Center for Urban Population Health.



## Appendix C | Sheboygan County Health Needs Assessment: A summary of key informant interviews (2017) (Source #3)

The report is available at [www.aurora.org/commresearch](http://www.aurora.org/commresearch)

**Data Collection and Analysis:** Twenty-five individual interviews representing thirty-two organizations were conducted between January and April 2017. The organizations were selected based on the following criteria:

- Provided a broad interest of the community and the health needs in Sheboygan County,
- Comprised of leaders within the organization with knowledge or expertise relevant to the health needs of the community, health disparities or public health, and/or
- Served, represented, partnered or worked with members of the medically underserved, low income and/or minority populations

Key informant interviews were conducted with leaders with broad representation from public health, education and community organizations. Cumulatively, these organizations focus on a range of public health issues and represent the broad interests of community, including medically underserved, low-income and/or minority populations.

Summary of the organizations representing the broad interest of the community

Organization	Description of the organizations <i>The description is based on information provided on the organization's website, accessed July 7, 2017</i>
Aurora Sheboygan Clinic	"Aurora Health Care is an integrated, not-for-profit, and all-for-people health care provider serving communities throughout eastern Wisconsin and northern Illinois. Today we serve communities throughout eastern Wisconsin and northern Illinois, with 15 hospitals, more than 150 clinics and 70 pharmacies in 30 communities. "
Aurora Sheboygan Memorial Medical Center	
City of Sheboygan Fire Department	"The Sheboygan Fire Department is dedicated to serving all who live, visit, work and invest in the City of Sheboygan through excellence in fire protection, rescue, emergency and non-emergency medical services, code enforcement and education, at the highest professional level in a compassionate, ethical, and cost effective manner."
City of Sheboygan Police Department	"Our Mission is to be the model of excellence in policing by working with the community and others to: fight crime, the fear of crime and disorder, enforce laws while safeguarding the constitutional rights of all people, provide quality service to all our residents and visitors; and create a work environment in which we recruit, train and develop an exceptional team of employees."
Family Connections	"Family Connections, Inc. is a Child Care Resource & Referral Agency serving Sheboygan, Manitowoc, & Fond du Lac Counties. In 1988, the organization restructured itself to reflect its growing focus on issues affecting families."
Family Resource Center of Sheboygan County	"The Family Resource Center was established in 1997 as a non-profit organization to help families in our community. We offer a 'warm line' referral service where anyone can call or stop by to get answers and connected to community resources. We focus on two prevention-based, education programs that promote literacy and offer classes and opportunities to become a volunteer."
Generations	"Established in April 2011, Generations, also known as Plymouth Intergenerational Coalition, is a nonprofit organization that was formed to create an environmentally friendly facility where generations can come together to learn, support one another, share skills, promote health and strengthen families."
HSHS St. Nicholas Hospital	"Located at 3100 Superior Ave., Sheboygan, HSHS St. Nicholas Hospital is a 185-bed nonprofit community hospital."
Lakeshore Community Action Program	"The Lakeshore Community Action Program (CAP) promotes self-sufficiency and well-being with individuals and families through results-based programs, services and partnerships delivered by an understanding staff with resources to provide appropriate solutions."

<b>Lakeshore Community Health Center</b>	"We provide primary and preventive medical, behavioral health and dental care. Lakeshore Community Health Care provides access to comprehensive, integrated health care, regardless of ability to pay, eliminating health disparities among the underserved."
<b>Mental Health America in Sheboygan County</b>	"Mental Health America in Sheboygan County (MHA) is a nonprofit mental health resource center serving Sheboygan County for over 50 years and... is affiliated with the national office of Mental Health America based in Alexandria, Virginia and shares its mission."
<b>Orange Cross Ambulance</b>	"The mission of Orange Cross Ambulance Service, Inc. is to provide the citizens and guests of Sheboygan County, professional, ethical and compassionate emergent and non-emergency care in an ever-changing environment, using the latest advancements in pre-hospital medical care. Today Orange Cross responds to requests from private party calls and 911 calls for ambulance service in the City of Sheboygan and surrounding communities."
<b>Pine Haven Christian Communities</b>	"Since 1950, Pine Haven Christian Communities has been a Christ-centered, safe haven offering quality, compassionate care to the elderly in our community. We offer seniors a range of flexible, innovative services and living options on three campuses in Sheboygan County."
<b>Plymouth School District</b>	"Our mission is to encourage everyone to see and be his/her personal best through successful learning experiences."
<b>Prevea Health System</b>	"Prevea Health is an integrated multi-specialty group."
<b>Safe Harbor of Sheboygan County</b>	"Established in September 1990 as a domestic abuse program, Safe Harbor of Sheboygan County, Inc. provides prevention, intervention, education and outreach services to empower individuals, families and the community to end domestic abuse and sexual assault. We provide our services at no cost to the recipient and are unique in Sheboygan County."
<b>Samaritans Hand</b>	"Samaritans Hand is a faith-based drug and alcohol outpatient clinic for the Sheboygan area and lake shore communities."
<b>Sheboygan County Administrator</b>	"As the Chief Administrative Officer, I provide executive management and oversight to all operations of Sheboygan County government."
<b>Sheboygan County Chamber of Commerce</b>	"The Chamber's staff of thirteen professionals works to serve the Board and the membership – and the well-being of the business climate in Sheboygan County."
<b>Sheboygan County Child &amp; Family Services</b>	"The Division of Children & Family Services works with families who are experiencing difficulties in the areas of child abuse and neglect and juvenile justice."
<b>Sheboygan County Division of Public Health</b>	"Our mission is to strengthen the community of Sheboygan County by encouraging healthy behaviors, preventing disease, and protecting members of our community."
<b>Sheboygan County Aging &amp; Disability Resource Center</b>	"The Mission of the Aging and Disability Resource Center (ADRC) of Sheboygan County is to empower and support seniors, people with disabilities, and their families to ask for help, find a way to live with dignity and security, and achieve maximum independence and quality of life."
<b>Sheboygan County Health and Human Services</b>	"The Sheboygan County Health and Human Services Department is the County's comprehensive health and human services planning and delivery agency... It provides information and assistance to persons facing economic crisis, health risks, challenges to child, family and community wellness, life changes associated with aging, and other needs."
<b>Sheboygan County Interfaith Organization</b>	"Sheboygan County Interfaith Organization-SCIO is a spiritually based organization of faith communities in Sheboygan County. Our shared values bring us together to educate and advocate for social justice, dignity, and to improve the quality of life for all people. We bridge the gap between community needs and partner resources."
<b>Sheboygan County Medical Examiner</b>	"The Medical Examiner's office investigates deaths in Sheboygan County that are reportable under Wisconsin Statutes 30.67, 346.71, 350, 155, 979.01 & 979.025."

<b>Sheboygan County Sheriff's Office</b>	"To serve all citizens of Sheboygan County by providing the highest level of professional law enforcement, correctional and support services possible. We will work together in partnership with our community to continually improve and sustain public safety and quality of life."
<b>Sheboygan County Veterans Services Office</b>	"The Sheboygan County Veterans Service Department will provide timely and quality service for veterans seeking assistance with local, state, and federal benefit programs. We advocate for and support the military veterans and their families in our county."
<b>Sheboygan County YMCA</b>	"Much more than a gym, the Sheboygan County YMCA is part of a worldwide organization dedicated to improving the health of our neighbors everywhere. We are committed to providing support, encouragement, and resources to those in need."
<b>Sheboygan Press</b>	"The Sheboygan Press is one of 10 daily newspapers within Gannett Wisconsin Media that provides readers with news, information and local advertising offers when and how they want it."
<b>United Way of Sheboygan County</b>	"United Way of Sheboygan County (UWofSC) identifies issues, develops partnerships, implements solutions, and measures results. Our goal is to create long-lasting changes by addressing the underlying causes of problems."
<b>University of Wisconsin Extension-Sheboygan County</b>	"The Sheboygan County University of Wisconsin-Extension Office is the local source of information for the University of Wisconsin system. (Our mission is) Helping the people of Wisconsin and Sheboygan County apply university research, knowledge, and resources to meet their educational needs wherever they live and work."

The key informant interviews were conducted by Aurora Health Care, HSHS St. Nicholas Hospital, Lakeshore Community Health Center, United Way of Sheboygan County and the University of Wisconsin Extension-Sheboygan County in partnership with Sheboygan County Division of Public Health. The interviewers used a standard interview script that included the following elements:

- 1) Ranking of up to five public health issues, based on the focus areas presented in Wisconsin's State Health Plan, that are the most important issues for the County; and
- 2) For those five public health issues:
  - a. Existing strategies to address the issue
  - b. Barriers/challenges to addressing the issue
  - c. Additional strategies needed
  - d. Key groups in the community that hospitals should partner with to improve community health

The report summarized the health issue rankings, including a list of the five issues which were ranked most frequently by respondents. Also, the report describes the themes that presented across the top ranked health topics along with a summary of the strategies, barriers and partners described by the participants.

#### **Top five issues that emerged as key health priorities for Sheboygan County and the identified community assets**

The top five health issues that emerged as key priorities for Sheboygan County were: 1) mental health, 2) alcohol and other drug use, 3) nutrition, 4) chronic diseases and 5) access to health services.

Key community partners, resources and assets to address health issues:

1. **Mental health:** Hospitals should be partnering with health systems and health care providers, mental health providers, law enforcement, courts, the Aging and Disability Resource Center, churches and faith communities, Sheboygan County Health and Human Services, civic organizations, schools, Mental Health America in Sheboygan County, United Way of Sheboygan County, Family Resource Center of Sheboygan County, YMCA, community businesses, child care providers, teen groups, veterans and senior centers.
2. **Alcohol and other drug use:** Hospitals should be partnering with treatment providers, health systems, health care providers, pharmacists, schools, law enforcement, the VA medical system, non-profit organizations, producers of media, county Health and Human Services, Mental Health American in Sheboygan County, employers, bars and restaurants, YMCA, legislators, transportation companies, liquor stores, the Division of Public Health and recovery support groups.

3. **Nutrition:** Hospitals should be partnering with United Way of Sheboygan County, food banks and food pantries, schools, health systems and health care providers, Health and Human Services, local restaurants and grocers, culinary schools, local farmers, employers, farmers' markets coordinators, nutritionists, legislators, the Division of Public Health, UW-Extension, Family Resource Center of Sheboygan County, parents, Healthy Sheboygan County 2020 and Meals on Wheels.
4. **Chronic diseases:** Hospitals should be partnering with health systems and health care providers, the Aging and Disability Resource Center, Lakeshore Community Health Care, Generations, employers, churches and faith communities, military and veterans' service organizations, law enforcement, school districts, teen groups, senior centers, retirement communities, legislators and chambers of commerce.
5. **Access to health services:** Hospitals should be partnering with Health systems and health care providers, specialty care providers, transportation companies, employers, Sheboygan County Health and Human Services, the Division of Public Health, school districts, informal leaders within the community, local government and legislators, insurance companies, representatives from churches and faith communities, and United Way of Sheboygan County.

**Partners & Contracts:** This report was sponsored by Aurora Health Care, HSHS St. Nicholas Hospital, Lakeshore Community Health Center, United Way of Sheboygan County and the University of Wisconsin Extension-Sheboygan County in partnership with Sheboygan County Division of Public Health. The report was prepared by the Center for Urban Population Health.



### Sheboygan County Community Health Survey Summary

This research provides valuable behavioral data, lifestyle habits, and the prevalence of risk factors and disease conditions of Sheboygan County residents. This summary was prepared by JKV Research for Aurora Health Care, Children's Hospital of Wisconsin, HSHS St. Nicholas Hospital, Lakeshore Community Health Clinic, Sheboygan County Health and Human Services-Division of Public Health, United Way of Sheboygan County, and the University of Wisconsin Extension-Sheboygan County. Additional data is available at <https://ahc.aurorahealthcare.org/aboutus/community-benefits>, [www.chw.org](http://www.chw.org) and [www.sheboygancounty.com/government/departments-f-q/health-and-human-services/public-health/health-promotion](http://www.sheboygancounty.com/government/departments-f-q/health-and-human-services/public-health/health-promotion).

Overall Health						Health Conditions in Past 3 Years					
Sheboygan County	2005	2008	2011	2014	2017	Sheboygan County	2005	2008	2011	2014	2017
Excellent	17%	24%	17%	15%	15%	High Blood Pressure	25%	23%	24%	28%	29%
Very Good	38%	34%	34%	38%	35%	High Blood Cholesterol	19%	22%	25%	27%	26%
Fair or Poor	15%	15%	18%	18%	17%	Mental Health Condition		15%	14%	20%	19%
<i>Other Research: (2015)</i>						Diabetes	7%	8%	8%	12%	13%
<i>Fair or Poor</i>						Heart Disease/Condition	9%	7%	8%	12%	11%
						Asthma (Current)	6%	7%	7%	9%	13%
Health Care Coverage						Condition Controlled Through Meds, Therapy or Lifestyle Changes					
Sheboygan County	2005	2008	2011	2014	2017	Sheboygan County	2005	2008	2011	2014	2017
Not Covered						High Blood Pressure				94%	91%
Personally (currently)	7%	8%	6%	6%	4%	High Blood Cholesterol				83%	84%
Personally (past 12 months)		15%	10%	14%	8%	Mental Health Condition				84%	93%
Household Member (past 12 months)	17%	17%	11%	16%	9%	Diabetes				100%	98%
<i>Other Research: (2015)</i>						Heart Disease/Condition				90%	93%
<i>Personally Not Covered (currently)</i>						Asthma (Current)				97%	76%
Did Not Receive Care Needed in Past 12 Months						Routine Procedures					
Sheboygan County	2008	2011	2014	2017		Sheboygan County	2005	2008	2011	2014	2017
Delayed/Did Not Seek Care Due to Cost				16%		Routine Checkup (2 yrs. ago or less)	83%	78%	77%	80%	87%
Prescript. Meds Not Taken Due to Cost (Household)		12%	14%	9%		Cholesterol Test (4 years ago or less)	75%	74%	71%	76%	83%
Unmet Care in Past 12 Months						Dental Checkup (past year)	68%	70%	62%	66%	68%
Medical Care	9%	8%	15%	12%		Eye Exam (past year)	42%	42%	42%	53%	45%
Dental Care	7%	--	16%	17%		<i>Other Research:</i>					
Mental Health Care				4%		<i>Routine Checkup (≤2 years; 2015)</i>					
						<i>Cholesterol Test (≤5 years; 2014)</i>					
Health Information and Services						<i>Dental Checkup (past year; 2014)</i>					
Sheboygan County	2005	2008	2011	2014	2017						
Primary Source of Health Information						Physical Health and Nutrition					
Doctor					51%	Sheboygan County	2005	2008	2011	2014	2017
Internet					22%	Physical Activity/Week					
Have a Primary Care Physician					87%	Moderate Activity (5 times/30 min)	33%	32%	42%	43%	40%
Primary Health Services						Vigorous Activity (3 times/20 min)	24%	21%	29%	38%	
Doctor/nurse practitioner's office	84%	78%	72%	70%	58%	Recommended Moderate or Vigorous	44%	51%	53%	50%	
Urgent care center	2%	6%	7%	9%	5%	Overweight Status					
Public health clinic/com. health center	7%	8%	8%	10%	6%	Overweight (BMI 25.0+)	65%	70%	61%	67%	62%
Hospital emergency room	2%	2%	2%	3%	3%	Obese (BMI 30.0+)	21%	36%	28%	35%	32%
Quickcare clinic/Fastcare clinic	--	--	--	--	11%	Fruit Intake (2+ servings/day)	66%	64%	61%	59%	55%
Worksite clinic	--	--	--	--	6%	Vegetable Intake (3+ servings/day)	21%	23%	23%	24%	24%
No usual place	3%	3%	9%	6%	8%	At Least 5 Fruit/Vegetables/Day	37%	32%	30%	33%	35%
Advance Care Plan	40%	41%	38%	42%	42%	Household Went Hungry in Past Year					6%
Caregiver to Family Member or Friend						<i>Other Research (2015):</i>					
Past Month					29%	<i>Overweight (BMI 25.0+)</i>					
Next Two Years					37%	<i>Obese (BMI 30.0+)</i>					
Vaccinations (65 and Older)						Colorectal Cancer Screenings (50 and Older)					
Sheboygan County	2005	2008	2011	2014	2017	Sheboygan County	2005	2008	2011	2014	2017
Flu Vaccination (past year)	45%	58%	57%	68%	76%	Blood Stool Test (within past year)	21%	--	--	10%	13%
Pneumonia (ever)	73%	73%	69%	74%	75%	Sigmoidoscopy (within past 5 years)		9%	5%	8%	5%
<i>Other Research: (2015)</i>						Colonoscopy (within past 10 years)		59%	64%	69%	76%
<i>Flu Vaccination (past year)</i>						Screening in Recommended Time Frame		60%	65%	72%	80%



<b>Women's Health</b>						<b>Alcohol Use in Past Month</b>					
Sheboygan County	2005	2008	2011	2014	2017	Sheboygan County	2005	2008	2011	2014	2017
Mammogram (50+; within past 2 years)	71%	81%	84%	74%	72%	Binge Drinker	24%	24%	21%	25%	28%
Bone Density Scan (65 and older)	53%	66%	66%	84%	77%	Driver/Passenger When Driver					
Cervical Cancer Screening						Perhaps Had Too Much to Drink	3%	3%	3%	3%	4%
Pap Smear (18 – 65; within past 3 years)	87%	91%	78%	82%	82%						
HPV Test (18 – 65; within past 5 years)				44%	58%	Other Research: (2015)				WI	U.S.
Screening in Recommended Time Frame						Binge Drinker				23%	16%
(18-29: Pap every 3 years; 30 to 65: Pap and HPV every 5 years or Pap only every 3 years)				84%	86%						
Other Research (2015)				WI	U.S.	<b>Household Problems Associated With...</b>					
Mammogram (50 - 74; within past 2 years)				80%	78%	Sheboygan County	2005	2008	2011	2014	2017
Pap Smear (21- 65; within past 3 years)				87%	83%	Alcohol	4%	2%	3%	2%	4%
						Cocaine, Heroin or Other Street Drugs					2%
<b>Tobacco Cigarette Use</b>						Misuse of Prescription or OTC Drugs					1%
Sheboygan County	2005	2008	2011	2014	2017	Gambling					1%
Current Smokers (past 30 days)	22%	28%	27%	23%	21%	Marijuana					<1%
Of Current Smokers...											
Quit Smoking 1 Day or More in Past Year Because Trying to Quit	37%	56%	51%	46%	63%	<b>Times of Distress in Past Three Years</b>					
Saw a Health Care Professional in Past Year and Advised to Quit Smoking	75%	82%	69%	90%	77%	Sheboygan County					2017
Other Research:				WI	U.S.	Time of Distress and Someone in HH Looked for Community Support					26%
Current Smokers (2015)				17%	18%	Of Respondents Who Looked for Support					
Tried to Quit (2005)				49%	56%	Felt Somewhat/Slightly or Not At All Supported					49%
<b>Exposure to Smoke</b>						<b>Mental Health Status</b>					
Sheboygan County	2008	2011	2014	2017		Sheboygan County	2005	2008	2011	2014	2017
Smoking Policy at Home						Felt Sad, Blue or Depressed					
Not allowed anywhere	73%	76%	79%	87%		Always/Nearly Always (past 30 days)	5%	5%	7%	9%	8%
Allowed in some places/at some times	10%	8%	7%	5%		Find Meaning & Purpose in Daily Life					
Allowed anywhere	5%	2%	3%	2%		Seldom/Never	4%	3%	7%	7%	3%
No rules inside home	13%	15%	11%	7%		Considered Suicide (past year)	3%	4%	7%	10%	5%
Nonsmokers Exposed to Second-Hand Smoke In Past Seven Days	25%	16%	13%	11%							
Other Research: (WI: 2005; US: 2006-08)				WI	U.S.	<b>Children in Household</b>					
Smoking Prohibited at Home				75%	79%	Sheboygan County					2017
						Personal Health Doctor/Nurse Who Knows Child Well and Familiar with History					91%
<b>Other Tobacco Products in Past Month</b>						Visited Personal Doctor/Nurse for Preventive Care (past 12 months)					94%
Sheboygan County	2014	2017				Did Not Receive Care Needed (past 12 months)					
Smokeless Tobacco	5%	9%				Medical Care					7%
Electronic Cigarettes	7%	2%				Dental Care					8%
Cigars, Cigarillos or Little Cigars	4%	1%				Specialist					<1%
						Current Asthma					7%
<b>Top County Health Issues</b>						Safe in Community/Neighborhood (seldom/never)					<1%
Sheboygan County	2017					Children 5 to 17 Years Old					
Illegal Drug Use	48%					Fruit Intake (2+ servings/day)					81%
Alcohol Use or Abuse	28%					Vegetable Intake (3+ servings/day)					17%
Overweight or Obesity	23%					5+ Fruit/Vegetables per Day					48%
Access to Health Care	20%					Physical Activity (60 min./5 or more days/week)					68%
Chronic Diseases	18%					Children 8 to 17 Years Old					
Cancer	13%					Unhappy, Sad or Depressed in Past 6 Months					
Mental Health or Depression	12%					Always/Nearly Always					3%
Prescription or OTC Drug Abuse	12%					Experienced Some Form of Bullying (past 12 months)					23%
Affordable Health Care	7%					Verbally Bullied					23%
Access to Affordable Healthy Food	5%					Physically Bullied					1%
Tobacco Use	4%					Cyber Bullied					1%
						<b>Personal Safety in Past Year</b>					
						Sheboygan County	2005	2008	2011	2014	2017
						Afraid for Their Safety	3%	5%	3%	9%	2%
						Pushed, Kicked, Slapped, or Hit	4%	3%	4%	4%	1%
						At Least One of the Safety Issues	6%	8%	6%	10%	3%



### Overall Health and Health Care Key Findings

In 2017, 50% of respondents reported their health as excellent or very good; 17% reported fair or poor. Respondents who were in the bottom 40 percent household income bracket, unmarried, inactive or smokers were more likely to report fair or poor health. *From 2005 to 2017, there was no statistical change in the overall percent of respondents who reported their health as fair or poor, as well as from 2014 to 2017.*

In 2017, 4% of respondents reported they were not currently covered by health care insurance; respondents who were male, with a high school education or less, in the bottom 40 percent household income bracket or unmarried were more likely to report this. Eight percent of respondents reported they personally did not have health care coverage at least part of the time in the past 12 months; respondents who were 18 to 34 years old, 45 to 54 years old, in the bottom 40 percent household income bracket or unmarried were more likely to report this. Nine percent of respondents reported someone in their household was not covered at least part of the time in the past 12 months; respondents who were in the bottom 40 percent household income bracket or unmarried were more likely to report this. *From 2005 to 2017, the overall percent statistically decreased for respondents 18 and older or 18 to 64 years old who reported no current personal health care coverage while from 2014 to 2017, there was no statistical change. From 2008 to 2017, the overall percent statistically decreased for respondents who reported no personal health care coverage at least part of the time in the past 12 months, as well as from 2014 to 2017. From 2005 to 2017, the overall percent statistically decreased for respondents who reported someone in the household was not covered at least part of the time in the past 12 months, as well as from 2014 to 2017.*

In 2017, 16% of respondents reported they delayed or did not seek medical care because of a high deductible, high co-pay or because they did not have coverage for the care in the past 12 months; respondents who were female, 35 to 44 years old or with some post high school education were more likely to report this. Nine percent of respondents reported that someone in their household had not taken their prescribed medication due to prescription costs in the past 12 months; respondents in the bottom 60 percent household income bracket were more likely to report this. Twelve percent of respondents reported there was a time in the past 12 months they did not receive the medical care needed; respondents who were female, 18 to 34 years old, with some post high school education, in the bottom 40 percent household income bracket or unmarried respondents were more likely to report this. Seventeen percent of respondents reported in the past 12 months they did not receive the dental care needed. Respondents 35 to 44 years old, with some post high school education, in the bottom 60 percent household income bracket or unmarried respondents were more likely to report they did not receive the dental care needed. Four percent of respondents reported in the past 12 months they did not receive the mental health care needed; respondents who were female or unmarried were more likely to report this. *From 2011 to 2017, the overall percent statistically remained the same for respondents who reported someone in their household had not taken their prescribed medication due to prescription costs while from 2014 to 2017, the overall percent statistically decreased. From 2008 to 2017, the overall percent statistically remained the same for respondents who reported unmet medical care, as well as from 2014 to 2017. From 2008 to 2017, the overall percent statistically increased for respondents who reported unmet dental care while from 2014 to 2017, the overall percent statistically remained the same.*

In 2017, 29% of respondents reported during the past 30 days they provided regular care or assistance to a friend or family member who has a health problem or disability in which they are not paid as a caregiver. Thirty-seven percent of respondents reported in the next two years they expect to be a caregiver. Respondents 35 to 44 years old or with some post high school education were more likely to report both scenarios.

In 2017, 51% of respondents reported they contact a doctor when they need health information or clarification while 22% reported they go to the Internet. Nine percent reported they talk to other health professionals followed by 6% who reported themselves or a family member was in the health care field. Four percent reported family/friends. Respondents 65 and older or with a college education were more likely to report they contact a doctor. Respondents 18 to 34 years old, with some post high school education or in the middle 20 percent household income bracket were more likely to report the Internet as their source for health information. Respondents who were male, 18 to 34 years old or in the bottom 40 percent household income bracket were more likely to report other health professional. Respondents 35 to 44 years old were more likely to report themselves or a family member was in the health care field and their source for health information/clarification. Respondents 35 to 44 years old or with a high school education or less were more likely to report family/friends. Eighty-seven percent of respondents reported they have a primary care physician they regularly see for check-ups and when they are sick; respondents who were female, 35 and older, with at least some post high school education or married were more likely to report a primary care physician. Fifty-eight percent of respondents reported their primary place for health services when they are sick was from a doctor's or nurse practitioner's office; respondents who were female, 65 and older, with a college education, in the middle 20 percent household income bracket or married were more likely to report this. Forty-two percent of respondents had an advance care plan; respondents who were 65 and older or married were more likely to report an advance care plan. *From 2005 to 2017, there was a statistical decrease in the overall percent of respondents reporting their primary place for health services when they are sick was a doctor's or nurse*



practitioner's office, as well as from 2014 to 2017. From 2005 to 2017, there was no statistical change in the overall percent of respondents having an advance care plan, as well as from 2014 to 2017.

In 2017, 87% of respondents reported a routine medical checkup two years ago or less while 83% reported a cholesterol test four years ago or less. Sixty-eight percent of respondents reported a visit to the dentist in the past year while 45% reported an eye exam. Respondents who were female, 55 and older, with a college education, in the top 40 percent household income bracket or married were more likely to report a routine checkup two years ago or less. Respondents 45 and older, with a college education or married respondents were more likely to report a cholesterol test four years ago or less. Respondents who were female, 45 to 54 years old, with a college education, in the top 40 percent household income bracket or married were more likely to report a dental checkup in the past year. Respondents who were female, 65 and older, with a college education or in the top 40 percent household income bracket were more likely to report an eye exam in the past year. *From 2005 to 2017, there was no statistical change in the overall percent of respondents reporting a routine checkup while from 2014 to 2017, there was a statistical increase. From 2005 to 2017, there was a statistical increase in the overall percent of respondents reporting a cholesterol test, as well as from 2014 to 2017. From 2005 to 2017, there was no statistical change in the overall percent of respondents reporting a dental checkup, as well as from 2014 to 2017. From 2005 to 2017, there was no statistical change in the overall percent of respondents reporting an eye exam while from 2014 to 2017, there was a statistical decrease.*

In 2017, 47% of respondents had a flu vaccination in the past year. Respondents who were female, 65 and older, with a college education, in the top 40 percent household income bracket or married were more likely to report a flu vaccination. Seventy-five percent of respondents 65 and older had a pneumonia vaccination in their lifetime. *Please note: in the 2004/2005 flu season, for a time there was a limited supply of flu vaccinations. During that period, it was only offered to persons in high-risk categories. From 2005 to 2017, there was a statistical increase in the overall percent of respondents 18 and older or 65 and older who reported a flu vaccination in the past 12 months while from 2014 to 2017, there was no statistical change. From 2005 to 2017, there was no statistical change in the overall percent of respondents 65 and older who had a pneumonia vaccination, as well as from 2014 to 2017.*

#### **Health Risk Factors Key Findings**

In 2017, out of six health conditions listed, the most often mentioned in the past three years was high blood pressure (29%). Respondents 65 and older, with a college education, who were overweight or inactive were more likely to report high blood pressure. Twenty-six percent of respondents reported high blood cholesterol; respondents 65 and older, with a college education or overweight respondents were more likely to report this. Nineteen percent reported a mental health condition. Respondents who were female, 35 to 44 years old, with some post high school education or less, in the bottom 40 percent household income bracket or unmarried were more likely to report a mental health condition in the past three years. Thirteen percent of respondents reported diabetes; respondents who were 65 and older, overweight or inactive were more likely to report this. Eleven percent reported they were treated for, or told they had heart disease in the past three years. Respondents who were 65 and older or overweight were more likely to report heart disease/condition. Thirteen percent reported current asthma; respondents with some post high school education, in the bottom 60 percent household income bracket or unmarried respondents were more likely to report this. *From 2005 to 2017, there was a statistical increase in the overall percent of respondents who reported high blood cholesterol, diabetes or current asthma while from 2014 to 2017, there was no statistical change. From 2005 to 2017, there was no statistical change in the overall percent of respondents who reported high blood pressure or heart disease/condition, as well as from 2014 to 2017. From 2008 to 2017, there was no statistical change in the overall percent of respondents who reported a mental health condition, as well as from 2014 to 2017.*

In 2017, 8% of respondents reported they always or nearly always felt sad, blue or depressed in the past 30 days; respondents who were female, 35 to 54 years old, with some post high school education or in the bottom 40 percent household income bracket were more likely to report this. Five percent of respondents felt so overwhelmed they considered suicide in the past year; respondents in the middle 20 percent household income bracket were more likely to report this. Three percent of respondents reported they seldom or never find meaning and purpose in daily life. *From 2005 to 2017, there was no statistical change in the overall percent of respondents who reported they always or nearly always felt sad, blue or depressed, as well as from 2014 to 2017. From 2005 to 2017, there was no statistical change in the overall percent of respondents who considered suicide or they seldom/never find meaning and purpose in daily life while from 2014 to 2017, there was a statistical decrease.*

#### **Behavioral Risk Factors Key Findings**

In 2017, 40% of respondents did moderate physical activity five times a week for 30 minutes. Thirty-eight percent of respondents did vigorous activity three times a week for 20 minutes. Combined, 50% met the recommended amount of physical activity; respondents who were male, 18 to 34 years old or not overweight were more likely to report this. *From 2005 to 2017, there was no statistical change in the overall percent of respondents who reported moderate physical activity five times a week for at least*



30 minutes, as well as from 2014 to 2017. From 2008 to 2017, there was a statistical increase in the overall percent of respondents who reported vigorous physical activity three times a week for at least 20 minutes, as well as from 2014 to 2017. From 2008 to 2017, there was no statistical change in the overall percent of respondents who met the recommended amount of physical activity, as well as from 2014 to 2017.

In 2017, 62% of respondents were classified as at least overweight while 32% were obese. Respondents who were 35 and older, in the middle 20 percent household income bracket, married or who did not meet the recommended amount of physical activity were more likely to be classified as at least overweight. Respondents who were 35 to 44 years old or inactive were more likely to be classified as obese. From 2005 to 2017, there was no statistical change in the overall percent of respondents being at least overweight, as well as from 2014 to 2017. From 2005 to 2017, there was a statistical increase in the overall percent of respondents being obese while from 2014 to 2017, there was no statistical change.

In 2017, 55% of respondents reported two or more servings of fruit while 24% reported three or more servings of vegetables on an average day. Respondents who were female, with some post high school education, in the top 60 percent household income bracket or who were overweight were more likely to report at least two servings of fruit. Respondents who were female, 18 to 44 years old, with a college education, in the top 60 percent household income bracket or who met the recommended amount of physical activity were more likely to report at least three servings of vegetables on an average day. Thirty-five percent of respondents reported five or more servings of fruit/vegetables on an average day; respondents who were female, with a college education or in the middle 20 percent household income bracket were more likely to report this. Six percent of respondents reported their household went hungry because they couldn't afford enough food in the past 12 months; respondents who were in the bottom 40 percent household income bracket, unmarried or in households with children were more likely to report this. From 2005 to 2017, there was a statistical decrease in the overall percent of respondents who reported at least two servings of fruit while from 2014 to 2017, there was no statistical change. From 2005 to 2017, there was no statistical change in the overall percent of respondents who reported at least three servings of vegetables on an average day or at least five servings of fruit/vegetables on an average day, as well as from 2014 to 2017.

In 2017, 72% of female respondents 50 and older reported a mammogram within the past two years. Seventy-seven percent of female respondents 65 and older had a bone density scan. Eighty-two percent of female respondents 18 to 65 years old reported a pap smear within the past three years. Fifty-eight percent of respondents 18 to 65 years old reported an HPV test within the past five years. Eighty-six percent of respondents reported they received a cervical cancer test in the time frame recommended (18 to 29 years old: pap smear within past three years; 30 to 65 years old: pap smear and HPV test within past five years or pap smear only within past three years). Respondents with a college education or in the top 40 percent household income bracket were more likely to meet the cervical cancer recommendation. From 2005 to 2017, there was no statistical change in the overall percent of respondents 50 and older who reported having a mammogram, as well as from 2014 to 2017. From 2005 to 2017, there was a statistical increase in the overall percent of respondents 65 and older who reported a bone density scan while from 2014 to 2017, there was no statistical change. From 2005 to 2017, there was no statistical change in the overall percent of respondents 18 to 65 years old who reported having a pap smear within the past three years, as well as from 2014 to 2017. From 2014 to 2017, there was a statistical increase in the overall percent of respondents 18 to 65 years old who reported an HPV test within the past five years. From 2014 to 2017, there was no statistical change in the overall percent of respondents 18 to 65 years old who met the cervical cancer screening recommendation.

In 2017, 13% of respondents 50 and older reported a blood stool test within the past year. Five percent of respondents 50 and older reported a sigmoidoscopy within the past five years while 76% reported a colonoscopy within the past ten years. This results in 80% of respondents meeting the current colorectal cancer screening recommendations. From 2005 to 2017, there was a statistical decrease in the overall percent of respondents who reported a blood stool test within the past year while from 2014 to 2017, there was no statistical change. From 2008 to 2017, there was no statistical change in the overall percent of respondents who reported a sigmoidoscopy within the past five years, as well as from 2014 to 2017. From 2008 to 2017, there was a statistical increase in the overall percent of respondents who reported a colonoscopy within the past ten years while from 2014 to 2017, there was no statistical change. From 2008 to 2017, there was a statistical increase in the overall percent of respondents who reported at least one of these tests in the recommended time frame while from 2014 to 2017, there was no statistical change.

In 2017, 21% of respondents were current tobacco cigarette smokers; respondents 45 to 54 years old, with a high school education or less, in the bottom 40 percent household income bracket or unmarried respondents were more likely to be a smoker. In the past 12 months, 63% of current smokers quit smoking for one day or longer because they were trying to quit. Seventy-seven percent of current smokers who saw a health professional in the past year reported the professional advised them to quit smoking. From 2005 to 2017, there was no statistical change in the overall percent of respondents who were current tobacco cigarette smokers, as well as from 2014 to 2017. From 2005 to 2017, there was a statistical increase in the overall percent of current tobacco cigarette



*smokers who quit smoking for at least one day because they were trying to quit, as well as from 2014 to 2017. From 2005 to 2017, there was no statistical change in the overall percent of current smokers who reported a health professional advised them to quit smoking while from 2014 to 2017, there was a statistical decrease.*

In 2017, 87% of respondents reported smoking is not allowed anywhere inside the home. Respondents who were in the top 40 percent household income bracket, married, nonsmokers or in households with children were more likely to report smoking is not allowed anywhere inside the home. Eleven percent of nonsmoking respondents reported they were exposed to second-hand smoke in the past seven days; respondents 35 to 54 years old or in the bottom 40 percent household income bracket were more likely to report this. *From 2008 to 2017, there was a statistical increase in the overall percent of respondents who reported smoking is not allowed anywhere inside the home, as well as from 2014 to 2017. From 2008 to 2017, there was a statistical decrease in the overall percent of nonsmoking respondents who reported they were exposed to second-hand smoke in the past seven days while from 2014 to 2017, there was no statistical change.*

In 2017, 9% of respondents used smokeless tobacco in the past month; respondents who were male, 18 to 34 years old or unmarried were more likely to report this. Two percent of respondents used electronic cigarettes in the past month while 1% of respondents used cigars, cigarillos or little cigars. *From 2014 to 2017, there was a statistical increase in the overall percent of respondents who reported in the past month they used smokeless tobacco. From 2014 to 2017, there was a statistical decrease in the overall percent of respondents who reported in the past month they used electronic cigarettes or cigars/cigarillos/little cigars.*

In 2017, 28% of respondents were binge drinkers in the past month; respondents who were male, 18 to 34 years old or in the top 40 percent household income bracket were more likely to report this. Four percent of respondents reported they had been a driver or a passenger when the driver perhaps had too much to drink in the past month; respondents with some post high school education were more likely to report this. *From 2005 to 2017, there was no statistical change in the overall percent of respondents who reported binge drinking in the past month, as well as from 2014 to 2017. From 2005 to 2017, there was no statistical change in the overall percent of respondents who reported they were a driver or passenger in a vehicle when the driver perhaps had too much to drink in the past month, as well as from 2014 to 2017.*

In 2017, 4% of respondents reported someone in their household experienced a problem, such as legal, social, personal or physical in connection with drinking alcohol in the past year; respondents in the middle 20 percent household income bracket were more likely to report this. Two percent of respondents reported someone in their household experienced a problem with cocaine, heroin or other street drugs. One percent of respondents each reported a household problem in connection with the misuse of prescription drugs/over-the-counter drugs or gambling. Less than one percent of respondents reported someone in their household experienced a problem with marijuana. *From 2005 to 2017, there was no statistical change in the overall percent of respondents reporting a household problem in connection with drinking alcohol, as well as from 2014 to 2017.*

In 2017, 26% of respondents reported someone in their household experienced times of distress in the past three years and looked for community support; respondents who were in the bottom 40 percent household income bracket or unmarried were more likely to report this. Forty-nine percent of respondents who looked for community resource support reported they felt somewhat, slightly or not at all supported.

In 2017, 2% of respondents reported someone made them afraid for their personal safety in the past year. One percent of respondents reported they had been pushed, kicked, slapped or hit in the past year. A total of 3% reported at least one of these two situations. *From 2005 to 2017, there was no statistical change in the overall percent of respondents reporting they were afraid for their personal safety while from 2014 to 2017, there was a statistical decrease. From 2005 to 2017, there was a statistical decrease in the overall percent of respondents reporting they were pushed, kicked, slapped or hit, as well as from 2014 to 2017. From 2005 to 2017, there was a statistical decrease in the overall percent of respondents reporting at least one of the two personal safety issues, as well as from 2014 to 2017.*

### **Children in Household Key Findings**

In 2017, a random child was selected for the respondent to talk about the child's health and behavior. Ninety-one percent of respondents reported they had one or more persons they think of as their child's personal doctor or nurse, with 94% reporting their child visited their personal doctor or nurse for preventive care during the past 12 months. Eight percent of respondents reported there was a time in the past 12 months their child did not receive the dental care needed while 7% reported their child did not receive the medical care needed. Less than one percent reported their child was not able to visit a specialist they needed to see. Seven percent of respondents reported their child currently had asthma. Less than one percent of respondents reported their child was seldom or never safe in their community. Eighty-one percent of respondents reported their 5 to 17 year old child ate at least two servings of fruit on an average day while 17% reported three or more servings of vegetables. This results in 48% of



respondents reporting their 5 to 17 year old child ate at least five servings of fruits or vegetables. Sixty-eight percent of respondents reported their 5 to 17 year old child was physically active five times a week for 60 minutes. Three percent of respondents reported their 8 to 17 year old child always or nearly always felt unhappy, sad or depressed in the past six months. Twenty-three percent reported their 8 to 17 year old child experienced some form of bullying in the past year; 23% reported verbal bullying, 1% each reported physical bullying or cyber bullying.

#### **County Health Issues Key Findings**

In 2017, respondents were asked to provide the top three health issues in the county. The most often cited was illegal drug use (48%). Respondents 18 to 34 years old were more likely to report illegal drug use as a top issue. Twenty-eight percent of respondents reported alcohol use or abuse as a top county health issue; respondents who were male, 18 to 34 years old or unmarried were more likely to report this. Twenty-three percent reported overweight or obesity as a top county health issue. Respondents 18 to 34 years old, with at least some post high school education, in the top 40 percent household income bracket or married respondents were more likely to report overweight or obesity as a top issue. Twenty percent of respondents reported access to health care (medical, dental or mental); respondents who were female, 35 to 54 years old, with a college education or in the top 40 percent household income bracket were more likely to report this. Eighteen percent of respondents reported chronic diseases as a top health issue; respondents with a college education or in the top 40 percent household income bracket were more likely to report this. Thirteen percent of respondents reported cancer. Respondents 35 to 44 years old were more likely to report cancer as a top issue. Twelve percent of respondents reported mental health or depression as a top health issue; respondents with some post high school education or married respondents were more likely to report this. Twelve percent of respondents reported prescription or over-the-counter drug abuse as a top county health issue; respondents 45 to 54 years old or with some post high school education were more likely to report this. Seven percent of respondents reported affordable health care; respondents 35 to 44 years old or with a college education were more likely to report this. Five percent of respondents reported access to affordable healthy food as a top health issue; respondents 45 to 54 years old, with a high school education or less or with a college education were more likely to report this. Four percent of respondents reported tobacco use as a top issue; respondents who were male, with some post high school education or in the bottom 40 percent household income bracket were more likely to report this.

## Appendix E | Hanlon Method for Prioritizing Health Problems

In order to prioritize health issues, we recommend use of the Hanlon Method. Developed by J.J. Hanlon, the *Hanlon Method for Prioritizing Health Problems* is a well-respected technique which quantitatively and objectively ranks specific health problems based on the criteria of seriousness, magnitude, and effectiveness. Below is a description of this method. *Scales have been customized for Aurora's CHNA purposes.*

**Step #1:** Give each health problem a numerical rating on a scale of 0-10 for each of the three criteria shown in the columns.

Rating	Size of Health Problem (% of population) A	Seriousness of Health Problem B	Effectiveness of Interventions C
9 or 10	>50%	Very Serious	46% - 100% effective
7 or 8	40% - 49.9%	Relatively Serious	36% - 45% effective
5 or 6	30% - 39.9%	Serious	26% - 35% effective
3 or 4	20% - 29.9%	Moderately Serious	16% - 25% effective
1 or 2	10% - 19%	Relatively Not Serious	5% - 15% effective
0	<10%	Not Serious	<5% effective
Guiding considerations when ranking health issues against the three criteria	Size of the health problem should be based on data collected from the individual community	Does it require immediate attention? Is there public demand? What is the economic impact? What is the impact on quality of life? Is there a high hospitalization rate? Does it affect other health issues?	Determine upper and lower measures for effectiveness and rate health issues relative to those limits.

**Step #2:** Apply the 'PEARL' Test – Once health problems have been rated for all criteria, use the 'PEARL' Test to screen out health problems based on the following feasibility factors:

**Propriety** – Is a program for the health problem suitable?

**Economics** – Does it make economic sense to address the problem? Are there economic consequences if a problem is not carried out?

**Acceptability** – Will a community accept the program? Is it wanted?

**Resources** – Is funding available or potentially available for a program?

**Legality** – Do current laws allow program activities to be implemented?

**Step #3:** Calculate priority scores – Based on the three criteria rankings assigned to each health problem in Step 1 of the Hanlon Method, calculate the priority scores using the following formula:

$$D = [A + (2 \times B)] \times C$$

Where: D = Priority Score

A = Size of health problem ranking

B = Seriousness of health problem ranking


C = Effectiveness of intervention ranking



**Step #4:** Rank the health problems– Based on the priority scores calculated in Step 3 of the Hanlon Method, assign ranks to the health problems with the highest priority score receiving a rank of ‘1,’ the next high priority score receiving a rank of ‘2,’ and so on.

<b>Aurora Medical Center Kenosha Hanlon Rankings of Health Problems</b>					
<b>Ranking</b>	<b>Health Issue Based on CHNA Data</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
1	Delayed/did not seek care due to cost	3	10	9	207
2	Prescription meds not taken due to cost (household)	2	10	9	198
3	Mental health condition	2	9	9	180
4	Did not get recommended moderate/vigorous activity	9	5	4	176
	Overweight	9	8	4	
5	No flu vaccine in past year	4	5	10	140
6	Binge drinking	5	8	4	84
7	Smoking	3	9	4	84
8	High blood cholesterol	2	6	5	70
9	High blood pressure	4	6	4	64
<b>Ranking</b>	<b>Older Adults Subset</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
1	Did not meet current colorectal cancer screening recommendations (50 and older)	3	7	9	153
<b>Ranking</b>	<b>Women's Health Subset</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
1	No mammogram	9	6	9	189
2	No HPV test in past 5 years	9	5	9	171

### Focus | Access

	<p><b>Intended Impact</b></p> <ul style="list-style-type: none"> <li>• A demonstrable increase in “medical home” capacity and utilization by underserved populations across Aurora’s footprint (Medicaid-eligible and uninsured) in Sheboygan County</li> <li>• Target population is successfully transitioned to a “medical home”</li> <li>• Uninsured and Medicaid eligible patients will successfully transition to affordable health insurance plans</li> <li>• Reduction in hospital readmission rate for high-risk patients</li> <li>• Achieve Wisconsin average of 23 days for patients being admitted to hospice care</li> </ul>
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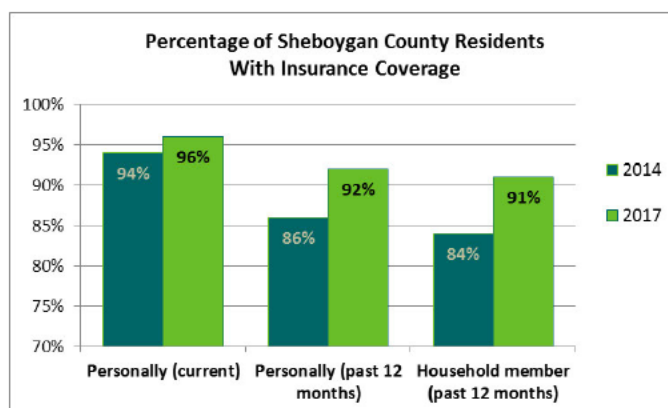
### Results

#### 2015


- 1.1% of seniors admitted to the Emergency Department returned within 72 hours
- Increased hospice care days from 17 days to 21.7 days
- 110 patients were followed by the palliative care team
- Provided \$5.7 million in medications free of cost
- Provided free laboratory services for about six Salvation Army Free Clinic patients per month
- Awarded Better Together Fund to increase access to our FQHC and therapy services for victims of domestic violence and sexual assault

#### 2016

- 1.2% of seniors admitted to the Emergency Department returned within 72 hours
- Increased hospice care days from 21.7 days to 48.0 days
- 631 patients were followed by the palliative care team
- 314 non-emergent ED visits without a primary care provider (PCP) saw an Aurora Health Care PCP within 28 days
- 40 individuals were provided with services and medical care by the Domestic Abuse Response Team
- 40 individuals were provided with services and medical care by the Sexual Abuse Response Team
- 19 children were provided services and medical care by Sexual Assault Nurse Examiner
- 23 victims of other abuse crimes were provided services and medical care by Sexual Assault Nurse Examiner
- Supported a local FQHC in the implementation of an electronic medical record system
- Expanded access for a new refugee population



## Focus | Behavioral Health including Mental Health and Substance Use

	<b>Intended Impact</b> <ul style="list-style-type: none"><li>• Improved access to appropriate levels of mental health services increased by our partial-inpatient and intensive outpatient behavioral health program and treatment options for those with heroin addiction</li><li>• Reduction in 30-day readmissions for inpatient mental health and stigma associated with a mental health diagnosis</li><li>• Successful placement of additional Behavioral Health Services providers, including those trained in addiction</li><li>• Successful opening of Behavioral Health Wellness Center by December 2017 or sooner</li></ul>
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## Results


### 2015

- Hired behavioral health staff to provide triage coverage in the Emergency Department
- 61 admissions to partial-inpatient or intensive outpatient behavioral health programs; 59 were assessed
- Participated in Healthy Sheboygan 2020 committees for anti-stigma, heroin and Screening, Brief Intervention, and Referral to Treatment (SBIRT)
- Opened an Intensive Outpatient Program (IOP)

### 2016

- Provided 123 hours weekly of behavioral health triage coverage in the Emergency Department
- 137 admissions to partial-inpatient and 75 intensive outpatient behavioral health programs; 134 were assessed in the emergency department
- 82 professionals were trained in trauma-informed techniques
- Two educational trainings were provided to 579 students
- Opened new behavioral health center providing 137 partial hospitalization admissions and 75 IOP admissions

## Focus | Health Literacy

	<b>Intended Impact</b> <ul style="list-style-type: none"><li>• Improved patient comprehension of health and financial wellbeing over time (Hmong, Hispanic and elderly populations specifically)</li></ul>
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## Results


### 2015

- Reviewed and updated all patient information and documents for readability and understandings
- Implemented *OK2ASK Campaign* in hospital to encourage patients to ask questions

### 2016

- Out-Patient Surgery Department piloted a project with the Clinic to ensure that patients are receiving consistent messaging regarding their procedures, pre-post care
- Provided 52 bystander CPR/AED trainings to 98 students and community residents
- Offered five Medic First Aid classes for community members

**Focus | Nutrition, Physical Activity, Overweight and High Blood Pressure and Cholesterol**

	<b>Intended Impact</b> <ul style="list-style-type: none"><li>• Children referred to KidShape 2.0 achieve a reduction in body mass index (BMI) and live healthier lifestyles with their families</li><li>• Through employer-based health risk assessment (HRA), employees will identify risk factors and will have resources to help reduce modifiable risks such as high blood pressure, high cholesterol and BMI</li><li>• Blood pressure, cholesterol and BMI will be reduced in employee populations and Return on Investment (ROI) will be shared with local employers</li></ul>
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**Results****2015**

- 16 families with 32 individuals participated in *KidShape 2.0*
- 2,441 internal employees and external employees from 29 local employers enrolled in the Wellness Center
- Provided facilities for *Stepping On* and *Living with Chronic Disease* classes in partnership with the Aging and Disability Resource Center

**2016**

- 81 community members received capillary cholesterol testing
- 11 community members received Chem16 panel blood draws

**Focus | Stroke**

	<b>Intended Impact</b> <ul style="list-style-type: none"><li>• Increased public knowledge of risk factors and warning signs for stroke, and the acronym F.A.S.T.</li><li>• Improved outcomes for EMS patients presenting with signs of stroke</li><li>• Hospital Stroke Center of Excellence accreditation is maintained</li></ul>
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**Results****2015**

- Distributed stroke education materials to all Sheboygan school students to share with their families
- 3 stroke awareness events were conducted for employees of 29 area businesses
- 30 individuals were screened for high blood pressure
- 750 people received stroke education materials

**2016**

- 2 health promotional events were held with 57 adults participating
- Conducted stroke screening event with two individuals identified at high-risk for stroke
- Provided stroke information materials in 500 customer grocery bags at a local grocery store
- 17 stroke patients presented via EMS and 15 stroke patients presented on their own

## Focus | Cancer

	<p><b>Intended Impact</b></p> <ul style="list-style-type: none"><li>• Improved access to resources for Individuals at high risk for breast cancer and not clear on their options</li><li>• Increased screenings for patients at high-risk for lung cancer</li><li>• Increased participation in Fecal Occult Blood Test (FOBT) testing</li><li>• Increased screening options for those who do not have access to screenings for monetary reasons</li></ul>
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## Results

### 2015

- 16 patients participated in high-risk breast clinic appointments
- 1,664 people reached through education and screening events
- 2,390 people supported and referred to our community partners for additional services such as complementary medicine

### 2016

- 16 cancer education activities were implemented
- 683 high-risk breast cancer patients were identified
- 88 high-risk lung cancer patients were identified