2021 Community Health Needs Assessment Report

Aurora BayCare Medical Center

2845 Greenbrier Road | Green Bay, WI 54311

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I. Executive Summary

Aurora BayCare Medical Center (Aurora BayCare) is an active member of the *Beyond Health Brown County* partnership to improve the health of the Brown County community. In addition to Aurora BayCare, *Beyond Health* membership includes the Brown County Health Department, the City of De Pere Health Department, Bellin Health System, Hospital Sisters Health Systems' St. Mary's and St. Vincent's Hospitals, N.E.W. Community Clinic, Oneida Nation, Wisconsin Department of Health Services and the Brown County United Way. *Beyond Health* seeks to improve the health of Brown County residents by conducting periodic community health needs assessments and facilitating efforts to create and implement plans around identified health concerns. In the summer of 2020, the *Beyond Health* partnership convened to review Brown County community health assessment data, with most of the data originating from the County Health Rankings and Wello Health Well-Being survey and community surveys.

Aurora BayCare's data collection process was comprised of four main components:

- Wello Health Well-Being survey- Brown County data from residents 18 or older
- Secondary Data – Advocate Aurora Health has a contract with Metopio to provide an internet-based data resource for their hospitals. This robust platform offers the hospitals health, demographic, and hospitalization indicators
- Community Survey – a summary of top health issues and additional strategies needed to address the issue from the perspective of community members and community stakeholders who represent the broad interests of the community served
- County Health Rankings: Brown County 2021 – a compilation of data using county-level measures from a variety of national and state data sources

In 2021, Aurora BayCare Medical Center (Aurora BayCare) utilized the above data and other data sources to identify and prioritize significant health needs and develop implementation strategies to address the prioritized health needs within the context of the hospital's existing programs, resources, strategic goals, and partnerships. 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 inequities linked with the health issue
- Health priorities identified in the municipal health department Community Health Improvement Plan (CHIP)
- Aligns with Advocate Aurora Health Community Strategy
- Quantifying health issues based on the *Hanlon Method for Prioritizing Health Problems*[1] (see Appendix E for details)

In addition, Aurora BayCare evaluated the impact of the initiatives identified in its *2018 Community Health Needs Assessment Report* / *2019-2021 Implementation Strategy* plan, which was executed with several successes, including supporting the Well Baby Project and providing linkages to Willow Creek Behavioral Health. For further description see Appendix F.

[1] 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 February 10, 2020.

As a result, Aurora BayCare prioritized the following significant health needs to address in our 2022-2024 implementation strategy:

- Access and coverage
- Behavioral health
- Social determinants of health: community safety, food security, and workforce development

The completed CHNA report was presented to the Aurora Health Care Community Board of the Advocate Aurora Health Board of Directors on who approved the report on December 14, 2021.

II. Description of Advocate Aurora Health and Aurora BayCare Medical Center

Advocate Aurora Health

Advocate Aurora Health is one of the 12 largest not-for-profit, integrated health systems in the United States and a leading employer in the Midwest with more than 75,000 employees, including more than 22,000 nurses and the region's largest employed medical staff and home health organization. A national leader in clinical innovation, health outcomes, consumer experience and value-based care, the system serves nearly 3 million patients annually in Illinois and Wisconsin across more than 500 sites of care. The organization contributed $2.5 billion in community benefits during 2020.

Aurora BayCare Medical Center

Aurora BayCare Medical Center in Green Bay, Wisconsin, is a full-service tertiary care hospital, part of a joint venture of Aurora Health Care and BayCare Clinic. A nationally recognized health care provider, we are committed to creating a better way to provide high-quality health care using the latest in medical technology and improving health care quality to help all people live well.

Aurora BayCare by the Numbers (2020)

- 167 hospital beds

More than

- 226,143 outpatient visits
- 8,686 inpatient admissions
- 25,485 emergency department visits
- 14,992 surgical procedures
- 1,604 births

Distinctions

- DNV-GL Hospital Accreditation
- American Academy of Sleep Medicine (AASM)
- American College of Radiology – Center of Excellence for Mammography (MQSA)
- American College of Radiology for Breast Ultrasound; General Ultrasound; Stereotactic Biopsy; Vascular Ultrasound; MRI; CT
- American Society for Metabolic and Bariatric Surgery – Accredited Comprehensive Center
- American Society for Reproductive Medicine – Aurora Fertility Services
- Society for Assisted Reproductive Technologies – Aurora Fertility Services
- American Institute of Ultrasound in Medicine (AIUM) – Maternal Fetal Medicine
- College of American Pathologists – Aurora Fertility Services
- College of American Pathologists (CAP)
- Commission on Cancer of American College of Surgeons
- National Accreditation Program for Breast Centers (NAPBC)
- American Heart Association Accreditation – Mission: Lifeline® Accreditation for Heart Attack Receiving Center
- UHMS Hyperbaric Medicine Accreditation with Distinction
- Intersocietal Commission (IAC) Echocardiography Accreditation
- American College of Radiology (ACR) Nuclear Medicine Accreditation
- Geriatric Emergency Department (GEDA) Level 3
- American College of Cardiology (ACC) Cardiac Cath Lab PCI Accreditation
- Get With the Guidelines™ for Heart Failure –
- Gold Plus 2016, 2017, 2018, 2020
- Get With the GuidelinesTM Target for Heart Failure-Honor Roll 2020
- Get With the Guidelines™ for Stroke Gold Plus Award / Honor Roll Elite Plus 2016, 2017, 2018, 2019, 2020, Honor Roll Elite 2021
- Get With the Guidelines™ for Atrial Fibrillation –Gold 2017, 2018, 2019
- American College of Cardiology Foundation's NCDR®
- ACTION Registry® --Platinum Performance Achievement

- Award, 2016, 2017
- American College of Cardiology Foundation's NCDR® Chest Pain-MI Registry Silver Performance Achievement Award, 2019
- American College of Cardiology Foundation's NCDR® Chest Pain-MI Registry Platinum Performance Achievement Award, 2020, 2021
- Mission: Lifeline ® Receiving Center—Gold Plus Level Award, 2016, 2017
- Mission: Lifeline NSTEMI Bronze Level Award, 2017
- Best Hospital in Northeast Wisconsin 2016-2017: U.S. News & World Report
- World's Best Hospital Ranking#139 2021: Newsweek
- Best Hospital in Wisconsin Ranking #6 2021: Newsweek
- Commission on Cancer Outstanding Achievement Award, 2017
- Optum Health Center of Excellence for Reproductive Resource Services – Aurora Fertility Services
- Truven Health 100 Top Hospitals, 2016
- University of Wisconsin Organ and Tissue Donation (UW OTD) Award of Hope (Silver) 2016; (Bronze) 2019
- University of Wisconsin Organ and Tissue Donation – Excellence in Tissue Donation, 2016, 2017, 2018, 2019, 2020
- HealthCare Chaplaincy Network: Excellence in Spiritual Care Award, 2018
- Get With The Guidelines TM for Resuscitation—Silver Award, 2018
- Becker's Healthcare 100 Great Community Hospital, 2018
- Greenhealth Partners for Change Award, 2019
- Healthgrades Women's Care Award, 2019
- Healthgrades Outstanding Patient Experience Award, 2020, 2021
- Care Continuum Center of Excellence by the GO2 Foundation for Lung Cancer (GO2 Foundation) 2021
- Blue Distinction Bariatric 2020
- Blue Distinction Maternity 2020
- Blue Distinction Hip & Knee 2020
- Blue Distinction Fertility 2018
- American Association of Cardiovascular and Pulmonary Rehabilitation Certification – Cardiac Pulmonary
- American Association of Cardiovascular and Pulmonary Rehabilitation Certification – Pulmonary
- American College of Surgeons Trauma Level II
- American Society of Radiation Oncology Certification
- DNV-GL Certified Comprehensive Stroke Center
- DNV-GL Certified Spine Surgery Program

To learn more about our hospital, please see https://www.aurorahealthcare.org/locations/hospital/aurora-baycare-medical-center.

III. 2021 Community Health Needs Assessment

Community Definition

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

With over 264,000 residents, Brown County is the 4th largest county in Wisconsin. Brown County has an excellent agriculture production area and agribusiness is of tremendous importance to the community, with dairying being the largest income generator. The largest employer in Brown County is the Oneida Tribe of Indians of Wisconsin: Business/Development Corp.[2]

The University of Wisconsin-Green Bay, St. Norbert College and Northeastern Wisconsin Technical College are the three major institutions that offer higher education opportunities within Brown County.

Green Bay, or "Titletown, U.S.A.," is the largest city in Brown County and is home to the Green Bay Packers. The principal industry of Green Bay is that of paper-making. Green Bay is the home base for one of the nation's most recognized environmental quality paper converters and recycling companies. Additionally, Green Bay is the home of an internationally recognized manufacturer of custom log homes.[3]

Brown County is composed of 13 townships, nine villages and two cities, of which Green Bay is the largest.[4]

•Cities: De Pere and Green Bay

•Villages: Allouez, Ashwaubenon, Bellevue, Denmark, Hobart, Howard, Pulaski, Suamico, Wrightstown

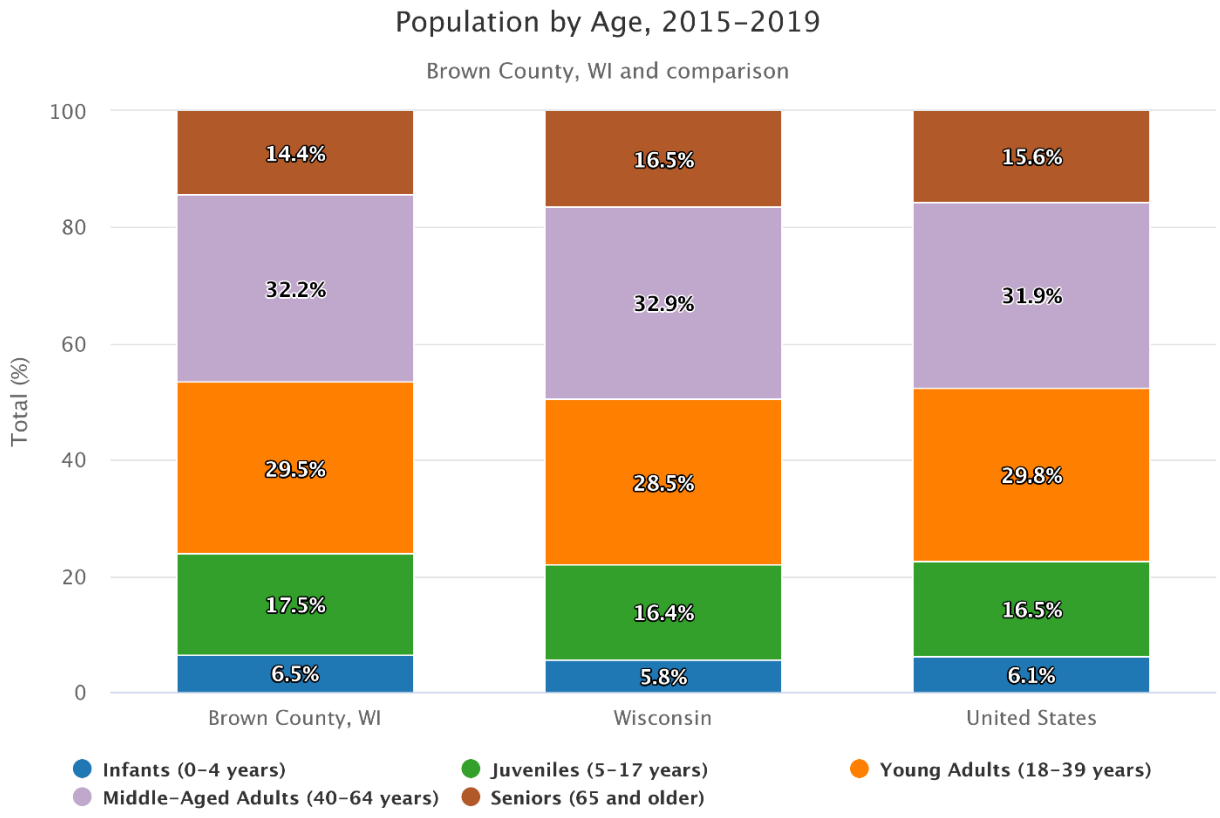
•Towns: Eaton, Glenmore, Green Bay, Holland, Humboldt, Lawrence, Ledgeview, Morrison, New Denmark, Pittsfield, Rockland, Scott, Wrightstown

[2] Brown County. Available at https://www.browncountywi.gov/government/about-brown-county/. Accessed May 26, 2021.
[3] Brown County. Available at https://www.browncountywi.gov/government/about-brown-county/. Accessed May 26, 2021.
[4] Brown County. Available at https://www.browncountywi.gov/community/municipalities/. Accessed May 26, 2021.

Community Demographics (Source #2)

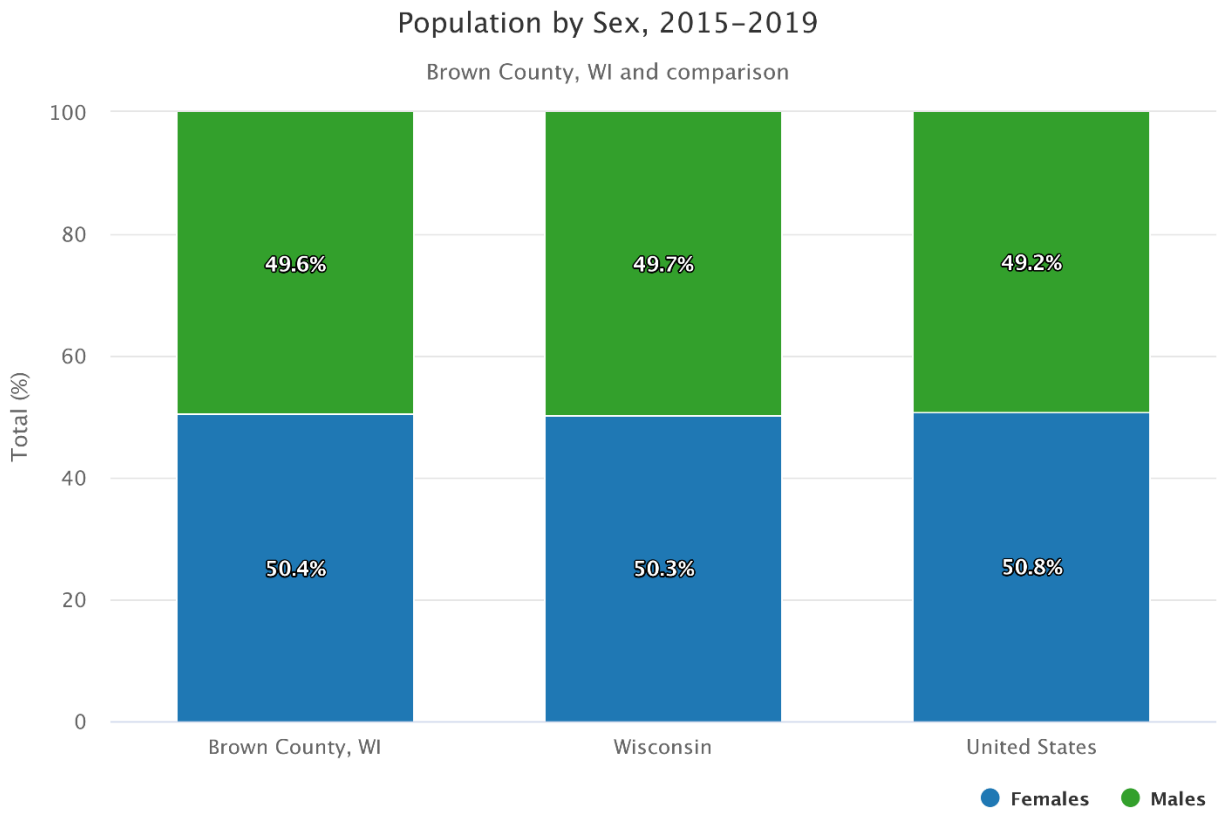
Age

Six point five percent of the Brown population is under 4 years old, 17.5 percent of the population is between the ages of 5 and 17, and 29.5 percent of the population is between the ages of 18 and 39. The largest age group in the county is the 40-64 year old age group with a population of 32.2 percent of the population. The fourth largest group is the senior population (65 years and older) at 14.4 percent. The chart below shows the Brown County population by age group, compared to Wisconsin and US averages.



Created on Metopio | https://metop.io/i/YPA8 | **Data source:** American Community Survey (ACS: Table B01001; Decennial Census: Table P012)
Population: Average population over the time period.

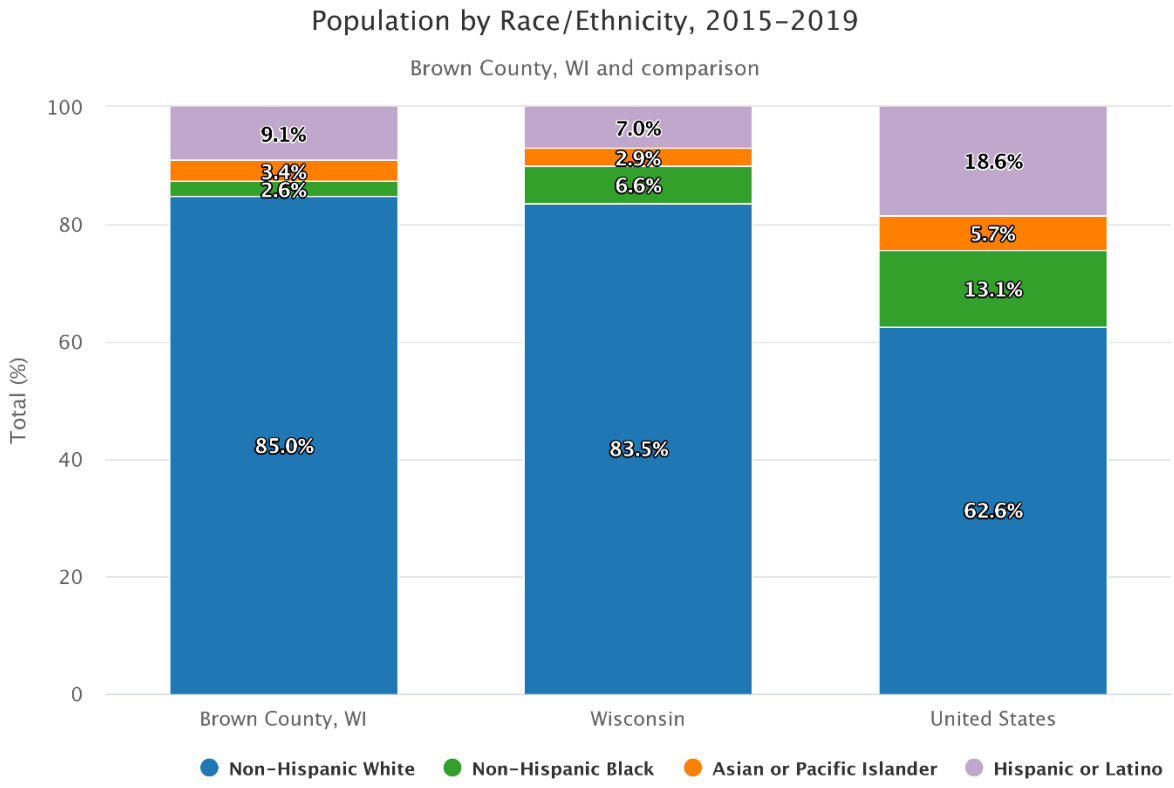
Gender



Created on Metopio | https://metop.io/i/YPA8 | **Data source:** American Community Survey (ACS: Table B01001; Decennial Census: Table P012)
Population: Average population over the time period.

Race and Ethnicity

Demographic data shows that Brown County is 85.0 percent White, the largest racial group, followed by the Hispanic or Latino population at 9.1 percent, the Asian or Pacific Islander population at 3.4 percent, and Non-Hispanic Black population at 2.6 percent. The table below shows the racial and ethnic composition of Brown County, compared to Wisconsin and US averages.

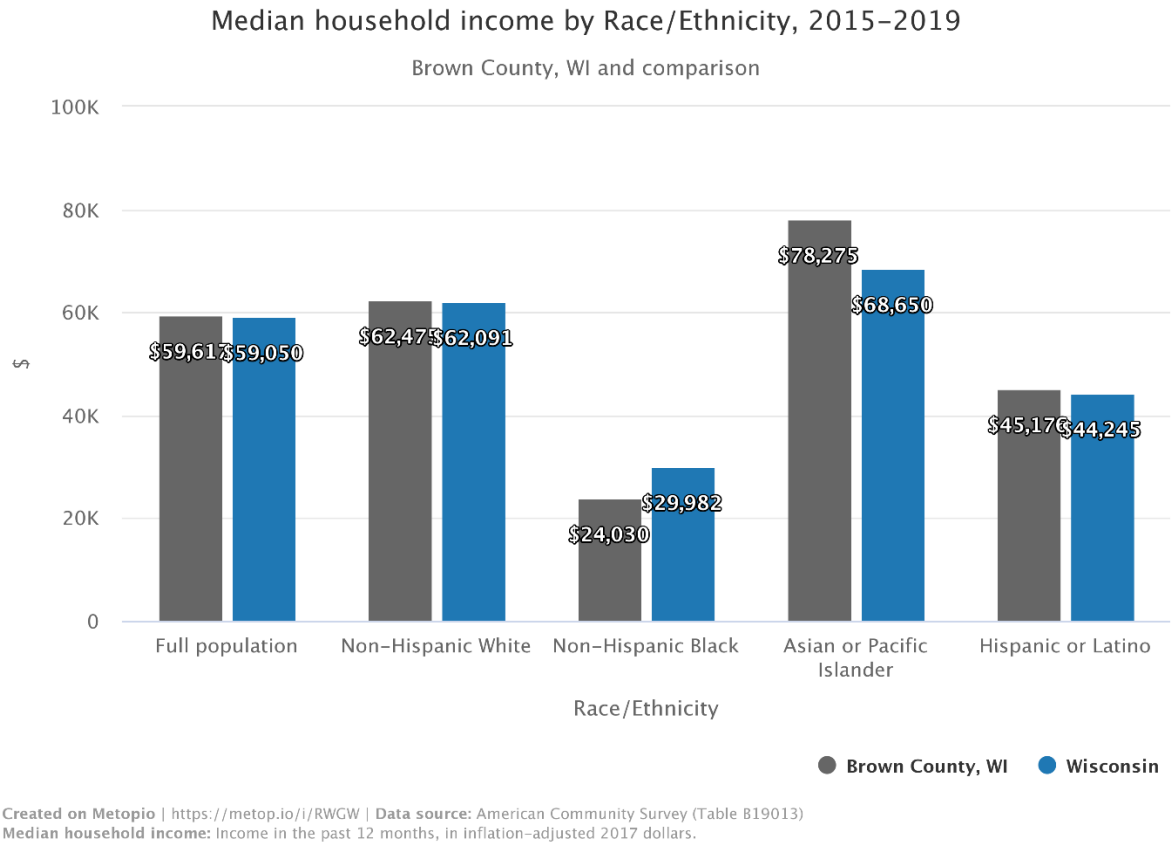


Created on Metopio | https://metop.io/i/YPA8 | **Data source:** American Community Survey (ACS: Table B01001; Decennial Census: Table P012)
Population: Average population over the time period.

Economics (Source #2)

Income

The median household income in Brown County is $59,617, which is slightly lower than the state's median household income of $59,050. There is a large racial disparity in the median household income with the Non-Hispanic White and Asian or Pacific Islander populations having the highest household incomes and the Non-Hispanic Black and Hispanic or Latino populations having the lowest median household incomes. The chart below shows the Brown County median household income by race/ethnicity compared to Wisconsin.



Created on Metopio | https://metop.io/i/RWGW | **Data source:** American Community Survey (Table B19013)
Median household income: Income in the past 12 months, in inflation-adjusted 2017 dollars.

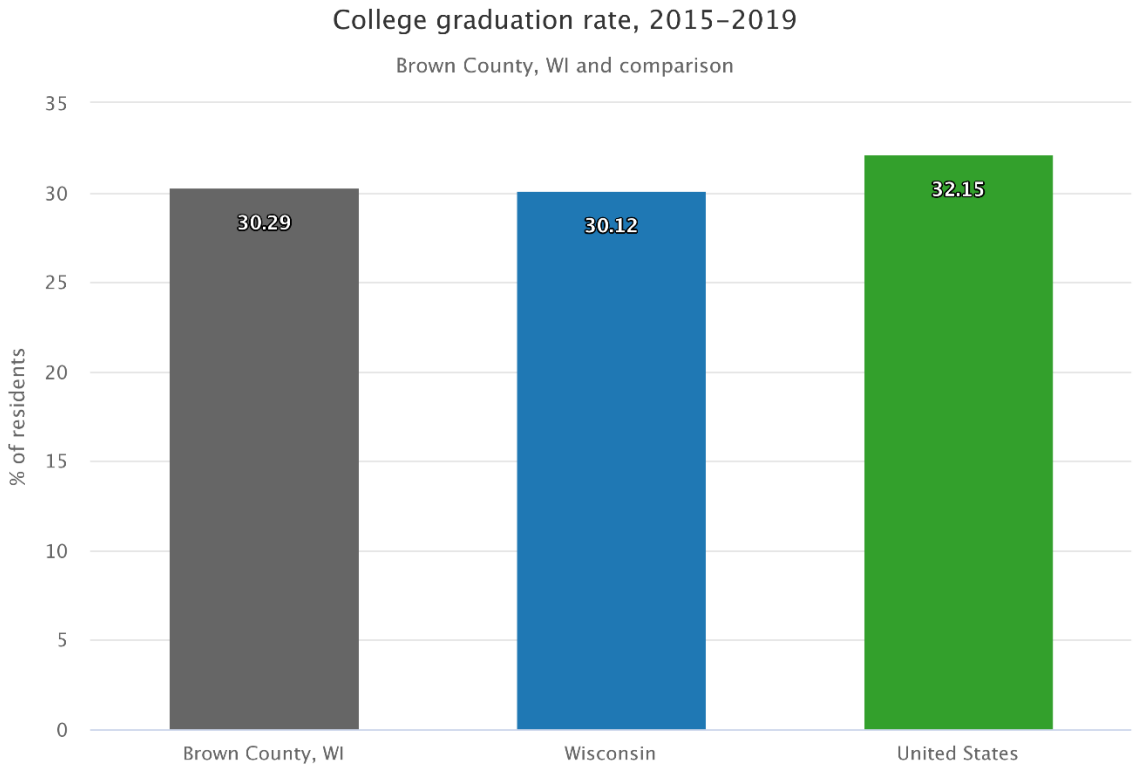
Employment

The unemployment rate among Brown County residents that are 16 years of age and older is three percent, which is lower compared to the state of Wisconsin at 3.61 percent.

Education (Source #2)

Educational Level

Brown County educational attainment data was also reviewed and analyzed to gain an in-depth understanding of educational levels across the county. Educational attainment is one of the social determinants of health. Higher levels of education correlate with better health outcomes. The percent of individuals in Brown County with a bachelor's degree or higher is similar to the Wisconsin average, and lower than the United States average. The chart below shows college graduation rates among individuals aged 25 and older residing in Brown County, compared to Wisconsin and US averages.



How the Community Health Needs Assessment 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 December 19, 2013. In 2021, a CHNA was conducted to 1) determine current community health needs in Brown 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 described in this report.

Partnership
Aurora BayCare Medical Center (Aurora BayCare) is an active member of the *Beyond Health Brown County* partnership to improve the health of the Brown County community. In addition to Aurora BayCare, *Beyond Health* membership includes the Brown County Health Department, the City of De Pere Health Department, Bellin Health System, Hospital Sisters Health Systems' St. Mary's and St. Vincent's Hospitals, N.E.W. Community Clinic, Oneida Nation, Wisconsin Department of Health Services and the Brown County United Way. *Beyond Health* seeks to improve the health of Brown County residents by conducting periodic community health needs assessments and facilitating efforts to create and implement plans around identified health concerns. In the summer of 2020, the *Beyond Health* partnership convened to review Brown County community health assessment data, with most of the data originating from the County Health Rankings and Wello Health Well-Being survey and community surveys.

Data collection and analysis
Quantitative data was collected through primary and secondary sources and was supplemented with qualitative data gathered through community surveying. Different data sources were collected, analyzed and published at different intervals, and therefore the data years (e.g., 2012, 2014, 2018) will vary in this report. The most current data available was used for the CHNA.

Data Sources

Source #1 | Wello Health Well-Being Survey
From July 13 through August 31, 2019, Wello, in partnership with the Consortium of Applied Research at the University of Wisconsin - Green Bay and the Strategic Research Institute at St. Norbert College, administered Brown County's first comprehensive survey of resident health and well-being.

Source #2 | Metopio
Advocate Aurora Health has a contract with Metopio to provide an internet-based data resource for their hospitals. This robust platform offers the hospitals health, demographic, and hospitalization indicators (Appendix B). Data for each indicator is presented by race, ethnicity, and gender when the data is available. For more information see Appendix B.

Source #3 | Community Survey
Seventy-two survey responses were collected in March 2021, considering input from community members as well as persons who represent the broad interests of the community served. The summary included top health issues and additional strategies needed to address the issue. The *Public Input Survey Summary* presents the results. For more information see Appendix C.

Source #4 | County Health Rankings: Brown County

The County Health Rankings measure the health of nearly all counties in the nation and rank them within states. The Rankings are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights. The Rankings are based on a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work and play. Building on the work of America's Health Rankings, the University of Wisconsin Population Health Institute has used this model to rank the health of Wisconsin's counties every year since 2003. For more information, see Appendix D.

Source #5 | 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 aurora.org/commbenefits. *Through August 2021, Aurora BayCare did not receive any comments on the current CHNA Report or Implementation Strategy.*

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

Summary of Findings

This report focuses on the following data collection years: 2018, 2019 and 2020. The Wello Health Well-Being Survey (Source #1), the secondary data (Source #2) and the Community Survey (Source #3), provide an overview of the community health issues in Brown County.

Access

Unmet medical care | In 2018, 73.8% of Brown County residents reported having been to a doctor for a routine checkup (e.g., a general physical exam, not an exam for a specific injury, illness, condition) in the previous year, similar to the Wisconsin average (Source #2).

- 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 important? 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.[5]

Dental services and unmet dental care | In 2018, 69% of Brown County adults reported having been to the dentist or dental clinic in the previous year, similar to the Wisconsin average (Source #2). Brown County has 64.8 dentists per 100,000 residents, a higher rate compared to the Wisconsin and US averages (Source #2).

- 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 important? 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.[6]

Unmet mental health services | Brown County has 292.3 mental health provider per 100,000 residents. This is higher compared to the Wisconsin rate of 272.2 per 100,000 residents, but lower compared to the US average of 381.9 per 100,000 residents (Source #2).

Why is this important? 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.[7]

[5] 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 March 31, 2021.
[6] 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 March 31, 2021.
[7] 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 March 31, 2021.

Coverage

Health care coverage | From 2015-2019, an average of 5% of Brown County residents reported they were without health insurance, which has been steadily decreasing since 2008-2012. Non-Hispanic Black residents aged 18-64 and Hispanic or Latino adults aged 18-64 were most likely to report being uninsured, at 18% and 29% respectively (Source #2).

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

Why is this important? 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.[8, 9]

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

Chronic conditions such as asthma, diabetes, heart disease and cancer can result in health complications, compromised quality of life and burgeoning health care costs. As the most common and preventable of all health issues, chronic diseases account for 86% of health care costs nationwide.[10]

Asthma | In 2018, 9% of adults reported asthma (current), similar to the Wisconsin and US averages (Source #1).

Why is this important? Without proper management, asthma can lead to increased health care usage and decreased quality of life.[11] Management of the disease with medical care and prevention of attacks by avoiding triggers is essential.

Diabetes | In 2017, 9% of Brown County adults reported ever having been told by a doctor, nurse, or other health professional that they have diabetes (other than diabetes during pregnancy) Males were more likely to report having been diagnosed with diabetes (Source #2).

Why is this important? Diabetes may lead to serious health complications including heart disease, blindness, kidney failure and lower-extremity amputations.[12] The average medical expenditures among people with diagnosed diabetes were about 2.3 times higher than expenditures for people without diabetes. [13]

Coronary Heart Disease | In 2018, 5.5% of Brown County adults reported having ever been told by a doctor they have angina or coronary heart disease, slightly lower than the Wisconsin average of 5.63 (Source #2).

[8] 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 March 31, 2021.
[9] Key Facts about the Uninsured Population. Kaiser Family Foundation. Available at https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/. Accessed March 31, 2021.
[10] Centers for Disease Control and Prevention - Chronic Disease Prevention and Health Promotion. Available at http://www.cdc.gov/chronicdisease/index.htm. Accessed March 31, 2021.
[11] Centers for Disease Control and Prevention – Uncontrolled Asthma among Persons with Current Asthma. Available at https://www.cdc.gov/asthma/asthma_stats/uncontrolled_asthma.htm. Accessed March 31, 2021.
[12] Centers for Disease Control and Prevention. – Diabetes Basics. Available at https://www.cdc.gov/diabetes/basics/index.html. Accessed March 31, 2021.
[13] CDC National Diabetes Statistics Report, 2017: Estimates of Diabetes and Its Burden in the United States. Available at https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf. Accessed March 31, 2021.

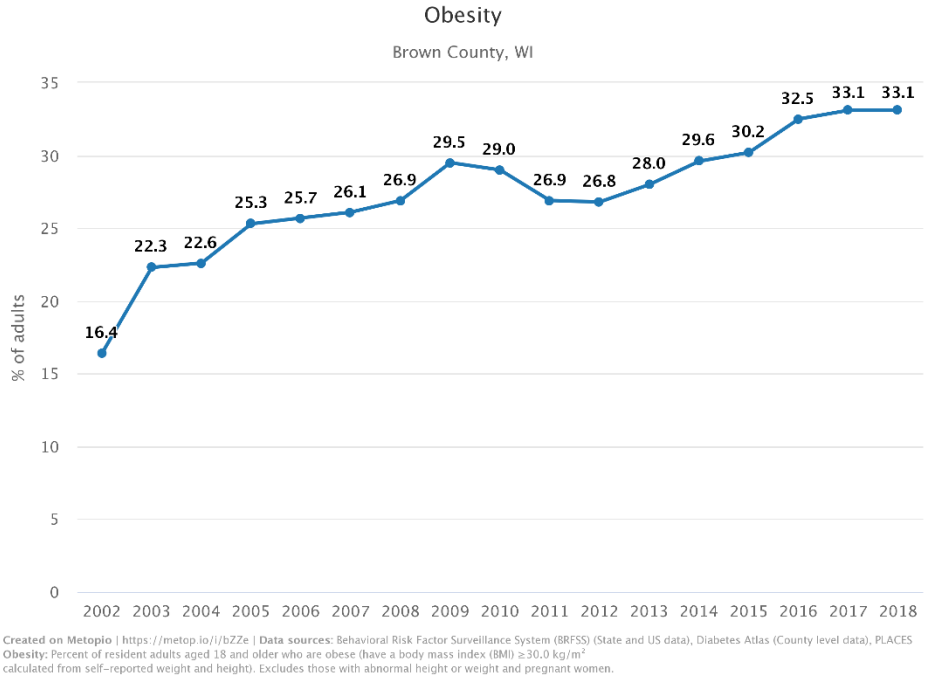
Why is this important? Heart disease (including coronary artery disease, angina, heart failure and arrhythmia) is the leading cause of death among both males and females in the United States. High blood pressure, high cholesterol and smoking are key risks for heart disease.[14]

Overweight/Obesity | In 2018, 33.1% of adults in Brown County were classified as being obese, an increase from the baseline of 16.4% in 2002 (Source #2).

A BMI of 30.0 or more is considered obese. Body Mass Index is calculated by using weight in kilograms/height in meters^2 (Source #2).

– The *Healthy People 2020* goal for healthy weight is to have less than 66.1% of the population classified as being overweight or obese.

Why is this important? 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. People who are obese have annual medical costs which average $1,429 higher than those of normal weight.[15]



[14] Centers for Disease Control and Prevention - Heart Disease. Available at https://www.cdc.gov/heartdisease/facts.htm. Accessed March 31, 2021.
[15] Centers for Disease Control and Prevention – Overweight & Obesity: Adult Obesity Facts. Available at https://www.cdc.gov/obesity/data/adult.html. Accessed March 31, 2021.

Cancer | The 2015-2019 cancer mortality rate in Brown County was 149.2 per 100,000 population, slightly lower compared to the state at 154.2 per 100,000. (Source #2).

> **Why is this important?** A person's cancer risk can be reduced in a number of ways including, but not limited to, receiving regular medical care and screenings, getting vaccinated, 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.[16]

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.[17]

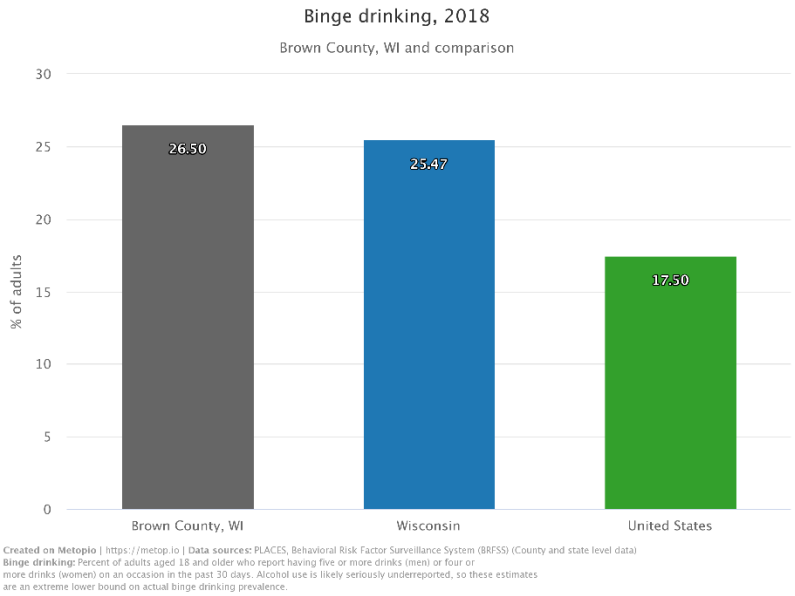
Alcohol use | In 2018, 26.5% of adults in Brown County reported binge drinking in past month, higher than the state (25.5%) and national (17.5%) averages (Source #2). Alcohol use was the most common reason Brown County residents sought substance use services in 2020, with 276 residents receiving treatment.[18]

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.[19] Alcohol and other drug use was listed as a top health issue to focus efforts on by community members and community stakeholders (Source #3).

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

> **Why is this important?** 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, poor diabetes control, cancer, mental health problems, and learning and memory issues. Binge drinking is extremely costly to society from losses in productivity, employment, health care, crime, and other expenses.[20]

[16] Centers for Disease Control and Prevention – Cancer. Available at https://www.cdc.gov/cancer/dcpc/prevention/index.htm. Accessed March 31, 2021.
[17] Centers for Disease Control and Prevention-Chronic Disease Overview. Available at https://www.cdc.gov/chronicdisease/about/index.htm. Accessed March 31, 2021.
[18] Wisconsin Department of Health Services. Available at https://www.dhs.wisconsin.gov/aoda/county-services-dashboard.htm. Accessed April 1, 2021.
[19] National Institute on Alcohol Abuse and Alcoholism – Alcohol & Your Health: Drinking Levels Defined. Available at https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking. Accessed March 31, 2021.
[20] Centers for Disease Control and Prevention – Alcohol & Public Health. Available at https://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm. Accessed March 31, 2021.



Substance use | In Brown County, the rate of drug overdose mortality was 11.9 per 100,000 population in 2014-2018, lower than Wisconsin rate of 18.0 per 100,000 population (Source #2). Marijuana use was the second most common reason Brown County residents sought substance use services in 2020, with 112 residents receiving treatment.[21] Alcohol and other drug use was listed as a top health issue to focus efforts on by community members and community stakeholders (Source #3).

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

Why is this important? Substance abuse is a major public health issue that has a strong impact on individuals, families, and communities. The use of illicit drugs, abuse of alcohol, and addiction to pharmaceuticals is linked to serious health conditions such as heart disease, cancer, and liver diseases, exacting over $600 billion annually in costs related to lost work productivity, healthcare, and crime. Substance abuse also contributes to a wide range of social, physical, mental, and public health problems such as teenage pregnancy, HIV/AIDS, STIs, domestic violence, child abuse, motor vehicle crashes, crime, homicide, and suicide.[22]

[21] Wisconsin Department of Health Services. Available at https://www.dhs.wisconsin.gov/aoda/county-services-dashboard.htm. Accessed April 1, 2021.
[22] Health Compass Milwaukee. Available at http://www.healthcompassmilwaukee.org/. Accessed March 31, 2021.

Tobacco Use and Exposure | In 2018, 18.0% of adults in Brown County reported having smoked at least 100 cigarettes in their lifetime and currently smoke every day or most days, a decrease from the 1996 baseline of 25.2% (Source #2).

- 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%.

  Why is this important? In the United States, cigarette smoking is the leading cause of preventable death. Smoking harms nearly every organ in the body, leading to disease and disability, including increasing 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. [23]

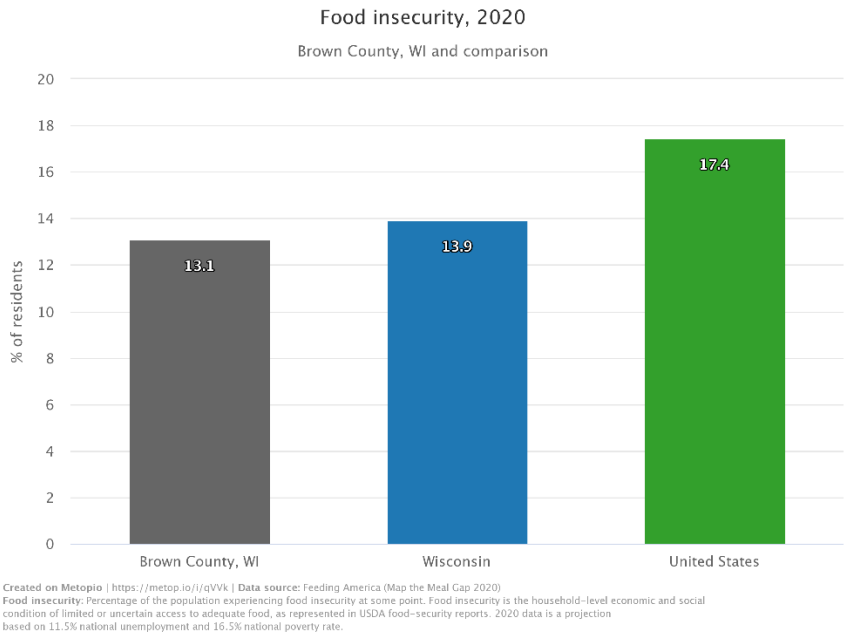
Nutrition and physical activity | In 2018, 19.7% of adults in Brown County reported no exercise in the past month, lower than the Wisconsin average (21.8%) and US average (23.6%) (Source #2).

Feeding America estimates 13.1% of Brown County residents experienced limited or uncertain access to adequate food at some point during 2020 (Source #2).

- 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 video games or using the computer for non-school work three or more hours on an average school day to 17.4%.

  Why is this important? Inactive adults have a higher risk for obesity, coronary heart disease, type 2 diabetes, stroke, some cancers, depression and other health conditions.[24] 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. [25]

[23] Centers for Disease Control and Prevention – Smoking & Tobacco Use. Available at https://www.cdc.gov/tobacco/data_statistics/fact_sheets/index.htm. Accessed March 31, 2021.
[24] Centers for Disease Control and Prevention – Division of Nutrition, Physical Activity, and Obesity. Available at https://www.cdc.gov/nccdphp/dnpao/division-information/media-tools/dpk/vs-disability-activity/index.html. Accessed March 31, 2021.
[25] Centers for Disease Control and Prevention – Physical Activity and Health. Available at https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm. Accessed March 31, 2021.



Injury and violence

Injury hospitalization | The 2019 Brown County age-adjusted injury-related hospitalizations rate was 385.4 per 100,000, which is lower than the state (418.0 per 100,000). Brown County residents who are Non-Hispanic Black had higher rates of injury-related hospitalizations compared to residents who are Hispanic, White or Asian. The age-adjusted injury-related emergency department (ED) visit rate for Brown County was 7,467.2 per 100,000, which is higher than the Wisconsin rate (7,251.5 per 100,000) and has been decreasing over time (Source #2). The injury-related death rate in Brown County was 65.9 per 100,000 population, lower than the Wisconsin rate of 76.6 per 100,000 population, but higher than the Healthy People 2020 goal of 53.3 per 100,000 population.

- 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 important? 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.[26]

[26] Centers for Disease Control and Prevention – Injury Prevention and Control. Available at https://www.cdc.gov/injury/wisqars/overview/key_data.html. Accessed March 31, 2021.

Older adults injury | In 2019, the injury hospitalization rate among Brown County adults aged 65 years and older was 1,449.4 per 100,000, lower than the state rate of 1,490.8 per 100,000 (Source #2).

> **Why is this important?** Of adults aged 65 years or older, one-third 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.[27]

Sexual violence | Sexual violence is defined as sexual activity when consent is not obtained or not given freely.[28] The rate of rape for Brown County was 35.8 reports per 100,000 persons, higher than Wisconsin's overall rate of 27.9 per 100,000 in 2019 (Source #2). However, 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.

> **Why is this important?** 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.[29]

Other violence | Brown County reported aggravated assault/battery rate of 194.3 per 100,000 residents, an increase from 2015 (Source #2). In Wisconsin, the rate of Child Protective Services (CPS) reports was 32.1 per 1,000 children in 2019; Brown County's rate was higher at 38.1 reports per 1,000 children (Source #2).

> **Why is this important?** Violence has a lasting effect throughout one's life. Survivors of violence may suffer from physical, emotional, social and other health problems.[30]

Reproductive health

Birth rate to teens| In 2015-2019, births among Brown County females aged 15-19 years was 7.7 per 1,000 females, lower than the state rate of 8.9 births per 1,000 females (Source #2).

> **Why is this important?** Teen pregnancy and childbearing bring substantial social and economic costs through immediate and long-term impacts on teen parents and their children. The children of teenage mothers are more likely to have lower school achievement and to drop out of high school, have more health problems, be incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult.[31]

[27] Centers for Disease Control and Prevention – Older Adult Falls: Get the Facts. Available at http://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html. Accessed March 1, 2021.
[28] Centers for Disease Control and Prevention – Violence Prevention: Sexual Violence. Available at https://www.cdc.gov/violenceprevention/sexualviolence/index.html. Accessed March 31, 2021.
[29] Centers for Disease Control and Prevention – Violence Prevention/Sexual Violence: Consequences. Available at https://www.cdc.gov/violenceprevention/sexualviolence/consequences.html. Accessed March 31, 2021.
[30] Centers for Disease Control and Prevention – Violence Prevention. Available at https://www.cdc.gov/violenceprevention/. Accessed March 31, 2021.
[31] Centers for Disease Control and Prevention – Reproductive Health: About Teen Pregnancy. Available at https://www.cdc.gov/teenpregnancy/about/index.htm. Accessed March 31, 2021.

Infant Mortality | In 2014-2018, the rate of infants dying before their first birthday in Brown County was 5.9 deaths per 1,000 live births, the rate is higher for non-Hispanic Black infants at a rate of 10.8 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 | In 2019, 31.8% of Brown County adults reported having negative feelings such as blue mood, despair, anxiety, or depression (Source #1). In 2018, 12.7% of Brown County adults reported 14 or more days during the past 30 days during which their mental health was not good (Source #2). Mental health was listed as a top health issue to focus efforts on by community members and community stakeholders (Source #3).

Mental health is defined as including "our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make healthy choices."[32] Indicators of mental health include emotional, social and psychological well-being. This definition differs from mental illness, which is classified as "conditions that affect a person's thinking, feeling, mood or behavior," which "may be occasional or long-lasting (chronic) and affect someone's ability to relate to others and function each day."[33] Anxiety, depression, and bipolar disorder are examples of mental illness.

> **Why is this important?** 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.[34]

Suicide | In 2015-2019, the Brown County suicide rate was 15.8 per 100,000, higher than the Wisconsin rate of 14.7 per 100,000 population (Source #2).

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

> **Why is this important?** A serious public health problem, suicide can have lasting harmful effects on individuals, their families and their communities. While its causes are complex and multifaceted, the aim of suicide prevention is to decrease risk factors and promote resilience.[35]

[32] Centers for Disease Control and Prevention – Learn About Mental Health. Available at https://www.cdc.gov/mentalhealth/learn/index.htm. Accessed March 31, 2021.
[33] Centers for Disease Control and Prevention – Learn About Mental Health. Available at https://www.cdc.gov/mentalhealth/learn/index.htm. Accessed March 31, 2021.
[34] Centers for Disease Control and Prevention – Learn About Mental Health. Available at https://www.cdc.gov/mentalhealth/learn/index.htm. Accessed March 31, 2021.
[35] Centers for Disease Control and Prevention – Suicide Prevention. Available at https://www.cdc.gov/violenceprevention/suicide/. March 31, 2021.

IV. Prioritization of Health-Related Issues

Priority Setting Process

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

During 2021, 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)
- Aligns with Advocate Aurora Health Community Strategy
- Quantifying health issues based on the *Hanlon Method for Prioritizing Health Problems*[36] (see Appendix E for details)

[36] 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 February 10, 2020.

Health Needs Selected

Using these criteria, Aurora BayCare Medical Center prioritized the significant health needs to address in the 2022-2024 implementation strategy:

- Access and coverage
- Behavioral health
- Social determinants of health: community safety, food security, and workforce development

Health Needs Not Selected

The implementation strategy does not include specific strategies and goals for chronic disease as this is part of the standard continuum of clinical care at Aurora BayCare, Aurora clinics and other community health care providers. 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. The implementation strategy also does not include specific strategies and goals for exercise and obesity, as the goal of the Advocate Aurora Health Community Strategy is to increase focus on social factors that impact health, in order to make the most effective use of limited resources. One of these factors Aurora BayCare has chosen to address is food insecurity, which is associated with nutrition and obesity. The implementation strategy does not include specific strategies for cigarette smoking, as the rates of cigarette smoking among the Brown County population have been decreasing over time.

V. Approval of Community Health Needs Assessment

The completed Community Health Needs Assessment (CHNA) report was adopted by the Aurora Health Care Community Board of the Advocate Aurora Health Board of Directors on December 14, 2021.

VI. Community Resources and Assets

Available community resources and assets for each top community health issue as noted by interviewed community members are located in Appendix C. The organizations listed as providing key informants for interviews are resources for the community as well. Specific resources leveraged by the hospital are identified in the Implementation Strategy.

VII. Vehicle for Community Feedback

To submit written comments about the Community Health Needs Assessment (CHNA) report or request a paper version of the report, go to aurora.org/commbenefits and select “Contact Us.”

VIII. Evaluation of Impact

The impact of the initiatives identified in Aurora BayCare’s *2018 Community Health Needs Assessment Report* / *2019-2021 Implementation Strategy* plan, which was executed with several successes, including supporting the Well Baby Project and providing linkages to Willow Creek Behavioral Health. For detailed evaluation of impact, see Appendix F.

IX. Appendices

Appendix A | Wello (Source #1)

The report is available at https://wello.org/wp-content/uploads/2020/06/2019-Community-Health-and-Well-being-Report.pdf

Methods:

Institutional Review Board (IRB) approval was granted to researchers from Wello, University of Wisconsin - Green Bay, and St. Norbert College to conduct this communitywide survey. IRB is an administrative body that protects the rights and welfare of human research subjects in research activities. A successful pilot survey was completed in the fall of 2018 to test the survey prior to implementation across Brown County.

From July 13 through August 31, 2019, Wello, in partnership with the Consortium of Applied Research at the University of Wisconsin - Green Bay and the Strategic Research Institute at St. Norbert College, administered Brown County's first comprehensive survey of resident health and well-being. The survey was based on an adapted version of the World Health Organization's Quality of Life - BREF (WHOQOL-BREF) survey, with added demographic and regionally specific open-ended questions. The survey collects subjective data - personal perspectives - about residents' well-being in four different domains: physical, psychological, social and the environments in which they live. This survey was administered over a six-week period at in-person community events, through email distribution from local companies, organizations, several community email lists, and through print, television and social media campaigns. Participants could take the survey electronically or on paper. The survey took approximately 10 minutes to complete, was available in both English and Spanish, and followed Institutional Review Board policies regarding the treatment of human subjects. Local data collection via this survey instrument will occur bi-annually with the next scheduled for July 2021.

The Consortium of Applied Research at the University of Wisconsin - Green Bay and the Strategic Research Institute at St. Norbert College using Qualtrics software, completed the data analysis that follows.

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

The report is available at https://metop.io/projects/iuwn83gn/

Data Collection & Analysis: In spring 2021, Advocate Aurora Health compiles secondary data from publicly available sources, using the data platform Metopio, to supplement the Behavioral Risk Factor Survey data.

Publicly available data sources used for the Secondary Data Report

Source	Description
American Community Survey	*American Community Survey* 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. *Source: United States Department of Commerce, US Census Bureau*
County Health Rankings	Each year the overall health of almost every county in all 50 states is assessed and ranked using the latest publicly available data. Ranking includes health outcomes (mortality and morbidity) and health factors (health behaviors, clinical care, social and economic factors and physical environment). *Source: Collaboration of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.*
Wisconsin Department of Health Services – Data & Statistics	All reportable communicable disease case counts, including sexually transmitted diseases (STD) and HIV incidence, are based on case reports. Reports are available for Wisconsin statewide, the five DPH regions, and the 72 Wisconsin counties. *Source: Wisconsin Department of Health Services*
Wisconsin Interactive Statistics on Health (WISH)	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. *Source: Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics*

Data for each indicator is presented by race, ethnicity and gender when the data is available.

Partners & Contracts: Subscriptions to Metopio data platform licenses are funded by Aurora Health Care.

Appendix C | Public Input Survey Summary (Source #3)

The report is available at aurora.org/commbenefits

Data Collection and Analysis: Seventy-two key surveys were completed in March 2021.

The report summarized top health issues and additional strategies needed to address the issue from the perspective of community members and community stakeholders who represent the broad interests of the community served.

Partners & Contracts: This report was sponsored Aurora BayCare Medical Center, the Brown County Health Department, the City of De Pere Health Department, Bellin Health System, Hospital Sisters Health Systems' St. Mary's and St. Vincent's Hospitals, N.E.W. Community Clinic, Oneida Nation, Wisconsin Department of Health Services and the Brown County United Way.

Brown County Health & Human Services
Public Health Division

CHA Public Input Survey Summary
March 2021

- 72 responses
- Things missing from CHA
  - LGBTQ+ community
  - Expand Medicaid in Wisconsin
  - Number of residents unable to access healthcare because of their immigration status
  - Increase education about maternal and infant mortality
  - Senior friendly; geriatric MDs
  - Grants to homeowners who would like to increase curb appeal
  - Don't agree w/making payments to landlords when tenants are unable to pay; would suggest a temporary, low interest, or no interest loan that holds them accountable
  - Financial literacy class for tenants, like those offered at Freedom House
  - Mentioning the social determinants of health on the two pager
  - Mentioning how to address social isolation during COVID
  - How our county and community can help to assist the state to decriminalize cannabis use
  - Exercise in the community
  - Vision/hearing program in schools
  - Access should include removing legislatively created barriers that are not science based
  - Driver's license to all Wisconsin residents regardless of immigration status
  - Improve access to comprehensive treatment and recovery options, including nicotine in recovery
  - Add more differing ability spaces (wheelchair, walker friendly, etc.)
  - Increase walkability and movement friendly spaces
  - Substance free events
  - Health equity in all policies
  - Strategic and formalized alignment with Wello and United Way's efforts
  - Trauma healing initiatives
  - Access to healthy foods
  - Mixed income development

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- Bike lanes
- What 2-3 issues should BCPH focus their efforts on?
  - Built Environment
    - Create safe neighborhoods, esp for younger population (3)
    - Affordable housing (5)
    - Sober Park spaces; safe and sober community spaces for kids
    - Senior transportation
    - Reduce litter
    - Reduce use of plastic bags
  - Social and Economic
    - Livable wage (4)
    - Combat racism (6)
    - Equality for everyone
    - Increase perinatal care for women of color
    - Health conditions determined by socio-economic factors, pediatric physical and emotional health, smoking and alcohol
    - Senior health and support for minorities (2)
  - Health Behaviors
    - Healthy eating habits (3)
    - Exercise (4)
    - Increase number of breastfed babies to the age of 1
    - Increase number of children on time for vaccine schedules
    - Vaccine education (2)
    - Drugs and alcohol education (9)
    - Maternal/infant mortality
  - Clinical Care
    - Navigating healthcare system
    - Access to care (2)
    - Opportunities for healthcare for uninsured population
    - Mental health (14)
    - Cost of healthcare
    - Universal vision services
    - Lack of senior providers
      - Treat elderly caregivers as we do early childhood; strategies to make sure it is affordable and high quality

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- COVID
  - Stopping the spread (2)
  - COVID vaccine (8)
  - After effects of COVID
- Other
  - Unified planning (2)
  - LGBTQ+ health issues
  - Equitable access (4)
  - Health equity
  - Social cohesion (2)
    - Additional opportunities for seniors to connect under social cohesion
  - Calling out racism as a cause for health problems, pay disparities, and achievement gaps in education
  - Inclusion of Sober Green Bay initiatives was highlighted
  - Fostering a great sense of inclusion, tolerance, and civic mindedness
  - Make payments to landlord to prevent evictions
  - Support groups for vulnerable populations

- What steps should we take to address these issues?
  - Mental Health
    - Programs for kids (4)
    - Classes in high school (2)
    - Increase availability to services for everyone (2)
    - Support groups (3)
    - Engage w/providers
    - One stop shop for parents to identify resources to find care for mental health conditions (3)
    - Motivate youth to want to be a mental health professional
    - More providers (2)
  - Substance Use
    - Make fines more expensive
    - Support groups (2)
    - Resources for folks quitting (2)
    - Science based, nonjudgmental education campaigns to courage better decision making about cigarette and alcohol abuse

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- Community Engagement Ideas
  - Educate and engage the public (8)
  - Partnerships with schools
  - Encourage people to be leaders in community
  - Farmers Market, parade, fair
  - Informational events
  - Billboards
  - Leveraging existing organizations in the community to tackle the issues
  - Include Packers and other prominent and trusted figures
  - Use Lambeau as an area for folks to exercise, socialize, explore
  - Community trainings on cultural competence, implicit bias
  - Educate the community on existing resources
  - Sponsor free resources fairs w/children's activities
  - Public health projects and outreach groups
  - Involve government entities (2)
    - Helping policy makers understand
- Healthcare
  - Help people understand the healthcare system
  - Extend existing healthcare continuum
  - Create educational tools, so it is easier to navigate the healthcare system
  - Make healthcare and pharmaceutical industry public
- Inclusivity
  - Not shaming others for who they are
  - Evaluate criminal charges press against residents of color vs. white residents
- Other
  - Work w/St. Norbert to get more geriatricians
  - Playgrounds for kids
  - Neighborhood watch groups
  - Getting everyone their vaccine
  - Do research
  - Affordable educational opportunities
  - Making sure companies are paying a livable wage
  - Assist landlords' w/cost of rental unit repairs to pass HQS inspections through forgivable loans

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  - Schedule appointments for car seat fitting, lead tests
  - Hold immunization clinics
  - Provide hotels with a phone number they can call for a welfare check
  - More recycling events
  - Creating policies that reduce low wages
  - Identify measures we want to impact
- Is there anything else you would like to share with us?
  - Spread the word that LGBTQ+ should be accepted
  - Lots of thank you's for what we are doing
  - Seeing lots of talk, want to see action/measurable results (2)
  - Encourage our elected officials, primarily Republicans, to be more open to factual information and science so that our public health does not run off the rails again
  - You are doing a great job; keep it up
  - Green Bay needs to work on not being an area that is so largely focused on alcohol overconsumption
  - Third priority seems disjointed and a little haphazard
  - Our community experiences trauma this past week; need to keep an eye on suicides, mental health, drug abuse, self-harm, etc.; equitable access to providers is very important to address
  - Educate food pantry patrons on healthy eating, promote gardening, farmers market
  - When doing physicals and Medicare wellness we would ask about exercise. Many times the response would be I don't go to a gym. I would then explain that exercise does not require a membership you can walk, run, bike, row etc. Maybe somehow incorporate a different frame of "mind" per say as well so that people see sidewalks and bike lanes as exercise opportunities
  - International trade and corporate law should be taxed to make up for the deficits they're creating in the communities
- Demographic info
  - 95% individuals
  - 81% woman/female
  - 19% man/male
  - 34% 0-18
  - 17% 31-40
  - 16% 41-50
  - 13% 19-30

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  - 11% 60+
  - 8% 51-60
  - 87% Caucasian
  - 6% Latino/Hispanic
  - 4.3% two or more
  - 1% Asian
  - 1% Native American
  - 39% City of De Pere
  - 21% City of Green Bay
  - 10% Outside of Brown County
  - 8.7% Village of Suamico
  - 6% Town of Lawrence
  - 21% some high school
  - 18% high school
  - 35% Bachelor's Degree
  - 21% Master's Degree
- How did you hear about the survey?
  - Email from Sarah Inman
  - Email
  - Facebook
  - Channel 5 news
  - Online
  - BCPH CE outreach
  - Word of mouth
  - Through working with BCPH
  - DHS Regional Office
  - Co-worker
  - Connections for Mental Wellness

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Appendix D | County Health Rankings Summary: Brown County 2021

County Demographics –

	County	State
Population	264,542	5,822,434
% below 18 years of age	23.5%	21.8%
% 65 and older	15.4%	17.5%
% Non-Hispanic Black	2.7%	6.4%
% American Indian & Alaska Native	3.4%	1.2%
% Asian	3.4%	3.0%
% Native Hawaiian/Other Pacific Islander	0.1%	0.1%
% Hispanic	9.0%	7.1%
% Non-Hispanic White	80.3%	80.9%
% not proficient in English	2%	1%
% Females	50.4%	50.2%
% Rural	14.5%	29.8%

	Brown (BR) County	Trend	Error Margin	Top U.S. Performers	Wisconsin
Health Outcomes					
Length of Life					
Premature death	5,700		5,400-6,000	5,400	6,300
Quality of Life					
Poor or fair health	15%		13-17%	14%	15%
Poor physical health days	3.9		3.5-4.2	3.4	3.7
Poor mental health days	4.1		3.7-4.5	3.8	4.0
Low birthweight	7%		6-7%	6%	7%
Additional Health Outcomes (not included in overall ranking) –					
Life expectancy	79.9		79.6-80.3	81.1	79.5
Premature age-adjusted mortality	280		270-290	280	310
Child mortality	50		40-60	40	50
Infant mortality	7		6-8	4	6
Frequent physical distress	12%		11-13%	10%	11%
Frequent mental distress	13%		11-14%	12%	13%
Diabetes prevalence	10%		8-13%	8%	10%
HIV prevalence	77			50	129

	Brown (BR) County	Trend	Error Margin	Top U.S. Performers	Wisconsin
Health Factors					
Health Behaviors					
Adult smoking	18%		15-21%	16%	17%
Adult obesity	34%		29-38%	26%	32%
Food environment index	8.7			8.7	9.0
Physical inactivity	19%		16-22%	19%	20%
Access to exercise opportunities	92%			91%	85%
Excessive drinking	28%		27-29%	15%	27%
Alcohol-impaired driving deaths	45%		40-50%	11%	36%
Sexually transmitted infections	459.1			161.2	483.6
Teen births	18		17-19	12	15
Additional Health Behaviors (not included in overall ranking) –					
Food insecurity	8%			9%	9%
Limited access to healthy foods	6%			2%	5%
Drug overdose deaths	13		11-16	11	20
Motor vehicle crash deaths	7		6-8	9	10
Insufficient sleep	33%		31-34%	32%	33%

	Brown (BR) County	Trend	Error Margin	Top U.S. Performers	Wisconsin
Clinical Care					
Uninsured	7%		6-8%	6%	7%
Primary care physicians	1,390:1			1,030:1	1,270:1
Dentists	1,240:1			1,210:1	1,410:1
Mental health providers	480:1			270:1	470:1
Preventable hospital stays	2,830			2,565	3,747
Mammography screening	49%			51%	49%
Flu vaccinations	55%			55%	53%
Additional Clinical Care (not included in overall ranking) –					
Uninsured adults	8%		7-9%	7%	8%
Uninsured children	4%		3-5%	3%	4%
Other primary care providers	650:1			620:1	810:1
Social & Economic Factors					
High school completion	92%			94%	92%
Some college	70%			73%	70%
Unemployment	3.1%			2.6%	3.3%
Children in poverty	12%		10-15%	10%	14%
Income inequality	4.0		3.9-4.2	3.7	4.2
Children in single-parent households	21%		19-24%	14%	23%
Social associations	8.5			18.2	11.5
Violent crime	250			63	298
Injury deaths	70		65-74	59	84

	Brown (BR) County	Trend	Error Margin	Top U.S. Performers	Wisconsin
Additional Social & Economic Factors (not included in overall ranking) –					
High school graduation	91%			95%	90%
Disconnected youth	4%		2-5%	4%	5%
Reading scores	3.0			3.3	3.0
Math scores	2.9			3.4	3.0
Median household income	$65,500		$61,100-69,900	$72,900	$64,200
Children eligible for free or reduced price lunch	40%			32%	39%
Residential segregation - Black/White	61			23	76
Residential segregation - non-white/white	38			14	55
Homicides	2		1-2	2	4
Suicides	16		14-18	11	15
Firearm fatalities	8		6-9	8	11
Juvenile arrests	10				
Physical Environment					
Air pollution - particulate matter	7.0			5.2	7.0
Drinking water violations	No				
Severe housing problems	13%		12-14%	9%	14%
Driving alone to work	84%		83-85%	72%	81%
Long commute - driving alone	15%		14-16%	16%	28%
Additional Physical Environment (not included in overall ranking) –					
Traffic volume	542				597
Homeownership	65%		64-66%	81%	67%
Severe housing cost burden	10%		9-11%	7%	12%
Broadband access	85%		84-86%	86%	83%

Note: Blank values reflect unreliable or missing data

Appendix E | Hanlon Method for Prioritizing Health Problems

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 x B)] x 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.

Hanlon Rankings of Health Problems					
Ranking	**Health Issue Based on CHNA Data**	**A**	**B**	**C**	**D**
1	No checkup in past year	4	7	9	152
2	No physical activity	2	5	4	136
3	Overweight	5	8	4	
4	Binge Drinking	4	8	4	80
5	Cigarette Smoking	2	9	4	80

Appendix F | Evaluation of Impact

Focus | Access

Intended Impact

- Increased access to care

Results

2019

- 1,910 non-emergent ED visits without a primary care physician; 329 of those saw an AHC primary care provider within 28 days
- 2,214 pediatric patients provided access to specialty diagnostic and treatment services in partnership with UW Health
- 463 new patients served by bilingual AHCMG pediatrician provided to N.E.W. Community Clinic for children and their families who do not have resources to pay for health services; 925 medical visits provided
- $10,500 support provided to N.E.W. Community Clinic and Shelter
- 38 students seen by nurse practitioner provided for women's health services at University of Wisconsin-Green Bay health center
- 987 women screened for risk factors contributing to child abuse and neglect through the Well Baby Project. If a mother is deemed high-risk, a Community Partnership Program staff member provides information about community resources and schedules a home visit with the patient after discharge; $40,500 support provided to Well Baby Project
- $7,000 support provided to Family Services

2020

- 2,024 non-emergent ED visits without a primary care physician; 330 of those saw an AHC primary care provider within 28 days
- 2,056 pediatric patients provided access to specialty diagnostic and treatment services in partnership with UW Health
- 100 new patients served by bilingual AHCMG pediatrician provided to N.E.W. Community Clinic for children and their families who do not have resources to pay for health services; 581 medical visits provided
- 22 students seen by nurse practitioner provided for women's health services at University of Wisconsin-Green Bay health center
- 932 women screened for risk factors contributing to child abuse and neglect through the Well Baby Project. If a mother is deemed high-risk, a Community Partnership Program staff member provides information about community resources and schedules a home visit with the patient after discharge

Focus | Behavioral health

Intended Impact

- Increased linkages to appropriate care for behavioral health

Results

2019

- 84% of internal medicine, family practice, pediatrics and obstetrics/gynecology patients screened for depression
- 103 patients who present in our ED with a behavioral health complaint discharged to Willow Creek Behavioral Health
- 82 patients treated in suboxone clinic; 386 visits provided
- $83,000 support provided to Jackie Nitschke Center, a local alcohol and other drug abuse treatment center
- 1 team member designated to serve on the Healthy Brown County 2020 Alcohol and Drug Coalition
- $5,000 support to Brown County Coalition for Suicide for “Be the Light” walk

2020

- 89% of internal medicine, family practice, pediatrics and obstetrics/gynecology patients screened for depression
- 99 patients who present in our ED with a behavioral health complaint discharged to Willow Creek Behavioral Health
- 101 patients treated in suboxone clinic; 419 visits provided
- 1 team member designated to serve on the Healthy Brown County 2020 Alcohol and Drug Coalition for Change
- 1 team member designated to serve on the Healthy Brown County 2020 Mental Health Taskforce

Focus | Nutrition and Physical Activity

Intended Impact

- Increased opportunity for physical activity and good nutrition

Results

2019

- 292 employees participated in *LiveFit: Prescription* program; 2,715 employees with Aurora BayCare fitness center membership
- Participate in Wello, a community obesity prevention initiative
- 3,000 participants in Open Streets Green Bay
- 1 team member designated to serve on the Beyond Health Nutrition and Physical Activity Taskforce
- $10,000 support provided to the Green Bay YMCA Strong Kids Campaign
- $1,000 support provided to Ben's Wish Program to address food insecurity

2020

- 161 employees participated in *LiveFit: Prescription* program; 1,104 employees with Aurora BayCare fitness center membership
- Participate in Wello, a community obesity prevention initiative
- 452 community members participated in virtual medley; 350 community members participated in virtual Race the Lake
- 1 team member designated to serve on the Beyond Health Nutrition and Physical Activity Taskforce

Focus | Youth Injury Prevention

Intended Impact

- Improved youth concussion prevention, identification and intervention

Results

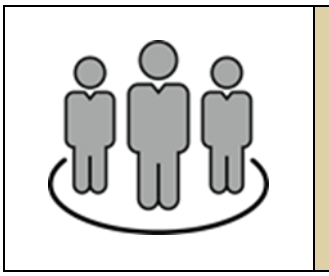
2019

- 787 baseline concussion screenings provided
- 135 student athletes treated for a concussion (with previous concussion baseline screening
- 1,132 free health screenings and injury assessments provided

2020

- 673 baseline concussion screenings provided
- 68 student athletes treated for a concussion (with previous concussion baseline screening
- 897 free health screenings and injury assessments provided

Focus | Chronic disease



Intended Impact

- Increased awareness and control of chronic disease

Results

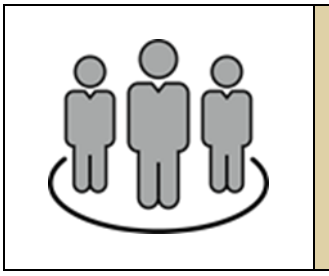
2019

- 10 Healthy Living with Diabetes sessions provided; 36 attendees
- 6 skin cancer screenings provided; 116 individuals screened
- $5,000 support provided to American Cancer Society
- $1,000 support provided to Ribbon of Hope
- 36 breast cancer support groups provided; 82 attendees
- $7,500 support provided to Colon Cancer Coalition
- $10,000 support provided to Crohns and Colitis Foundation
- 25 stroke educational sessions provided; 5,367 attendees
- $3,000 support provided for the American Heart Association
- $1,000 support provided to support community stroke education event

2020

- 14 Healthy Living with Diabetes sessions provided; 22 attendees
- 6 skin cancer screenings provided; 102 individuals screened
- 12 stroke educational sessions provided; 699 attendees

Focus | Workforce development



Intended Impact

- Increased number of providers within Brown County

Results

2019

- 43 medical students participating in the WARM program rotation at Aurora BayCare
- 4 EMT scholarships provided; 6 Advanced EMT scholarships provided; 4 paramedic scholarships provided
- 4 EMS Huddle session provided; 347 attendees

2020

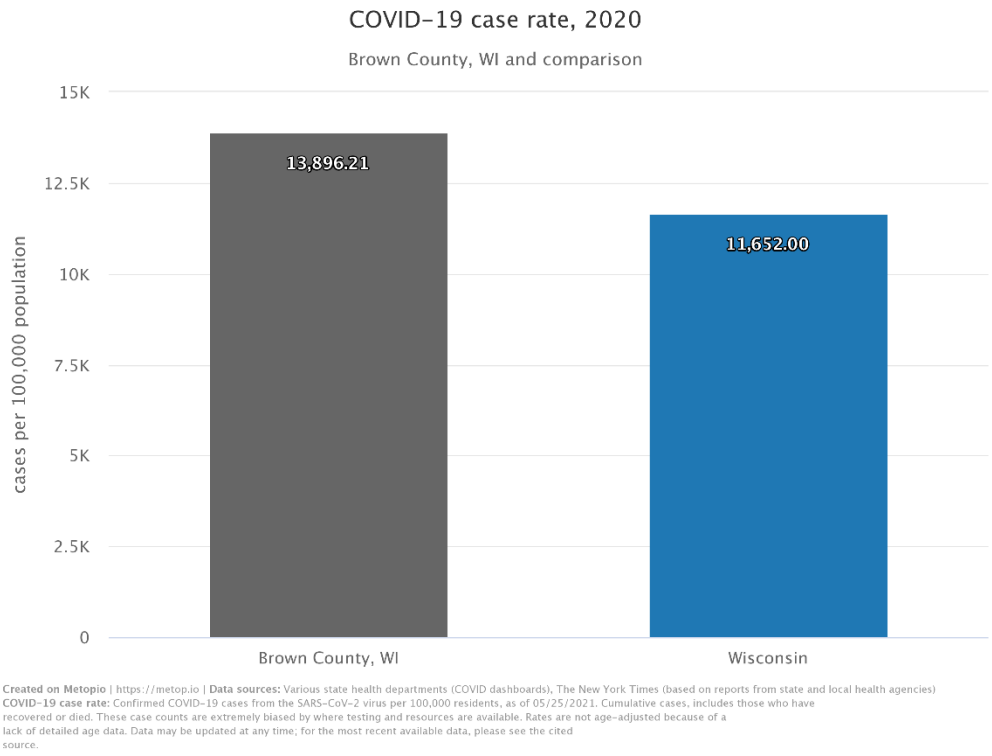
- 52 medical students participating in the WARM program rotation at Aurora BayCare
- 8 EMT scholarships provided; 3 paramedic scholarships provided
- 1 virtual EMS Huddle session provided; 20 attendees

Appendix G | Coronavirus/COVID-19 Pandemic

On April 4, 2020, Governor Tony Evers declared all counties in the State of Wisconsin as a disaster area in response to the outbreak of COVID-19. The COVID-19 pandemic was occurring during the CHNA data collection and analysis for Aurora BayCare. Advocate Aurora's response to the pandemic has been added to Aurora BayCare's 2022-2024 Implementation Strategy as an additional priority within addressing social determinants of health, and current COVID-19 data is described below.

The pandemic has significantly impacted all populations and communities in the state, but has disproportionately impacted low income communities, magnifying social determinants of health while diminishing social service capacity to address them. Black Americans are more likely to be at higher risk for contracting COVID-19, have lower access to testing, are more likely to experience more severe complications from the infection, and are on average 30 percent more likely to have health conditions that exacerbate the effects of COVID-19.[37]

The chart below shows the confirmed COVID-19 cases per 100,000 residents, as of May 25, 2021.[38] During that time, the case rate for Brown County was 13,896.21 per 100,000 residents, higher than the Wisconsin average of 11,652.00. These case counts are dependent on where testing and resources are available.



[37] McKinsey & Company COVID-19: Investing in Black Lives and Livelihoods. Available at https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-investing-in-black-lives-and-livelihoods#, accessed November 30, 2020.
[38] Metopio COVID-19 case rate, 2020. Available at https://metop.io/i/nWY4/, accessed May 26, 2021.

The chart below shows a summary of cumulative total COVID-19 statistics in Wisconsin, as of May 25, 2021.[39] There have been 608,959 confirmed cases of COVID-19 reported. 97.9% of those cases have recovered, and 0.9% of those cases are still active. 6,998 confirmed cases of COVID-19 have been reported as having died from COVID-19 and 30,742 have been hospitalized.

Wisconsin COVID-19 Summary Statistics

Cumulative data, Updated: 5/25/2021

Testing*

Total people tested: 3,541,176 (+2,775 from prior day)
Positive (Confirmed Case): 608,959 (+376)
Negative: 2,932,217 (+2,399)

Confirmed Case Information

Recovery Status	Deaths	Hospitalizations
Recovered: 595,882 (97.9%)	Deaths: 6,998 (+8)	Ever hospitalized: 30,742 (+75)
Active: 5,781 (0.9%)	Percent who died: 1.1%	Percent ever hospitalized: 5.0%

*Testing data represent the number of people tested by a confirmatory, diagnostic test that detects the virus in the nose or throat (and not a blood test that detects antibodies). No antigen or antibody test results are included in this figure. Multiple tests per person are not included in these summary statistics.

[39] Wisconsin Department of Health Services COVID-10 Wisconsin Summary Data. Available at https://www.dhs.wisconsin.gov/covid-19/data.htm#summary, accessed May 24, 2021.