2013 Community Health Needs Assessment Report

2014 Implementation Strategy

Aurora BayCare Medical Center

Aurora Health Care®  BayCare Clinic

Aurora BayCare Medical Center
2845 Greenbrier Road
Green Bay, WI 54311
Table of Contents

**Introduction** | Aurora Health Care .................................................................................. 3

**Part I** | Aurora BayCare Medical Center ........................................................................ 3 - 4

**Part II** | 2013 Aurora BayCare Medical Center Community Health Needs Assessment (CHNA) Report .................................................................................................. 5 - 18
   
   - **Section 1** | Community Served: Brown County ................................................................. 5 - 6
   - **Section 2** | How the Community Health Needs Assessment (CHNA) was conducted ...... 7 - 9
   - **Section 3** | Significant health needs of the community identified through the CHNA ...... 10 - 16
   - **Section 4** | Prioritized significant health needs (and reasons for not addressing significant health needs) ................................................................................................. 17 - 18

**Part III** | 2014 Aurora BayCare Medical Center Implementation Strategy ...................... 19 - 31
   
   - **Introduction** .................................................................................................. 19
   - **Priority 1** | Access ........................................................................................................ 20 - 21
   - **Priority 2** | Community Health Improvement .................................................................... 22 - 24
   - **Priority 3** | Community Benefit Hospital Focus .................................................................. 25 - 31

**Appendix A** | Brown County and City of De Pere Health Departments Community Health Assessment Report (Source #1 description) ................................................................. 32 - 33

**Appendix B** | Brown County Health Data Report: A summary of secondary data sources (2012) (Source #2 description)......................................................................................... 34

**Appendix C** | Key Informant Interview Summary for Brown County (Source #3 description)... 35 - 36
Introduction | Aurora Health Care

Aurora Health Care, a not-for-profit, integrated health care 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 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 Visiting Nurse Association. Our pharmacies, behavioral health services and labs all work together to provide a vital link in the continuum of care.

Part I | Aurora BayCare Medical Center (ABMC)

Who we are. What we do
Aurora BayCare Medical Center is committed to providing the highest quality comprehensive healthcare through superior personalized service, the advancement of medical education and research, and the most efficient use of resources.

Aurora BayCare Medical Center is a joint venture of Aurora Health Care and BayCare Clinic. BayCare Clinic is the largest physician-owned specialty-care clinic in Northeast Wisconsin and the Upper Peninsula of Michigan. It is comprised of over 100 specialty physicians with expertise in more than 20 specialties. BayCare Clinic physicians have served patients in Green Bay and the surrounding region for over 25 years. To learn more about BayCare Clinic, visit the BayCare web site at http://www.BayCare.net.

Who we serve
Aurora BayCare Medical Center is a 167-bed, full-service hospital serving the Green Bay area and communities throughout northeastern Wisconsin and Michigan’s Upper Peninsula. At Aurora BayCare Medical Center, patients will get the highest quality care in a healing environment that emphasizes their comfort and convenience.

Aurora BayCare Medical Center by the Numbers (2012)

More than:
- 176,900 outpatient visits
- 1,700 newborn deliveries
- 18,700 Emergency Department visits
- 13,900 surgical cases (inpatient & outpatient)

Centers of Excellence
- Bariatrics Program
- Cancer Care Services
- Cartilage Center
- Emergency Medicine and Trauma
- Heart, Lung and Vascular Center
- NeuroCare Brain and Spine Center
- Orthopedic Services
- Sports Medicine & Athletic Performance
- The Women’s Center
Distinctions

- Aurora BayCare is the first hospital to receive American Heart Association Mission Lifeline: Heart Attack Receiving Facility accreditation. This recognizes outstanding heart care, especially in emergency situations including heart attacks.

- U.S. News & World Report named Aurora BayCare Medical Center among the Best Hospitals in Northeastern Wisconsin as part of its 2013-14 Best Hospitals rankings. It marks the third time in a row that Aurora BayCare has been named one of the Best Hospitals in Northeastern Wisconsin.

- U.S. News & World Report ranked Aurora BayCare as the ninth-best hospital in Wisconsin.

To learn more about our hospital, please click here.

Economic impact study – Brown County

A report by the University of Wisconsin-Milwaukee found that Aurora Health Care’s economic impact is substantial in every county in which its hospitals, clinics and other ambulatory facilities operate.¹

- Aurora’s combined operations rank among the top ten employers in Brown County, at number six with 2,251 jobs. When taking into account the additional employment generated in the county through the ripple effects of Aurora’s operations on other business, the number grows to 3,881 jobs (pg. 25).

- When all multiplier effects are calculated, Aurora’s economic impact accounts for an estimated 2.9 percent of all employment and 3.2 percent of total payroll in Brown County (pg. 26).

- Aurora’s business output/input revenue for Brown County has a total impact of $618.32 million (pg. 24).

- As an anchor institution, in 2012 Aurora BayCare Medical Center provided the following:
  - Community Benefits: $535,883
  - Uncompensated Care: $18,755,000

*Community Benefit Report 2012 Aurora BayCare Medical Center

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

With over 245,000 residents, Brown County is the 4th largest County in Wisconsin. Agriculture production and agribusiness is of tremendous importance to the community. Dairying is the largest income generator, although canning, cash crops, and other livestock also contribute substantially to the income generated in this area. The largest employer in Brown County is the Oneida Tribe of Indians of Wisconsin: Business/Development Corp.  

Brown County offers higher education opportunities at three major institutions: The University of Wisconsin-Green Bay, St. Norbert College and Northeastern Wisconsin Technical College.

Green Bay is largest city in Brown County and is home to the Green Bay Packers. The principal industry of Green Bay is that of paper-making. The city has four large paper mills, three pulp mills and four paper-converting companies, with products used throughout the nation.  

Green Bay is the home base for one of the nation’s most recognized environmental quality paper converters and recycling companies. The recycling industry is fast becoming a sizable economic force in new jobs: paper, plastics, and wood products are all being recycled or processed locally. Additionally, Green Bay is the largest cheese processing, concentrating and shipping center in the U.S.  

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

• 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

---

5 Brown County. Available at http://www.co.brown.wi.us/municipalities/. Accessed November 12, 2013
County health ranking

According to the 2013 County Health Rankings released by the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation, Brown County ranked number 30 out of 72 counties in health outcomes. The rankings help counties understand the many factors that influence health.6

Demographic Characteristics of Brown County and Wisconsin, 2010

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Brown County</th>
<th>Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population*</td>
<td>251,412</td>
<td>5,686,986</td>
</tr>
<tr>
<td>Median Age (years)*</td>
<td>36.2</td>
<td>38.5</td>
</tr>
<tr>
<td>Race*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White (non-Hispanic)</td>
<td>88.4%</td>
<td>86.2%</td>
</tr>
<tr>
<td>Black or African American (non-Hispanic)</td>
<td>2.7%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Asian</td>
<td>2.8%</td>
<td>2.3%</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>2.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Some other race</td>
<td>1.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>7.5%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Age*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-14 years</td>
<td>20.7%</td>
<td>19.4%</td>
</tr>
<tr>
<td>15-44 years</td>
<td>40.4%</td>
<td>39.2%</td>
</tr>
<tr>
<td>45-64 years</td>
<td>27.2%</td>
<td>27.7%</td>
</tr>
<tr>
<td>65 years and older</td>
<td>11.7%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Education level of adults 25 years and older**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school degree</td>
<td>9.6%</td>
<td>9.9%</td>
</tr>
<tr>
<td>High school degree</td>
<td>31.6%</td>
<td>31.6%</td>
</tr>
<tr>
<td>Some college/associates</td>
<td>32.2%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Bachelor degree or higher</td>
<td>26.6%</td>
<td>24.0%</td>
</tr>
<tr>
<td>Unemployment rate (estimate)**</td>
<td>5.4%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Median household income (estimate)**</td>
<td>$52,406</td>
<td>$49,001</td>
</tr>
<tr>
<td>(2011 inflation-adjusted dollars)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent below poverty in the last 12 months (estimate)**</td>
<td>10.9%</td>
<td>15.3%</td>
</tr>
</tbody>
</table>

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


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

In 2014, Aurora BayCare Medical Center will partner with the Brown County and City of De Pere Health Departments, in collaboration with additional community stakeholders, to assess community health needs in Brown County.

To complete this CHNA Quantitative data was collected through 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., 2010, 2012) will vary in this report. The most current data available was used for the CHNA.

The Center for Urban Population Health (www.cuph.org), with funding from Aurora Health Care, prepared a secondary data report (2012) for Brown County.

Purpose and process of the Community Health Needs Assessment

From 2011-2013 a community health needs assessment (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 illustrated below and is described in this report.
Data collection and analysis

The core data sources for the CHNA include:

Source #1 | Brown County and City of De Pere Health Department Community Health Assessment Report
As a state statute, health departments in Wisconsin must complete a community health assessment every five years and develop a community health improvement plan. In the summer of 2010, the CHIP Steering Committee brought together an array of community stakeholders to review community health data and provide their community knowledge and expertise in relationship to the Healthiest Wisconsin 2020 health focus areas.7

Healthiest Wisconsin 2020 focus areas include social, economic, and educational factors that influence health; emergency preparedness, response and recovery; alcohol and drugs; chronic disease; communicable disease; environmental and occupational; growth and development; injury and violence; mental health; nutrition; oral health; physical activity; reproductive and sexual; and tobacco. This served as the basis for the health needs assessment and an epidemiologist from the Wisconsin Department of Health gathered data from secondary sources (such as public health statistics) on how Brown County and the city of De Pere compared with the statewide data.

From 2010-2011, the CHIP steering committee and the community partner group discussed key data points and rated the health focus areas on three criteria: magnitude (number of people impacted), seriousness (level of impact of the problem), and feasibility (whether there are known interventions to address the problem). Based on this process, the health focus areas were narrowed down to the top eight. Subsequently, a multi-vote approach was used to identify the top three community needs. The top three health issues to address were: oral health, adequate and appropriate food and nutrition, and alcohol and other drug abuse (AODA).

See Appendix A for the Brown County and City of De Pere Health Department Community Health Assessment Report. The report is available at: http://www.co.brown.wi.us/i_brown/d/health/CHIP%20Assessment%20brochure%202011.pdf or http://www.depere.org/egov/documents/1331740767_454376.pdf

Source #2 | Secondary Data Report
This report summarizes the demographic and health-related information for Brown County, including the 2012 County Health Rankings (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 by the Center for Urban Population Health. For further description see Appendix B.

Source #3 | Key Informant Interview Summary
In November 2013, key informant interviews were conducted with the health officer for Brown County and an administrator of the North East Wisconsin (N.E.W.) Community Clinic. These key informants focus on a range of public health issues and represent the broad interest of the community served, including medically underserved, low income and minority populations.

Each key informant was asked to rank order the top 3 to 5 major health-related issues for Brown 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 and key groups in the community that hospitals should partner with to improve community health. For further description see Appendix C.

7 This was a shared community health needs assessment with multiple stakeholders, including Bellin Health and St. Vincent/St. Mary’s Hospitals. See Appendix A for a full listing of partners.
The Key Informant Interview Summary includes the top five health issues in Brown County and community resources (Appendix C). The top five health issues for Brown County:

- Alcohol and drugs
- Mental health
- Oral health
- Nutrition/physical activity
- Chronic disease

Additional sources of data and information used to prepare the Aurora BayCare Medical Center CHNA and considered when identifying significant community health needs:

**Source #4 | Brown County United Way 2-1-1 2012 Annual Report**
2-1-1 is a non-emergency telephone number that connects people with community services and volunteer opportunities. This report summarizes the calls and needs for 2012 in Brown County. The report is available at http://www.browncountyunitedway.org/files/2-1-1/Brown%20County%20Annual%202012.pdf

**Source #5 | Wisconsin Cancer Facts & Figures (2011)**
This report was prepared by the American Cancer Society, with contribution and assistance from the Wisconsin Cancer Reporting System, Wisconsin Office of Health Informatics, Wisconsin Comprehensive Cancer Control Program, and the Wisconsin Well Women Program. The report is available at http://action.acscan.org/site/DocServer/WI_FactsFigures_2010_120710_L9.pdf?docID=19025

**Source #6 | The Burden of Diabetes in Wisconsin (2011)**
This report was prepared by the Wisconsin Diabetes Prevention and Control Program (DPCP). This resource is printed by DPCP partners: American Diabetes Association Wisconsin Area, National Kidney Foundation of Wisconsin and Wisconsin Lions Foundation. The report is available at http://www.dhs.wisconsin.gov/publications/P0/P00284.pdf

**Source #7 | The Burden of Heart Disease and Stroke in Wisconsin (2010)**
This report was prepared by the Wisconsin Heart Disease and Stroke Prevention Program. The report is available at http://www.dhs.wisconsin.gov/publications/P0/P00146.pdf

**Source #8 | The Burden of Injury in Wisconsin (Released Fall 2011)**
This report was developed through a partnership between the Injury Research Center at the Medical College of Wisconsin, Children’s Health Alliance of Wisconsin and The Wisconsin Department of Health Services’ Injury and Violence Prevention Program. This effort was funded in part by U.S. Centers for Disease Control and Prevention grant R49/CE001175 and Cooperative Agreement Award Number U17/CE524815. The report is available at http://www.dhs.wisconsin.gov/publications/P0/P00283.pdf
Section 3 | Significant health needs identified through the Community Health Needs Assessment (CHNA) for Brown 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

| Municipal Health Department Community Health Improvement Plan (CHIP) | “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). http://www.dhs.wisconsin.gov/chip/ |
| Healthiest Wisconsin 2020 | “**Healthiest Wisconsin 2020** 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 HW2020 can be grouped into three categories: crosscutting, health and infrastructure. http://www.dhs.wisconsin.gov/hw2020/pdf/exesummary.pdf |
| Healthy People 2020 | “**Healthy People** provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:
- Encourage collaborations across communities and sectors
- Empower individuals toward making informed health decisions
- Measure the impact of prevention activities” http://www.healthypeople.gov/2020/about/default.aspx |
Summary of the significant health needs identified through the CHNA for Brown County

When available and appropriate, Healthy People 2020 objectives are listed for the health topic.

Access

Oral health | During 2008-2009, 25% of Wisconsin and 20% of Brown County Medicaid and BadgerCare members received a dental service (Source #1)

![Percentage of Medicaid members receiving a dental service 2008-2009](image)

During 2008-2009, Green Bay, Wisconsin was a federally designated dental health professional shortage area (Source #1).

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 cancer and reduce future dental care costs.

Medical care | Based on the Brown County United Way 2-1-1 2012 Annual Report, there were approximately 759 calls for health care. Most common needs included health support services, outpatient health facilities, inpatient facilities and specialty medicine (Source #1). These include callers with unmet medical needs. Note: 2-1-1 is a non-emergency telephone number that connects people with community services.

Based on the 2012 County Health Rankings for Brown County, the ratio of population to primary care physicians in Brown County was 1,301:1. The population per physician ratio was greater for Brown County as compared to the state (1,051:1) and the national benchmark (945:1) (Source #2).

- Note: Primary care physicians include practicing physicians specializing in general medicine, family medicine, internal medicine, pediatrics, and obstetrics/gynecology. The measure represents the population per physician.

---


* The County Health Ranking updated this data on November 1, 2012
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.10

Access to care requires not only financial coverage, but also, access to providers. While high rates of specialist physicians have been shown to be associated with higher, and perhaps unnecessary utilization, sufficient availability of primary care physicians is essential for preventive and primary care, and when needed, referrals to appropriate specialty care.11

Coverage

Health care coverage | Based on the 2012 County Health Rankings for Brown County, 11% of adults are uninsured, same as the state and national benchmark.
- Note: This measure represents the estimated percent of the population under age 65 that has no health insurance coverage (Source #2).
  - 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.12

Chronic disease: cancer, diabetes and heart disease

Cancer | The 2004-2008 cancer incidence rate for Brown County was 458.2 per 100,000, lower when compared to the state (516.0 per 100,000) (Source #2).

Based on the 2011 Wisconsin Cancer Facts & Figures, the 2003-2007 total number of cancer cases for Brown County was 5,317 (all sites). There were 763 cases of prostate cancer, 757 cases of female breast cancer, 599 cases of lung and bronchus cancer, and 538 cases of colon and rectum cancer (Source #5).

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, 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.13 In 2010, cancer was a leading cause of death in Brown County.14

Diabetes | Based on the 2011 Burden of Diabetes in Wisconsin Report, in Brown County, an estimated 16,500 adults (8.7%) of adults have been diagnosed with diabetes, with an estimated 6,140 (3.2%) of adults undiagnosed with diabetes. In Brown County, an estimated 62,970 people aged 20 years or older have pre-diabetes (Source #6).

---

Why is this significant? Diabetes can cause serious health complications including heart disease, blindness, kidney failure and lower-extremity amputations.\(^{15}\)

**Heart disease** Based on the 2010 *Burden of Heart Disease and Stroke in Wisconsin Report*, the 2004-2007 coronary heart disease death rate for Brown County was 118.9 per 100,000, higher compared to the state (115.4 per 100,000). In 2007, the total cost of coronary heart disease in Brown County was estimated at $349,815,068. The total cost includes direct cost, such as health care provider visits, hospital and nursing home services, medication, home care, and indirect cost, such as lost productivity (Source #7).

Why is this significant? The term “heart disease” refers to several types of heart conditions, such as coronary heart disease, which can lead to heart attack, angina, heart failure and arrhythmias. High blood pressure, high cholesterol, obesity and smoking are key risks for heart disease.\(^{16}\) In 2010, heart disease was a leading cause of death in Brown County.\(^{17}\)

**Health risk behaviors: alcohol 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, poor nutrition and lack of physical activity.\(^{18}\)

**Alcohol use** Based on the 2012 *County Health Rankings* for Brown County, 26% of adults engaged in excessive drinking. This was slightly higher compared to the state (24%), but considerably higher compared to the national benchmark (8%) (Source #2).

- Note: Excessive drinking reflects the percent of adults that report either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or 2 (men) drinks per day on average

  - The *Healthy People 2020* goal for adult binge drinking is 24%

From 1993-2009, Wisconsin had an overall average of 25% of 9\(^{th}\) – 12\(^{th}\) graders and 40% of 12\(^{th}\) grade students who reported having five or more drinks of alcohol in a row (within a couple of hours) on one or more of the past 30 days (Source #1). Note: The data was unavailable for Brown County therefore Wisconsin data was used.

**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, drowning), 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.\(^{19}\)

---


Smoking | Based on the 2012 County Health Rankings for Brown County, 20% of adults were current smokers. This was the identical to the state (20%), but higher compared to the national benchmark (14%) (Source #2).

- Note: Adult smoking prevalence is the estimated percent of the adult population that currently smokes every day or “most days” and has smoked at least 100 cigarettes in their lifetime

  - The Healthy People 2020 target is to reduce cigarette smoking by adults to 12.0%

Additionally, in 2010, 13.4% of Brown County mothers indicated smoking during pregnancy. The percent of mothers who indicated smoking during pregnancy was higher for high school graduate mothers as compared to college graduate mothers (23.8% versus 2.5%, respectively) (Source #2).

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

  Why is this significant? Smoking increases the risk of coronary heart disease, stroke and several types of cancer (acute myeloid leukemia, bladder, cervix, esophagus, kidney, larynx, lung, mouth, pancreatic, throat and stomach). 90% of all deaths from chronic obstructive lung disease are caused by smoking. 20 Additionally, 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. 21

Nutrition – access to healthy foods | Based on the 2012 County Health Rankings for Brown County, 7% of the population had limited access to healthy foods. This was slightly higher compared to the state (6%), and higher than the national benchmark (0% of the population had limited access to healthy foods) (Source #2).

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

In 2008, 77.2% of Wisconsin adults and 78.3% of Brown County adults ate less than five servings of fruits and vegetables per day (Source #1).

  Why is this significant? 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. A poor diet can lead to energy imbalance (e.g., eating more calories than one expends through physical activity) and can increase one’s risk for overweight and obesity. Healthy eating helps reduce one’s risk for developing osteoporosis, iron deficiency and dental cavities. 22

---


Physical activity  | Based on the 2012 County Health Rankings for Brown County, 20% of adults had no leisure physical activity. This was slightly lower compared to the state (23%) and national benchmark of (21%) (Source #2).
- Note: Physical inactivity is the estimated percent of adults aged 20 and over reporting no leisure time physical activity

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.  

Health risk factor: overweight/obesity

Adult obesity  | Based on the 2012 County Health Rankings for Brown County, 30% of adults were obese, slightly higher compared to the state (29%) and higher compared to the national benchmark (25%) (Source #2).
- Note: This measure represents the percent of the adult population (age 20 and older) that has a body mass index (BMI) greater than or equal to 30 kg/m

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 and other health conditions.  

Injury

Injury emergency department visits  | In 2010, the injury emergency department visit rate for Brown County was 9,385.2 per 100,000, considerably higher compared to the state (7,380.8 per 100,000) (Source #2).
- The Healthy People 2020 target for injury emergency department rate is 7,533.4 per 100,000

Injury hospitalizations  | In 2010, the injury hospitalization rate in Brown County was 757.6 per 100,000, lower compared to the state (914.9 per 100,000). The average patient age was 56.2, average length of hospital stay was 5.0 days, and average hospital charge was $28,462. The injury hospitalization rate was higher for American Indians as compared to Whites (1,376.2 versus 723.7 per 100,000, respectively) (Source #2).
- The Healthy People 2020 target for injury hospitalizations rate is 555.8 per 100,000

Why is this significant? Injuries, including violence, kill more people ages 1 – 44 in the United States than any other cause. Each year, one in every three adults age 65 and older in the United States falls. Falls can cause moderate to severe injuries, such as hip fractures and head injuries, and can increase the risk of early death. Fortunately, there are prevention strategies to reduce falls and related injuries.  

---

Youth injury | During 2007-2009, there were 581 injury-related hospitalizations and 15,659 injury-related emergency department visits for children and adolescents (0-17 years) in Brown County. From 2007-2009 there were 3,742 injury-related emergency department visits for children or adolescents (0-17 years) being struck (by/against), with an annual rate of 2,084 per 100,000. The category of being “struck by/against” includes injuries resulting from being struck by or striking against objects or persons (Source #5).

**Why is this significant?** Injuries (such as burns, falls, drowning, sport injuries, poisonings and road traffic injuries) are the leading cause of death for U.S. children ages 19 or younger. Sport injuries include concussions, which is a type of traumatic brain injury, or TBI, caused by a bump, blow, or jolt to the head that can change the way your brain normally works. Recognition and proper response to concussions when they first occur can help prevent further injury or even death.27

Suicide | In 2010, there were 29 suicides in Brown County (11.7 per 100,000) (Source #2).

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

**Why is this significant?** Suicide is a serious public health problem that can have lasting harmful effects on individuals, families and communities. While its causes are complex and determined by multiple factors, the goal of suicide prevention is to reduce factors that increase risk and increase factors that promote resilience.29

---


Section 4 | Prioritized significant health needs

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 2013, 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)

Using this criteria, Aurora BayCare Medical Center has prioritized the significant health need areas to address in its implementation strategy:

- Access and coverage
- Physical activity, nutrition and overweight/obesity
- Alcohol and drug use
- Youth injury
- Chronic disease (general and specific focus on cancer and heart disease)
Significant health needs not being addressed in the implementation strategy and the reason:
The implementation strategy does not include specific strategies for adult injury emergency department visits and hospitalizations as prevention and management services are part of the standard continuum of clinical care at Aurora BayCare Medical Center, BayCare Clinics and Aurora Medical Group clinics. However, it is focused on youth injury prevention, specifically sports related injuries.

The Brown County Tobacco Free Coalition is addressing tobacco use by providing educational materials and smoke-free advocacy activities for youth of all ages and adults.

Aurora BayCare Medical Center does not have an inpatient behavioral health unit and works with the Brown County Mental Health Center to refer and treat patients with mental health conditions and suicidal thoughts. Additionally, patients with mental health issues are referred to the North East Wisconsin Community Clinic.

This Community Health Needs Assessment (CHNA) Report was adopted by the Social Responsibility Committee of the Aurora Health Care Board of Directors on December 19, 2013.

To submit written comments about the Community Health Needs Assessment (CHNA) report or request a paper version of the report, click here.
Part III | Aurora BayCare Medical Center Implementation Strategy

Introduction

Responsible stewardship of limited charitable resources: Our not-for-profit role in the community

As an affiliate of Aurora Health Care Inc., the leading not-for-profit healthcare provider in eastern Wisconsin, our purpose is to help people live well. We recognize our role in addressing concerns about the accessibility and affordability of health care in Brown County. Further, we recognize that we are accountable to our patients and communities, and that our initiatives to support our communities must fit our role as a not-for-profit community hospital.

It is not surprising that we are asked to support a wide array of community activities and events in our community. However, today’s community health needs require us to reserve limited charitable resources for programs and initiatives that improve access for underserved persons and specifically support community health improvement initiatives.

The implementation strategies presented here are the result of our process for assessing community health needs, obtaining input from community members and public health representatives, prioritizing needs and consulting with our hospital staff and physician partners. Our strategies are organized into three main categories in alignment with three core principles of community benefit as shown below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Community Benefit Core Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority #1: Access and Coverage</td>
<td>• Access for persons in our community with disproportionate unmet health needs</td>
</tr>
<tr>
<td>Priority #2: Community Health Improvement Plan</td>
<td>• Build links between our clinical services and local health department community health improvement plan (CHIP)</td>
</tr>
<tr>
<td>Priority #3: Hospital focus</td>
<td>• Address the underlying causes of persistent health problems</td>
</tr>
</tbody>
</table>

These implementation strategies do not constitute the entirety of the community benefits our hospital provides each year. A full accounting of our community benefits are reported each year and can be found by visiting: www.aurora.org/commbenefits.

Principal community health improvement tool: Community Partnerships

For any community health concern, it is widely recognized that a diverse team of engaged community partners is essential for implementing strategic community health improvement initiatives that make a difference. Therefore, we recognize the need to be a good community partner. Our implementation strategies strongly reinforce our role as a partner for community capacity-building to address unmet community health needs.

This Community Benefit Implementation Strategy was adopted by the Social Responsibility Committee of the Aurora Health Care Board of Directors on December 19, 2013.
## Access

Based on the Brown County United Way 2-1-1 2012 Annual Report, there were approximately 759 calls for health care. Most common needs included health support services, outpatient health facilities, inpatient facilities and specialty medicine (CHNA Source #1). 2-1-1 is a non-emergency telephone number that connects people with community services.

During 2008-2009, 25% of Wisconsin and 20% of Brown County Medicaid and BadgerCare members received a dental service (CHNA Source #1).

## Coverage

Based on the 2012 County Health Rankings for Brown County, 11% of adults are uninsured, same as the state and national benchmark (CHNA Source #2).

- The Healthy People 2020 target for health care coverage is 100%
To improve coverage for uninsured and Medicaid-eligible patients using our hospital ED for primary care, we will:
- Actively screen all uninsured patients for financial assistance programs, including Aurora’s Helping Hand Patient Financial Assistance program, and other safety net programs for which they qualify, and assist with application processes
- Through our specially trained financial advocates, inform and educate all uninsured patients at our hospital about the benefits of securing coverage through the Marketplace (the health insurance exchange) and provide assistance as needed

To support the pediatric clinic in Green Bay’s Nicolet School, we will:
- Continue to provide the full-time, bilingual pediatrician who provides medical care for children whose families do not have the resources to pay for health services

To improve access and linkage to community resources for at-risk children, we will:
- Continue to participate in and support the United Way collaborative to develop a database to improve the community health information system so that children (and families) at risk can be effectively identified and connected with resources already available for them in Green Bay

To address unmet oral health needs and reduce the number of oral health-related ED visits by adults, we will:
- Designate an Aurora caregiver to actively serve on the Brown County Health Department oral health action group to support the following efforts:
  - Educate children and adults on the importance of oral care and prevention
  - Provide an oral health kit (brochure, toothpaste and toothbrush) and educate patients on regular oral health care
  - Recruit and partner with an oral surgeon who can provide intensive oral health services and care for patients with dental emergencies

Intended impact
- A demonstrable increase in “health home” capacity and utilization by underserved populations (low-income individuals who are uninsured and ineligible for health care coverage, such as Medicaid)
- Improved access to medical care for children whose families cannot afford health services
- The United Way collaborative coordinated information system database of at-risk children is developed
- Uninsured persons seeking primary and dental health care in our ED will:
  - Understand the benefits of obtaining primary care services in a “health home”
  - Successfully transition to N.E.W. Community Clinic, BayCare Clinic or AMG for primary care
  - Receive referrals for dental and behavioral health services
  - Obtain affordable health insurance coverage

Measures to evaluate impact
- Baseline data on the number of patients (specifically Medicaid-eligible and uninsured) using our ED for primary care; of these patients percent uninsured, Medicaid-eligible and frequent users of the ED
- Number of referrals to a primary care provider (N.E.W. Community Clinic, BayCare Clinic and AMG) for follow-up care
- Number of children seen at the Nicolet School pediatric clinic
- Number of at-risk children referred for services
- Number of oral health kits distributed
- Number of uninsured persons screened and enrolled in financial assistance programs or the Marketplace (the health insurance exchange)
Based on the 2012 County Health Rankings for Brown County (CHNA Source #2):
- 7% of the population had limited access to healthy foods. This was slightly higher compared to the state (6%), and higher than the national benchmark (0% of the population with limited access to healthy foods)
- 20% of adults had no leisure physical activity. This was slightly lower compared to the state (23%) and national benchmark of (21%)
- 30% of adults were obese, slightly higher compared to the state (29%) and higher compared to the national benchmark (25%)

Focus | Physical activity, nutrition and overweight/obesity

Principal partners
- Aurora Medical Group
- BayCare Clinic

Community partners
- Area school districts
- Boys & Girls Club of Green Bay
- Brown County Health Department
- City of Green Bay
- Greater Green Bay YMCA
- Green Bay Area Chamber of Commerce
- Live54218
- New Leaf Foods
- University of Wisconsin-Green Bay

Target population
- Children, adolescents and adults residing in Brown County
- Our patient population

What we will do
To increase the opportunities for Green Bay and Brown County residents to engage in physical activity and live a healthier lifestyle, we will:
- Actively participate and financially support Live54218, a community obesity prevention initiative for an initial three year start-up period
- Provide our patients with information and resources to improve physical activity and nutrition habits and achieve and maintain a healthy weight
- Organize, market and financially support the “2nd Annual Open Streets Green Bay” initiative, which provides 2.5 miles of open street access for residents to engage in physical activity and explore many of the streets in Green Bay on foot or bicycle that otherwise can only be traveled by car. Participants can also be involved in health screenings and receive information on a variety of health and wellness topics
- Sponsor and host the Spooky Sprint, a 5K run/walk, with proceeds going to the Strong Kids Campaign. The Strong Kids Campaign provides a YMCA membership to families facing economic challenges
- Designate an Aurora caregiver to actively serve on the Brown County and City of De Pere Health Department nutrition action group to support their efforts to implement activities outlined in the Brown County and City of De Pere Community Health Improvement Plans

Intended impact
- Increased opportunities for residents to engage in physical activity
- Improved awareness and knowledge of ways to improve physical activity and nutrition and achieve and maintain a healthy weight
Measures to evaluate impact

- Number of Live54218 meetings/events attended by Aurora caregiver(s)
- Number of participants in Open Streets Green Bay
- Number of participants in Spooky Sprint 5K
- Measures tracked by the Brown County and City of De Pere Community Health Improvement Plan
Based on the 2012 County Health Rankings for Brown County, 26% of adults engaged in excessive drinking. This was slightly higher compared to the state (24%), but considerably higher compared to the national benchmark (8%) (CHNA Source #2).

Healthy Brown County 2020
Alcohol & Other Drug Task Force Strategic Plan - Vision Statement
To positively impact the culture surrounding unhealthy alcohol use in Brown County and De Pere through a community-wide partnership among individuals, families, and organizations.

Focus | Addressing unhealthy alcohol and drug use

Principal partners
- Aurora Medical Group
- BayCare Clinic

Community partners
- Brown County Health Department, alcohol and drug action group
- Aging & Disability Resource Center
- Bellin Care Management
- Bellin Medical Center
- Bellin Psychiatric Center
- Libertas Treatment Center
- N.E.W. Community Clinic
- Prevea Behavioral Health

Target population
- Primary care providers in Brown County
- Patients over 18 years of age

What we will do
To support the Healthy Brown County 2020 alcohol and other drug use action group plan to address excessive alcohol use in Brown County, we will:
- Designate an Aurora caregiver to serve on the alcohol and drug use action group to support community efforts to:
  - Implement an alcohol, depression and substance abuse screening tool among the primary care population (patients over the age of 18) in 2014
  - Coordinate resources and create an easy access resource network for providers
  - Support legislative intervention that will positively impact the reduction of alcohol abuse and binge drinking

Intended impact
- The alcohol, depression and substance abuse screening tool will be successfully implemented
- A community-wide resource network for health care providers to access post screening will be packaged and available

Measures to evaluate impact
- Number of AMG and BayCare Clinic primary care physicians who implemented the alcohol, depression and substance abuse screening tool
- Resource network available and accessible; number of health care providers who access network per month
From 2007-09 there were 3,742 injury-related emergency department visits for children or adolescents (0-17 years) being struck (by/against), with an annual rate of 2,084 per 100,000. The category of being “struck by/against” includes injuries resulting from being struck by or striking against objects or persons (CHNA Source #4).

The Wisconsin Interscholastic Athletic Association and Wisconsin law clearly identify that the risk and prevalence of concussion and head trauma is significant, and the role of health care professionals as it relates to injury prevention/detection efforts within the community organizations.

Focus | Youth injury prevention

Principal partners
- Aurora Medical Group (AMG)
- BayCare Clinic
- Aurora Sports Medicine Institute (ASMI)

Community partners
- Local school systems in Green Bay, Denmark, Mishicot, Two Rivers and Reedsville
- Green Bay YMCA

Target population
- Brown County residents
- Students and coaches within Northeast Wisconsin school systems

What we will do
To support our communities and assure the safety of youth and student athletes, we will:
- Partner with area school systems and community athletic organizations to offer:
  - Reduced-cost youth sports physicals (proceeds donated back to the school athletic programs)
  - Free baseline concussion screenings
  - Functional movement assessments and recommendations for training (as appropriate)
  - Licensed athletic trainer and physician support for home football games
- Partner with AMG and BayCare Clinic staff for a consistent approach to post-concussion injury management
- Partner with the Green Bay YMCA to provide free health screenings and injury assessments by our ASMI licensed athletic trainers

Intended impact
- Youth injury prevention, identification and intervention is improved
- Student athletic injuries are successfully diagnosed, treated and rehabilitated

Measures to evaluate impact
- Number of athletic trainer assessments at schools
  - Number of baseline concussion screenings
  - Number of youth sports physicals
- Number of health screenings and injury assessments at the Green Bay YMCA
Based on the *2011 Burden of Diabetes in Wisconsin Report*, in Brown County an estimated 16,500 adults (8.7%) of adults have been diagnosed with diabetes, with an estimated 6,140 (3.2%) of adults undiagnosed with diabetes. In Brown County, an estimated 62,970 people aged 20 years or older have pre-diabetes (CHNA Source #6).

Based on the *2011 Wisconsin Cancer Facts & Figures*, the 2003-2007 total number of cancer cases for Brown County was 5,317 (all sites). There were 763 cases of prostate cancer, 757 cases of female breast cancer, 599 cases of lung and bronchus cancer, and 538 cases of colon and rectum cancer (CHNA Source #5).

Based on the *2010 Burden of Heart Disease and Stroke in Wisconsin Report*, the 2004-2007 coronary heart disease death rate for Brown County was 118.9 per 100,000, higher compared to the state (115.4 per 100,000) (CHNA Source #7).

**Focus | Chronic disease (including cancer, diabetes, heart disease and inflammatory bowel disease)**

**Principal partners**
- Aurora Medical Group (AMG)
- BayCare Clinic
- Aurora Cancer Care
- Vince Lombardi Cancer Clinic

**Community partners**
- Aging & Disability Resource Center of Brown County
- Wisconsin Department of Health and Human Services
- American Cancer Society
- American Heart Association Go Red
- Crohn’s & Colitis Foundation of Green Bay

**Target population**
- Adults of any age with one or more chronic disease(s)
- Breast cancer patients facing economic challenges
- The broader population of northeast Wisconsin and upper Michigan (heart disease)
- Children and adults with inflammatory bowel disease (Crohn’s disease or colitis) and healthcare providers

**What we will do**
*To improve self-efficacy of persons in our community living with chronic disease(s) we will:*

**Chronic diseases (multiple)**
- Promote and present *Living Well with Chronic Disease*, Wisconsin’s implementation of the evidence-based Stanford Chronic Disease Self-Management Program
- Provide workshops facilitated by nurses specially trained through the state to implement the program at the local level. Each 2.5-hour session in the six-week program will cover:
  - Techniques to deal with frustration, fatigue, pain and isolation
  - Appropriate exercise for maintaining and improving strength, flexibility and endurance
  - Appropriate use of medications
  - Communicating effectively with family, friends and health professionals
  - Nutrition
  - Understanding and evaluating new treatments
For diabetes

- Promote, refer patients to and co-facilitate Living Well with Diabetes, a program for people newly diagnosed with type 2 diabetes

For cancer

To help the broader community understand and identify risk factors and early detection of cancer, we will:

- Provide financial support and distribute cancer prevention educational material at Making Strides Against Breast Cancer and Runway for Life events and provide cancer expert speakers for Making Strides event
- Provide cancer screenings and educational sessions at a variety of community venues and events
- Coordinate and provide financial assistance for those women who are age or risk eligible and who are unable to cover the cost of screening mammograms. Note: This is coordinated through our financial advocates

For heart disease

To help the broader community understand and identify risk factors for heart disease and stroke, we will:

- Partner with the American Heart Association to provide financial, staffing and/or in-kind support for a wide range of educational and outreach events reaching defined populations as well as the broader community, including two Go Red for Women events and the American Heart Association Heart Walk
- Provide education on the risk factors, early warning signs of heart attack and stroke
- Promote and financially support the Go Red Campaign and provide participants with information on heart disease

For Inflammatory Bowel Disease (Crohn’s disease and colitis)

- We will continue our longstanding support for the Crohn’s & Colitis Foundation of Green Bay by:
  - Providing presentations to patients and healthcare providers on Inflammatory Bowel Disease (IBD) and nutrition choices for children and adults
  - Sponsoring the 2014 walk on our campus to raise funds to advance research and seek better treatment options for individuals with Crohn’s disease and colitis (IBD)

Intended impact

- Improved health status and positive self-care behaviors for individuals with chronic disease (e.g. heart disease, asthma, diabetes, IBD) who enroll in or participate in programs
- Raise awareness of breast cancer prevention, diagnosis and treatment; increase in screenings
- Raise awareness and increase knowledge of the prevention, risk factors and early warning signs for heart disease and stroke
- Increase awareness of, and knowledge about, IBD

Measures to evaluate impact

- Number of participants enrolled in Living Well with Chronic Disease
  - Number of participants who complete all six sessions; type of chronic condition(s) addressed
  - Percent improvement (baseline to post six-months) on health status, self-efficacy, self-management behaviors and health care utilization
- Number of participants enrolled in Living Well with Diabetes
- Number of participants in Making Strides Against Breast Cancer Walk
- Number of cancer screenings and educational sessions; number of people reached
- Number of individuals participating in Go Red for Women and the American Heart Association Heart Walk
- Number of heart health education sessions; number of people reached
- Number of presentations on IBD and nutrition choices for children and adults; number of participants (patients and providers)
Focus | Primary care and rural medicine

Principal partner
- Aurora Medical Group
- BayCare Clinic

Academic partner
The Wisconsin Academy for Rural Medicine (WARM) is a program of the University of Wisconsin School of Medicine and Public Health created to proactively address the current shortage of rural physicians in the state and enhance health care in rural communities. Aurora BayCare Medical Center is an academic affiliate of the UW School of Medicine and Public Health and is part of the school's statewide campus. It is one of three regional sites participating in the program, along with Marshfield Clinic and Gundersen Lutheran in La Crosse.

Target population
- WARM students who have completed the first two years in Madison and are relocating to the Aurora Baycare Medical Center area to complete the clinical requirements in a rural learning community (during years three and four)

What we will do
To address the shortage of physicians in rural communities and the unmet health care needs of rural residents, we will:
- Continue to serve as a learning site for University of Wisconsin WARM (Wisconsin Academy of Rural Medicine) third- and fourth-year medical students, with affiliated practices and coordination at distant sites for elective rotations in:

<table>
<thead>
<tr>
<th>Note: Primary care physicians include practicing physicians specializing in general medicine, family medicine, internal medicine, pediatrics, and obstetrics/gynecology. The measure represents the population per physician.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a geographic shortage and misdistribution of physicians that affects rural Wisconsin. While 28% of Wisconsin citizens live in rural areas, only 11% of physicians have rural practices.</td>
</tr>
<tr>
<td>This shortage of rural physicians is projected to increase. As current rural physicians retire and as the population ages, there will be a need for more physicians. Further, literature shows that rural citizens are generally sicker, poorer, older and more likely to be uninsured.</td>
</tr>
</tbody>
</table>

---

30 The County Health Ranking updated this data on November 1, 2012
- Anesthesiology, internal medicine, neuroscience, OB/GYN, pediatrics, primary Care, radiology, surgery, and other core (e.g. emergency department) and elective (critical care) clinical experiences
  - Provide elective and core rotations for University of Wisconsin traditional medical students

**Intended impact**
- Prepare and encourage medical students to choose medical careers in primary care and rural medicine

**Measures to evaluate impact**
**2014 measures**
- Percent of our WARM students who go on to post-graduate medical education programs in primary care
- Standardized examination results (based on national and University of Wisconsin measures) and based on the students’ own evaluations

**Future measures**
- Overall number of UW students who spent any time at ABMC and who train in Wisconsin who return to Wisconsin to practice
- Through our substantial contact with them, we expect 80% of the first class to practice in Wisconsin

**Focus | Healthcare workforce development (physicians, nurses and emergency medical services providers)**
Recent reports from the Wisconsin Hospital Association, the Association of American Medical Colleges, and the Wisconsin Office of Rural Health have projected significant shortages of physicians in the coming decades, particularly in the primary care fields and in underserved rural and urban areas. For more information about the Medical College of Wisconsin’s Community Medical Education Program in Green Bay, visit [http://www.mcw.edu/The-Future-is-Now/FAQ-MCW-Community-Medical-Education-Program.htm](http://www.mcw.edu/The-Future-is-Now/FAQ-MCW-Community-Medical-Education-Program.htm).

**Principal partners**
- Aurora Medical Group
- BayCare Clinic

**Academic Partner**
- The Medical College of Wisconsin (MCW) is committed to developing an expanded medical education program which both addresses the need for primary care physicians in underserved communities across the state and employs an innovative teaching model to prepare medical students to face the challenges of our rapidly evolving, 21st century health care environment.

**Community partners**
- Bellin College
- College of Menominee
- Rasmmussen College
- Northeast Wisconsin Technical College
- St. Nobert College
- University of Wisconsin-Green Bay
- University of Wisconsin-Oshkosh Lakeshore Technical College
- Veteran’s Administration

**Target populations**
- Area high school and undergraduate students
- Nursing students
- Emergency Medical Services (EMS) providers
What we will do

To support the development of the Medical College of Wisconsin (MCW) Community-based Medical School, we will:

- Continue to provide financial support for the development of the MCW Community-based Medical School in Green Bay, Wisconsin
- Serve on the Community Medical Education Board (CMEB)
- Continue to collaborate and develop a work plan to establish residencies in Green Bay in primary care, psychiatry (supported slots from the VA), general surgery and other specialties
  - Note: An MCW-funded consulting evaluation is in preparation to help us focus and finalize the project

To continue to provide undergraduate medical education, we will:

- Support the MCW Community-based Medical School in recruiting the very best students from the local college campuses and from other similarly situated undergraduate schools to attract future physicians who will:
  - Focus on primary care in community-based settings
  - Practice in Green Bay and rural Wisconsin
- Work with the MCW community-based medical school dean to encourage local high school students to look to and work toward a career in medicine
- Work collaboratively within the community to provide didactic and clinical education for community-based medical students, including the opportunity to experience practice in both community and more rural environments
- Establish local post-graduate residencies in primary care, general surgery and psychiatry, and eventually obstetrics and gynecology, emergency medicine and internal medicine, that will attract post-graduates who will:
  - choose MCW’s Green Bay Campus and
  - return to practice medicine in Greater Green Bay community and affiliated rural locations

To improve educational and training opportunities for nurses and emergency services providers, we will:

- Provide learning opportunities for nursing students and identify resources for a simulation lab
- Provide scholarships for paramedics, in partnership with Board Certified Emergency Physicians, to offer each spring and fall semester:
  - (2) $500 EMT scholarships
  - (1) $500 advanced EMT scholarship and
  - (2) $1,000 paramedic scholarships
  - Note: Scholarships are selected for Northeast Wisconsin Technical College and presented at the spring and fall EMS Huddle through a selection process
- Host an EMS Huddle including dinner and a guest speaker for Emergency Medical Technicians (EMTs) from the surrounding area, with presentations based on educational needs identified in previous huddle evaluations

Intended impact

- By adding residency education (the most reliable predictor of future practice location choice) we expect to capture a substantial number of new physicians practicing in the Greater Green Bay community and its affiliated rural locations
- Contribute to the local training of the Emergency Medical Systems teams by supporting students in the EMT and paramedic programs at the local college (Northeast Wisconsin Technical College) through financial support to those demonstrating financial need
- The addition of a medical school in Green Bay will, as it has done in other communities across the United States, provide a substantial economic boost to the community
Measures to evaluate impact

- Number of nurses involved in educational opportunities; stimulation funding secured
- Work plan to establish residencies in Green Bay in primary care, psychiatry (supported slots from the VA), general surgery and additional specialties are developed and approved
- Percent of scholarship recipients who remain in surrounding communities
- Evaluations by attendees and percent turnout for local and surrounding EMS personnel

Future measure

- Number of students who go on to post-graduate medical education programs (residencies) in primary care
2010-2011 Brown County and De Pere Health Departments Community Health Improvement Plan (CHIP) Overview

How did we get here?
In the summer of 2010, the CHIP Steering Committee brought together a broad array of community stakeholders. The stakeholders’ purpose was to attend community partner meetings, review community health data, and provide their community knowledge and expertise in relationship to the Healthiest Wisconsin 2020 health focus areas. They assessed the community by identifying community strengths, existing resources, and gaps. The following health priorities were identified:

- Adequate, Appropriate and Safe Food and Nutrition
- Oral Health
- Unhealthy Alcohol and Drug Use

What’s Next?
This Community Health Improvement Plan is a partnership among individuals, families and organizations dedicated to improving the health of the Brown County and De Pere communities. These action planning groups consisting of diverse community members will meet regularly to develop a health plan with goals and objectives for each health priority listed above. The CHIP Steering Committee will meet to review the progress of the implementation teams. Completion of the health plan is anticipated in 2012.

Partners:
Aging & Disability Resource Center, Sunny Archambault
Bay Area Community Council, Pat Fiedler-Stone
Bellin College, Kathy DeMuth, Lori Kulju
*Bellin Health, Jody Wilmot
Bellin Health, Linda Koethe
Brown County Board, Mike Fleck
Brown County Board of Health, Audrey Murphy
Brown County Community Treatment Center, Mary Johnson
Brown County Cooperative Extension, Judy Knudsen
*Brown County Health Department, Judy Friederichs
Brown County Human Services, Kevin Lunog
Brown County Planning, Chuck Lamime
*Brown County United Way, Stephanie Foley
Center for Childhood Safety/Safe Kids Greater Green Bay, Justine Lodl
City of De Pere Board of Health, Pat Fiedler-Stone
*City of De Pere Health Department, Mary Dorn
De Pere Area Chamber of Commerce, Cheryl Districk
*Division of Public Health Northeast Regional Office, Rebecca Haw kter
*Division of Public Health Northeast Regional Office, Lynn Hrabik
Greater Green Bay Community Foundation, Martha Ahrendt
Greater Green Bay YMCA, Sandy Atkins
Green Bay Chamber of Commerce, Nan Nelson, CCE
Homeless Population Representative, Seth Moore
N.E.W. Community Clinic, Bonnie Kuhr
NWTC Health Science, Kay Tupala, Dean
Oneida Tribe of Indians, Michelle Myers
Parish Nurse, Katie Dykes
Law Enforcement Representatives-Chiefs group, Randy Schultz
*St. Vincent/St Mary’s Hospitals, Heidi Salberg
St. Willebrord Parish, Maria Plascencia
School Resource Officers-Superintendents group, Barb Natelle
The Salvation Army, Rebecca Lesperance
UWGB-Environmental Sciences, Thomas Erdman
UW-Green Bay Nursing Program, Chris Vandenbouten
Women, Infant and Children (MIC), Bonnie Kuhr
*Steering Committee Members

For more information, contact:
Judy Friederichs, Brown County Health Department: 920.448.6404
Mary Dorn, City of De Pere Health Department: 920.339.4054
Adequate, appropriate and safe food nutrition

**Wisconsin Dietary Habits**
77.2% of WI adults and 78.3% of Brown County adults eat LESS than 5 servings of fruits and vegetables per day. Brown County ranks 42 of 72 counties in % who eat the recommended amount (5 or more). Source: 2008 WI County Health Rankings

The counties are shaded, with lighter counties having more people with nutritious dietary habits. Gray counties are not reported (NR).

**Oral Health**

**Medicaid Members Receiving a Dental Service**
25% of Wisconsin and 20% of Brown County Medicaid and BadgerCare members received a dental service.

Source: 2008-2009 WI Division of Health Care Access and Accountability

**Federally Designated Dental Health Professional Shortage Areas**

Green Bay, WI is a federally designated dental health professional shortage area.

**Wisconsin’s Head Start Children with Caries Experience, Untreated Decay and Early Childhood Caries**

22% of Head Start population in NEWI have early childhood caries.

Source: Wisconsin Department of Health Services, Healthy Smiles for a Healthy Head Start

**Alcohol and Other Drug Use**

**Binge Drinking in Brown County**
Binge drinking is a risk factor for adult alcohol abuse. 22.2% of Wisconsin and 27% of Brown County adults report binge drinking (6 or more drinks on one occasion). In 1990, CDC ranked WI 1st in the nation for binge drinking. Source: 2010 County Rankings

**Wisconsin High School Binge Drinking Survey**
Wisconsin has an overall average of 25% of 9th-12th graders and 40% of 12th graders who reported that they binge drank. 1993-2009 WI Youth Behavioral Risk Factor Survey

**Number of Wisconsin Residents per Liquor License**
There are 343 Wisconsin residents and 396 Brown County residents per liquor license. Compared to other counties in the state, Brown County is in the lowest quartile. Source: 2003 WI Department of Transportation, WI Alcohol Traffic Facts Book.

**Wisconsin High School Drinking and Driving Survey**
An overall average of 24% of 9th-12th graders and 30% of 12th graders reported that they rode one or more times during the past 30 days in a car or other vehicle driven by someone who had been drinking alcohol. 1993-2009 WI Youth Behavioral Risk Factor Survey

**Percentage of students who rode one or more times during the past 30 days in a car or other vehicle driven by someone who had been drinking alcohol.**
Appendix B | Brown County Health Data Report: A summary of secondary data sources (2012) (Source #2)
The report is available at www.aurora.org/commbenefits

Data Collection & Analysis: In spring 2012, 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 Brown County.

Publicly available data sources used for the Secondary Data Report

<table>
<thead>
<tr>
<th>Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American FactFinder and American Community Survey</strong></td>
<td>American FactFinder 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 how communities are changing. ACS collects and produces population and housing information every year, and provides single and multi-year estimates. <em>Source: United States Department of Commerce, US Census Bureau</em></td>
</tr>
<tr>
<td><strong>Wisconsin Interactive Statistics on Health (WISH)</strong></td>
<td>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. <em>Source: Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics</em></td>
</tr>
<tr>
<td><strong>County Health Rankings &amp; Roadmaps</strong></td>
<td>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). <em>Source: Collaboration of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.</em></td>
</tr>
</tbody>
</table>

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. 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:** The secondary data report was sponsored by Aurora Health Care. The report was prepared by the Center for Urban Population Health.
Appendix C | Key Informant Interview Summary for Brown County

Data Collection and Analysis: In 2013, two key informant interviews were conducted. These individuals were selected based on the following criteria:

- Provided a broad interest of the community and the health needs in Milwaukee County, as well as the local municipalities within Milwaukee 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 the health officer for Brown County Health Department and the administrator of the North East Wisconsin Community Clinic. These organizations focus on a range of public health issues and health disparities, 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

<table>
<thead>
<tr>
<th>Organization</th>
<th>Description of the organizations</th>
<th>The description is based on information provided on the organization’s website, accessed November 20, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown County Health Department</td>
<td>The purpose of the Brown County Health Department is to “encourage and promote individual and community health and well-being for persons who live, work or visit in Brown County.” The Brown County Health Department, in collaboration with community partners, accomplishes its mission by “providing services relating to: communicable disease surveillance and control, prevention of chronic disease/disability, maternal/child health promotion, school health, management of environmental hazards, licensing and inspection visits, laboratory services, and preparation for emergency situations in our community.” Additional public health services include “advocating for sound public health policy to promote optimal health and well-being of individuals and the environment.”</td>
<td></td>
</tr>
<tr>
<td>North East Wisconsin Community Clinic</td>
<td>The North East Wisconsin Community Clinic provides quality care to the hard-working, low-income and uninsured people of Brown County. N.E.W. administers twelve programs including W.I.C., Healthcare for the Homeless and two school nurses and one pediatrician at four at-risk elementary schools. Opened in July of 1971 under the name of the Green Bay Area Free Clinic as a social work project of a University of Wisconsin-Green Bay student, the clinic now has three sites. The main, central location and the outreach clinic for the homeless are located in downtown Green Bay, with the second main site located on the Northeast Wisconsin Technical College campus. The clinic provides services to uninsured, low-income individuals and families, and minority populations.</td>
<td></td>
</tr>
</tbody>
</table>

The key informant interviews were conducted by Aurora Health Care. The interviewers used a standard interview script that included the following elements:

1) Each key informant was asked to rank order the top 3 to 5 major health-related issues for Milwaukee County, which is based on the focus areas presented in Wisconsin’s State Health Plan, Healthiest Wisconsin 2020.

2) 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, and key groups in the community that hospitals should partner with to improve community health. Healthiest Wisconsin 2020 focus areas include alcohol and drug, chronic disease, communicable disease, environmental and occupational health, growth and development, mental health, nutrition, oral health, physical activity, reproductive & sexual health, tobacco, access, and injury and violence.
This summary presents the top five health issues in Brown County and potential resources and partnerships to address each of the community health issues.

Community assets, potential resources and partnerships identified through the CHNA (key informants) for the top five issues that emerged as key health priorities for Brown County

<table>
<thead>
<tr>
<th>The top five health issues that emerged as key priorities for Brown County:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Alcohol and drugs</td>
</tr>
<tr>
<td>• Mental health</td>
</tr>
<tr>
<td>• Oral health</td>
</tr>
<tr>
<td>• Nutrition/physical activity</td>
</tr>
<tr>
<td>• Chronic disease</td>
</tr>
</tbody>
</table>

Key community partners to address community health issues:

**Mental health and alcohol and drugs**: American Foundation of Counseling, Brown County and City of De Pere Health Departments Community Health Improvement Plan unhealthy alcohol and drug use action group, Brown County Mental Health Center, Churches, City of Green Bay City Council, Green Bay Packers, Health care systems, Brown County Heroin Task Force, North East Wisconsin Community Clinic, Northeast Wisconsin Technical College, and OWI (operating while intoxicated) Task Force

**Oral health**: Brown County and City of De Pere Health Departments Community Health Improvement Plan oral health action group, Health care systems, North East Wisconsin Community Clinic, Northeast Wisconsin Technical College, Oral Surgeons and the Wisconsin Dental Association

**Nutrition/physical activity**: Brown County and City of De Pere Health Departments Community Health Improvement Plan nutrition action group, City and metro planning department, Farmers Markets, Food pantries, Green Bay Packers, Health care systems, North East Wisconsin Community Clinic, Northeast Wisconsin Technical College, and Women, Infant and Children (WIC) program, YMCA and Live54218