2019 Community Health Needs Assessment Report

A SHARED COMMUNITY HEALTH NEEDS ASSESSMENT

Aurora St. Luke's Medical Center • Aurora St. Luke's South Shore
Aurora Sinai Medical Center • Aurora West Allis Medical Center
Aurora Psychiatric Hospital

Aurora Health Care® | We are AdvocateAuroraHealth™

aurora.org

Table of Contents

Introduction

About Advocate Aurora Health..... 3
Advocate Aurora Milwaukee County Hospitals..... 3
Municipal Health Department Partners..... 4
Map of Advocate Aurora Milwaukee County Hospitals..... 5

Review of the 2016 Community Health Needs Assessment and 2017-2019 Implementation Strategy

Needs Identified and Priorities Selected in 2016 CHNA..... 6
Summary of Implementation Programs and Key Accomplishments..... 7-8
Input from the Community..... 8
Lessons Learned..... 8

2019 Community Health Needs Assessment

Acknowledgements..... 9
Our Community..... 9-10
Health and Health Care..... 10
Community Demographics..... 11-17
Methodology Used for the 2019 Community Health Needs Assessment Report..... 18-19
Summary of Findings..... 20-52
Prioritization of Health Needs..... 53
Approval of CHNA by Governing Body..... 54
Community Resources and Assets..... 54
Community Feedback Mechanism..... 54

Appendices

Appendix A: Milwaukee County Community Health Survey Report..... 55
Appendix B: Health Compass Milwaukee..... 56
Appendix C: Milwaukee County Health Needs Assessment: A summary of key informant interviews..... 57-61
Appendix D: Milwaukee County Community Health Survey Report Summary: 2018..... 62-67
Appendix E: Hanlon Method for Prioritizing Health Problems..... 68-69
Appendix F: Evaluation of Impact Aurora St. Luke's Medical Center (ASLMC)..... 70-78
Appendix G: Evaluation of Impact Aurora St. Luke's South Shore (ASLSS)..... 79-82
Appendix H: Evaluation of Impact Aurora Sinai Medical Center (ASMC)..... 83-88
Appendix I: Evaluation of Impact Aurora West Allis Medical Center (AWAMC)..... 89-94
Appendix J: Evaluation of Impact Aurora Psychiatric Hospital (APH)..... 95-97

Introduction

About Advocate Aurora Health

Advocate Aurora Health is among the 10 largest not-for-profit, integrated health systems in the United States and a leading employer in the Midwest with more than 70,000 team members, 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. Advocate Aurora is engaged in hundreds of clinical trials and research studies, and is nationally recognized for its expertise in cardiology, neurosciences, oncology and pediatrics. Advocate Aurora Health contributed $2 billion in charitable care and community health services to its communities in 2018. To learn more, visit aah.org.

Advocate Aurora Milwaukee County Hospitals

Five Advocate Aurora hospitals are located in Milwaukee County. They are:

- **Aurora St. Luke's Medical Center (ASLMC)** – This quaternary hospital is known for remarkable treatment options and experienced specialty doctors practicing at the forefront of their fields. It provides advanced care and is the pioneer for numerous new procedures and technologies. Aurora St. Luke's Medical Center earned its reputation as Wisconsin's leading medical center and is a national destination hospital for highly specialized care in the areas of heart and vascular, neuroscience, cancer, organ transplant, orthopedics and gastroenterology. ASLMC owns and operates Aurora Walker's Point Community Clinic, the largest free clinic in the state.

- **Aurora St. Luke's South Shore (ASLSS)** – Serving the southeast corner and municipalities of Milwaukee County, this full-service community-centered hospital serves provides a full spectrum of medical and surgical care, inpatient and outpatient behavioral health services, and 24/7 emergency care.

- **Aurora Sinai Medical Center (ASMC)** – Milwaukee's last remaining hospital in the heart of the City of Milwaukee, Aurora Sinai serves the north and north western municipalities in Milwaukee County and well beyond. Aurora Sinai is regionally recognized for outstanding services in orthopedics and bariatric surgery, and exceptional care for women and infants, including neonatal intensive care and maternal addiction recovery. Additionally, this hospital is nationally recognized for its Acute Care for the Elderly (ACE) unit, which works to decrease the risk of functional decline that sometimes occurs during hospitalization of patients who are frail or have memory loss. Additionally, this hospital has provided emergency care, counseling, emotional support and forensic nursing for more than 30 years for survivors of sexual assault.

- **Aurora West Allis Medical Center (AWAMC)** – Uniquely positioned and embedded within the second-largest city within Milwaukee County, this hospital offers a complete range of inpatient, outpatient and emergency care programs, as well as the Aurora Women's Pavilion, where women at all stages of life receive comprehensive, respectful care in a relaxed, healing environment. AWAMC's birthing center delivers more babies than any other healthcare provider in the state and includes a Level III Neonatal Intensive Care Unit.

- **Aurora Psychiatric Hospital (APH)** – This innovative hospital has been providing quality behavioral health care and behavioral health services since 1884. People of all ages are served with a full continuum of inpatient and residential behavioral health care and addiction-recovery programs, with transitional and outpatient offerings during the day and evenings. Aurora Psychiatric Hospital (APH) also hosts Kradwell School, one of Southeastern Wisconsin's only specialty schools for children and adolescents who have behavioral health issues

Municipal Health Department Partners

Since 2003, Aurora Health Care has partnered with local health departments in its service area, including those within Milwaukee County, to survey residents on their health status and habits. This helps the health departments to focus their resources on population health issues and enables us to align our charitable resources and expertise to respond to identified community health priorities. As a specialty hospital and outpatient service provider, APH is a resource to all municipal health departments in Milwaukee County and beyond.

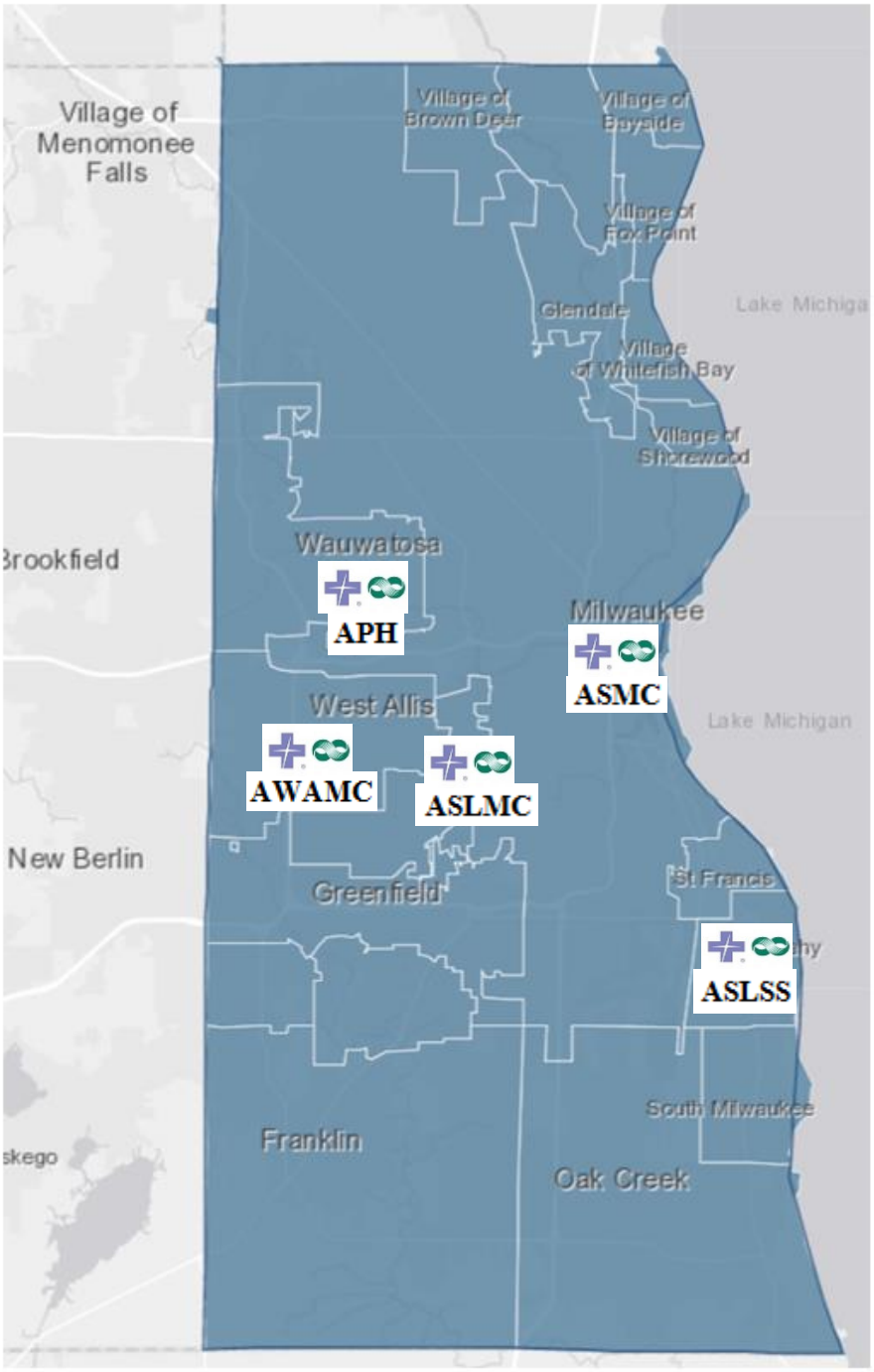
How Advocate Aurora's five Milwaukee County Hospitals align with local health departments in Milwaukee County

	ASLMC	ASLSS	ASMC	AWAMC	APH
City of Milwaukee Health Department	✓		✓		✓
Cudahy Health Department		✓			✓
Franklin Health Department	✓				✓
Greendale Health Department	✓				✓
Greenfield Health Department	✓				✓
Hales Corners Health Department	✓				✓
North Shore Health Department			✓		✓
Oak Creek Health Department		✓			✓
St. Francis Health Department		✓			✓
South Milwaukee Health Department		✓			✓
Wauwatosa Health Department			✓		✓
West Allis-West Milwaukee Health Department				✓	✓

This report briefly reviews our 2016 Community Health Needs Assessment (CHNA) reports and provides detailed summary of our 2019 CHNA report, which applies to ASLMC, ASLSS, ASMC, AWAMC and APH.

To view the community health surveys dating back to 2012, visit aurora.org/commresearch. To view community health surveys prior to 2012, visit aurora.org/commresearch and select "Contact Us" to submit your request.

Map of Advocate Aurora Milwaukee County Hospitals



Key:

ASLMC: Aurora St. Luke's Medical Center

ASLSS: Aurora St. Luke's South Shore

ASMC: Aurora Sinai Medical Center

AWAMC: Aurora West Allis Medical Center

APH: Aurora Psychiatric Hospital

Review of 2016 Community Health Needs Assessment and 2017-2019 Implementation Strategy

Needs Identified and Priorities Selected in 2016 CHNA

During 2016, 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 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
- Leverages existing or 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)

Additionally, the *Hanlon Method for Prioritizing Health Problems* (see Appendix E for details) was applied.

Community health needs addressed in the individual hospital 2017 Implementation Strategies

	ASLMC	ASLSS	ASMC	AWAMC	APH
Access and Coverage	✓	✓	✓	✓	✓
Chronic Disease Prevention and Management (including diabetes and hypertension)	✓	✓		✓	
Heart Health	✓				
Cancer	✓	✓		✓	
Hepatitis C	✓	✓	✓	✓	
Workforce Development	✓			✓	
Abdominal Aortic Aneurysm	✓				
Infant Mortality			✓		
Abuse Response			✓		
Behavioral Health		✓		✓	✓
Teen Pregnancy				✓	
Workplace Wellness				✓	
Senior Care		✓		✓	

Summary of Implementation Programs and Key Accomplishments

Access and Coverage:

- Coverage to Care (C2C) program: The service delivery of the C2C program a) Focuses on the patient's health beliefs and attempts to reshape those beliefs in a way that promotes effective health care utilization and management; b) Provides patients with necessary knowledge, skills and tools to successfully navigate the health care system and to advocate on their own behalf to meet their individual health care needs and preferences; c) Considers the influence of patients' cultural factors and pays particular attention to the impact of social determinants such as poverty, trauma, racism and mental health.
- MHCP ED Care Coordination Initiative: Includes community-wide ED to Medical Home Care Coordination. Milwaukee County EDs identify target populations, provide patient education and schedule appointments with medical homes. Using MyHealthDIRECT appointment-scheduling technology. Community health centers (CHCs) and free clinics post open appointments enabling EDs to schedule appointments electronically while the patient is at the hospital. Intake coordinators at CHCs reach out to patients prior to first appointment and attempt to reschedule if appointment is not kept. Aurora Health Care is a founding member of the MHCP.
- Provision of Aurora behavioral health counselors at all Aurora Health Care hospitals either in person or via secure video link, to conduct intake assessments in the ED and direct patients to appropriate resources and levels of care
- Hepatitis C: system-wide screening, identification and treatment
- Chronic disease: outreach blood pressure screenings implementing a system-wide protocol
- Heart health through our Karen Yontz Women's Cardiac Awareness Center and cardio-oncology center
- Cancer: Cancer Nurse Navigators linking patients with appropriate resources to increase survivorship and quality of life
- Injury prevention:
  - Identification of seniors at risk of falls and readmissions through standardized screening tools and connection to resources such as the Community Paramedics program
  - Aurora Healing and Advocacy Services, an integrated network of programs incorporating behavioral health:
    - The Healing Center at Sinai: Aurora's Sexual Assault Treatment Center (SATC) at ASMC is hospital-based and the only 24-hour emergency sexual assault treatment site in Milwaukee.
    - The Healing Center at Bruce (THC): An off-site program of Aurora Sinai and the only resource in Milwaukee exclusively committed to serving survivors of sexual violence at any point in their recovery and healing process. THC receives referrals from across Southeastern Wisconsin.
    - *The Healing Centers at Sojourner* (Sojourner Family Peace Center) and Aurora West Allis Medical Center
    - Domestic Violence Services: Provides safe environments with skilled staff at multiple Aurora Health Care settings to promote disclosure of abuse, along with advocacy and counseling services. This enables patients to have confidential access to support services they need in addition to the health care services they seek.
    - Safe Mom Safe Baby A case-management service providing management and advocacy services to pregnant or recently-delivered women experiencing intimate partner violence.
    - Milwaukee Sexual Assault Review

Detailed data for each program included in Implementation Strategies is provided in the Evaluations of Impact located in Appendices F-J.

Input from the Community

Although feedback mechanisms were put in place for the public to comment or provide input on the community health needs assessment, our hospitals did not receive any feedback specific to the CHNA. Advocate Aurora Health will continue to encourage input from the community by providing various feedback mechanisms for the 2019 CHNA Report, including a third-party online resource, healthcompassmilwaukee.org.

Lessons learned

Although Aurora Health Care has always been committed to providing behavioral health care to its patients and surrounding communities, evidenced by the work of the Aurora Psychiatric Hospital and Aurora Behavior Health Services, an increased need for behavioral health care available through both inpatient and outpatient settings became apparent since our previous CHNA. This is most clearly illustrated through the emergence of the opioid crisis. In 2017, more than 47,000 Americans died due to an opioid overdose.[1] Of these deaths, 301 occurred in Milwaukee County.[2] As a result, our hospitals worked on developing additional programs to link patients with appropriate care.

Another lesson has been learned through the success of programs with a case-management component. This is most evident through our Coverage to Care and Safe Mom Safe Baby programs. Despite their differing objectives, each program relies on a dedicated case-management team member to provide patients with one-on-one, individualized care to help them overcome challenges to cultivate healthier behaviors and achieve improved health outcomes. Because of the demonstrated success of these programs, both have been expanded to additional sites within Aurora Health Care to benefit greater numbers of patients.

[1] NIH National Institute on Drug Abuse, Opioid Overdose Crisis. Available at https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis. Accessed January 29, 2019.

[2] Wisconsin Dept. of Health Services, Division of Public Health, Office of Health Informatics, Wisconsin Interactive Statistics on Health (WISH) data query system. Available at https://www.dhs.wisconsin.gov/wish/index.htm, Drug Overdose Deaths Module. Accessed March 14, 2019.

2019 Community Health Needs Assessment

Acknowledgements

The Milwaukee Health Care Partnership (the Partnership), is a public/private consortium dedicated to improving health care coverage, access, care coordination and community health for underserved populations in Milwaukee County, with the aim of improving health outcomes, reducing disparities and lowering the total cost of care.

As a founding member of the Partnership, since 2012, Aurora Health Care has aligned resources with the three other health systems within the Partnership, the City of Milwaukee Health Department (MHD), and 10 other municipal health departments within Milwaukee County, to conduct a triennial shared Community Heath Needs Assessment (CHNA) in which Milwaukee County serves as the unit of analysis. The process has been co-chaired by one member of the Partnership and the Vice President of Community Health for Aurora. Representatives of each of the health systems, the MHD and the Center for Urban Population Health collaborated on the process. All the most current indicators for our shared Milwaukee County CHNA are publicly available and can be found on a dynamic new website, Health Compass Milwaukee:

HEALTH COMPASS
MILWAUKEE

Visit: healthcompassmilwaukee.org

Our Community

Milwaukee County is the most populous and densely populated county in Wisconsin and the 47th most populous in the United States.[3] There are 19 cities in Milwaukee County; the largest is Milwaukee, followed by West Allis, Wauwatosa, Oak Creek, and Greenfield in that order.

With its eastern borders along the Lake Michigan shoreline and 1,400 acres of beachfront access, Milwaukee County has 150 parks linked by miles of scenic trails, with golf courses, beer gardens, dog parks, beaches, community centers, and botanical gardens, along with numerous art and natural history museums (even a Harley Davidson museum), a robust public library and transit system, two professional sports teams, the world's largest music festival and a summer line-up of ethnic festivals.

Although Milwaukee is known for its breweries, past and present, Milwaukee County is home to major U.S. companies, including Northwestern Mutual, Briggs & Stratton, Harley Davidson, Johnson Controls, Kohl's, Rexnord, Rockwell and S.C. Johnson among the largest. Milwaukee County has two airports (one international and one regional), and along its Lake Michigan shoreline, Port of Milwaukee is part of the Great Lakes St. Lawrence Seaway System, and the Lake Express high-speed auto and passenger ferry connects Milwaukee to Muskegon, Michigan from late spring to the fall of each year. Also, on the shores of Lake Michigan, University of Wisconsin-Milwaukee (UWM) School of Freshwater Sciences is the nation's only graduate school dedicated solely to the study of fresh water.

Milwaukee County is home to two major universities: Marquette University (MU) and the University of Wisconsin-Milwaukee (UWM), an Institute of Art and Design and the Milwaukee School of Engineering, six other four-year colleges, and the oldest technical college in the state, Milwaukee Area Technical

[3]Business Insider, Half of the United States Lives In These Counties. Available at https://www.businessinsider.com/half-of-the-united-states-lives-in-these-counties-2013-9. Accessed March 15, 2019.

College, serving four campuses within Milwaukee County, all providing schools of nursing, dentistry, applied and allied health professions.

Health and Health Care

In addition to the Medical College of Wisconsin, Milwaukee County is served by UWM's Zilber School of Public Health and the Center for Urban Population Health. There are four health systems operating in Milwaukee County: Advocate Aurora, Ascension, Children's Hospital of Wisconsin and Froedtert. There are 12 Federally Qualified Health Centers and 27 free community clinics in Milwaukee County.

Milwaukee is comprised of many diverse neighborhoods, cultures, religions, and identities. The cost of living in Milwaukee is slightly lower than in other major U.S. metropolitan areas. While residents pay more for health care, housing costs are relatively low. Most residents within the city rent, while many homeowners live in the surrounding metro area and older lakefront neighborhoods. An influx of young people drawn to Milwaukee's developing arts and craft-beer cultures have kept the population's median age relatively low. What's more, more than half of residents are not married. The suffering public school system and high crime rates have pushed some families to the more expensive and conservative suburbs of Mequon and Wauwatosa, among others. Roughly half the population identifies as religious, with a large portion of those who do affiliate with the Catholic Church.[4]

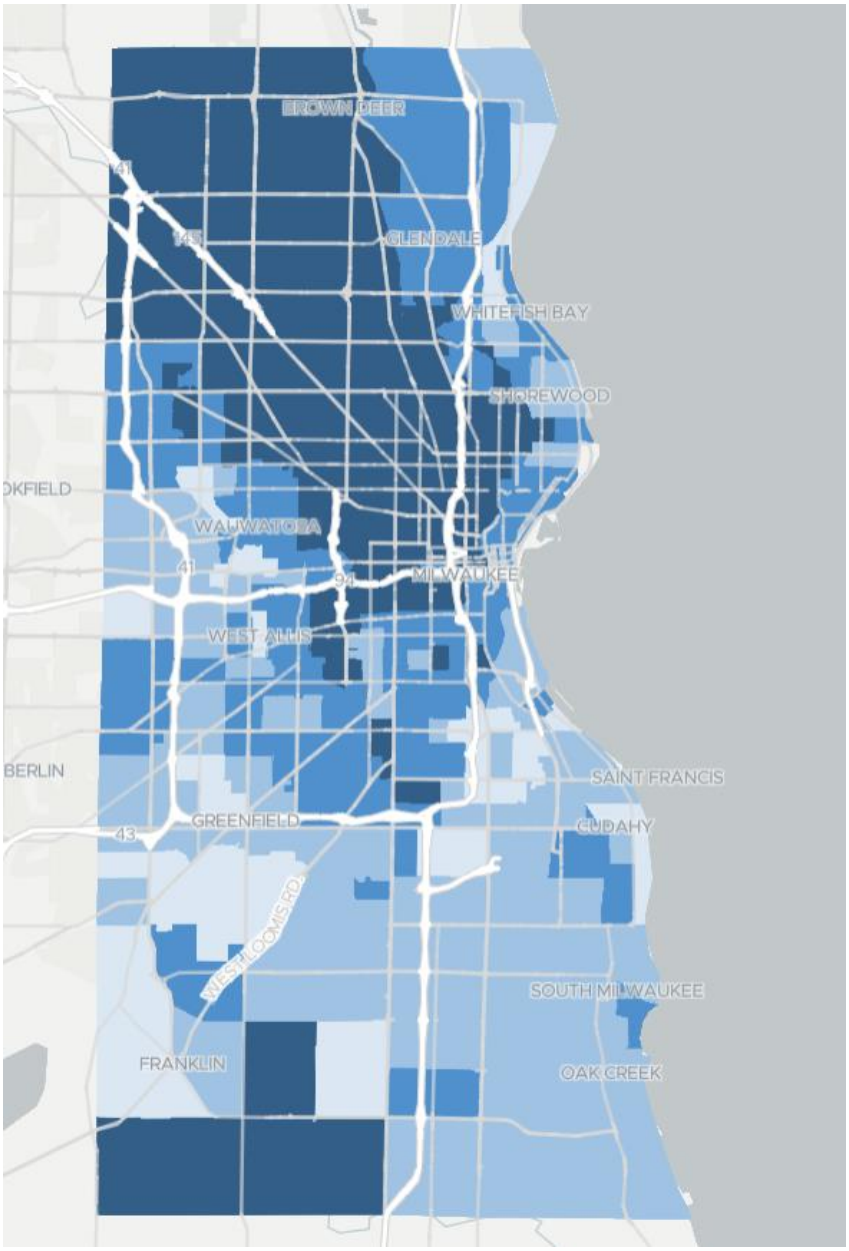
Some of the challenges facing Milwaukee County, including segregation, variation in life expectancy between zip codes, and health inequities between ethnic groups, create limitations to living a healthy life and impact health outcomes for some populations. These issues will be described further throughout the CHNA.

[4] U.S. News and World Report, What's it like to live in Milwaukee, WI? Available at https://realestate.usnews.com/places/wisconsin/milwaukee. Accessed March 15, 2019.

Community Demographics

Race and Ethnicity

Milwaukee County



Non-Hispanic Population, Black:

Percent by Block Group

American Community Survey 2012-2016

- Over 14.7
- 3.9 - 14.7
- 0.8 - 3.9
- Under 0.8
- No Data or Data Suppress

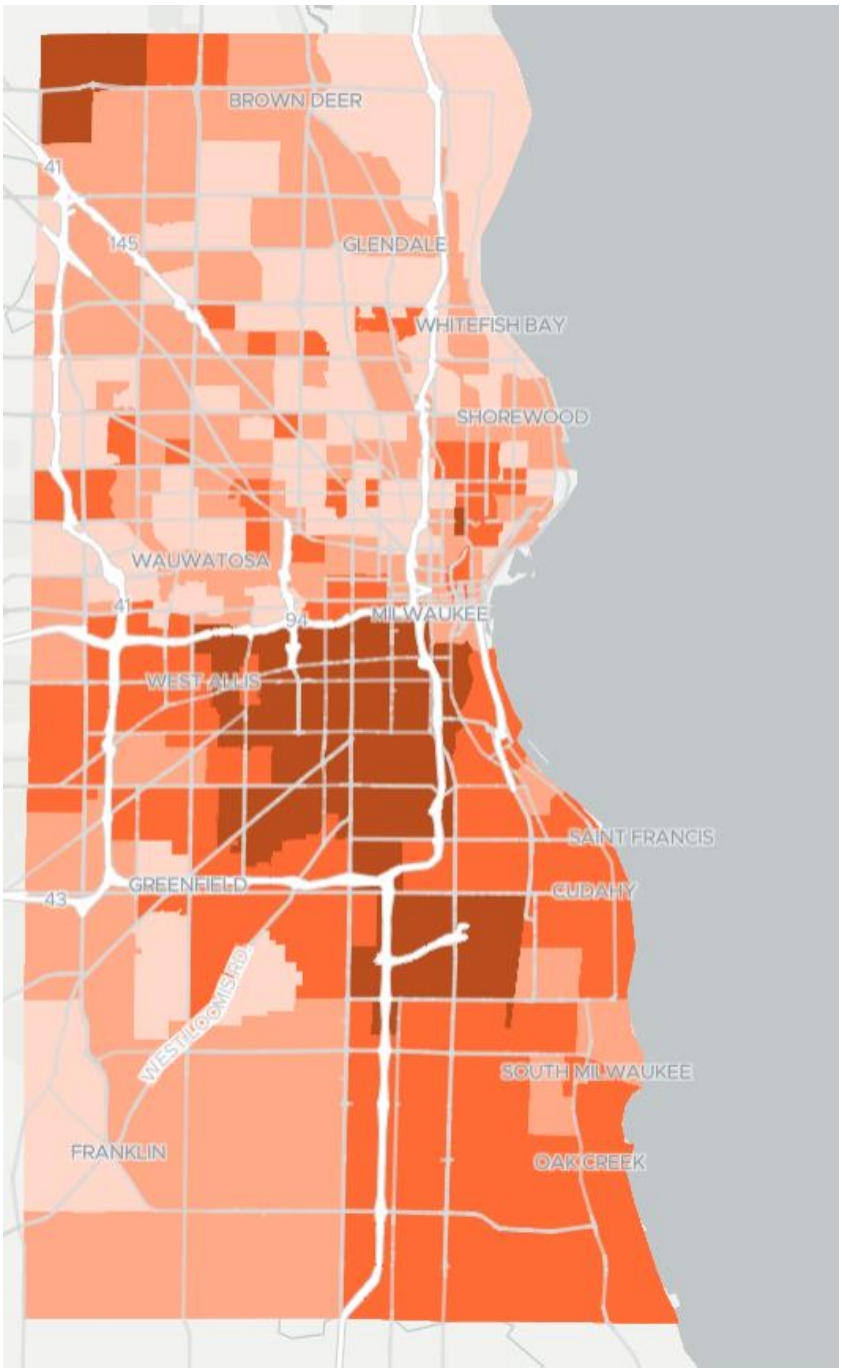
Data mapping from the Community Commons BroadStreet website, available at https://www.broadstreet.io/map/, accessed April 3, 2019.

Segregation

According to a Brookings study, from 2013-2017, Milwaukee ranked worst among 51 metro cities in the nation in terms of black-white segregation, with a segregation index of 79.8. This means, at least three in four black residents in Milwaukee would need to relocate to live in fully integrated neighborhoods with whites.[5]

[5] Brookings, Black-white segregation edges downward since 2000, census shows. Available at https://www.brookings.edu/blog/the-avenue/2018/12/17/black-white-segregation-edges-downward-since-2000-census-shows/. Accessed March 15, 2019.

Milwaukee County



Data mapping from the Community Commons BroadStreet website, available at https://www.broadstreet.io/map/ accessed April 3, 2019.

Segregation

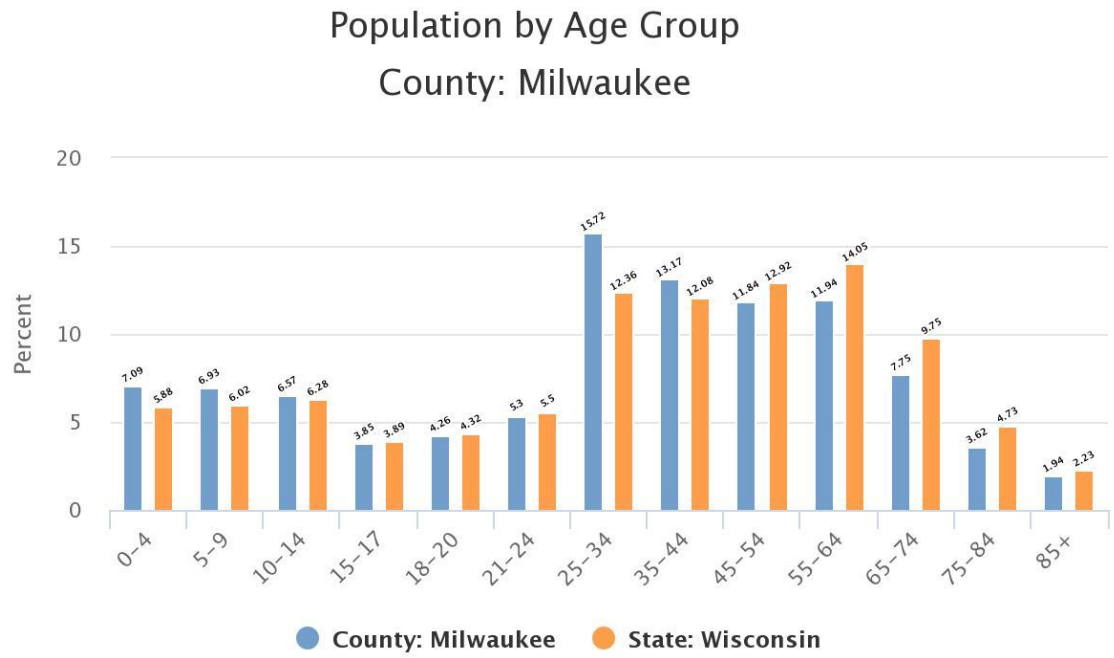
According to a 2016 study from the University of Wisconsin-Milwaukee Center for Economic Development, Milwaukee ranked 7th worst among 50 metro cities in the nation in terms of Hispanic-white segregation, with an "index of dissimilarity" of 64.2. An "index of dissimilarity" of 60 is considered "high segregation."[6]

[6] Center for Economic Development, Latino Milwaukee: A Statistical Portrait. Available at https://dc.uwm.edu/cgi/viewcontent.cgi?article=1004&context=ced_pubS. Accessed April 10, 2019.

LGBT Population[7]

Total Wisconsin LGBT Adult Population:	LGBT % of State Adult Population:	% of LGBT Individuals Raising Children:
152,695	3.4%	18%

Age Group (Source #2)



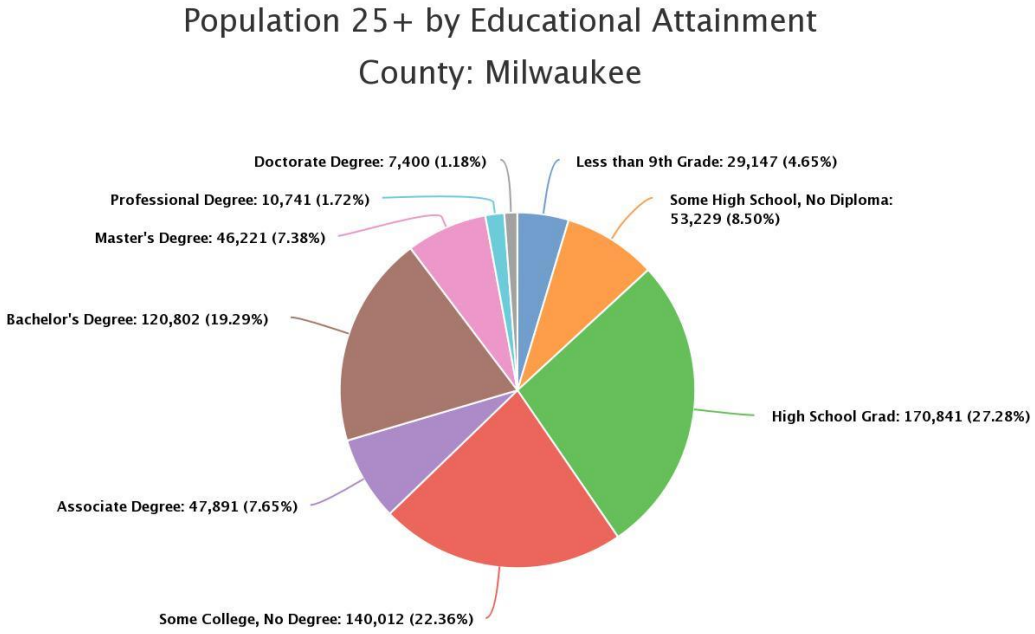
Claritas, 2018. www.healthcompassmilwaukee.org

Gender (Source #2)

Gender	Milwaukee County	Wisconsin
Male	48.41%	49.70%
Female	51.59%	50.30%

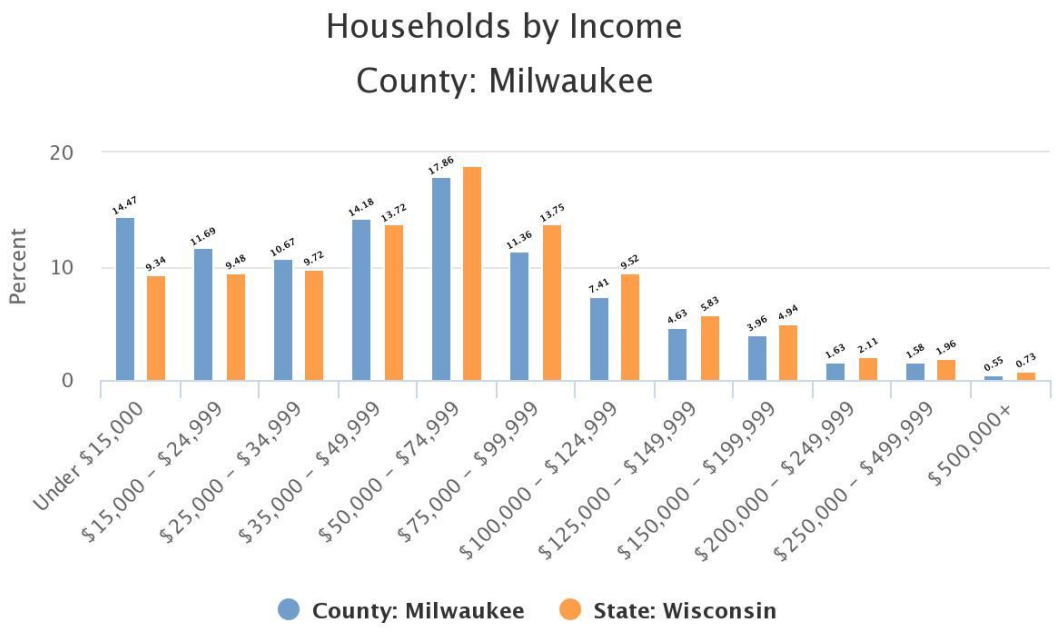
[7] Movement Advancement Project. Available at http://www.lgbtmap.org/equality_maps/profile_state/WI. Accessed February 8, 2019.

Educational Attainment (Source #2)



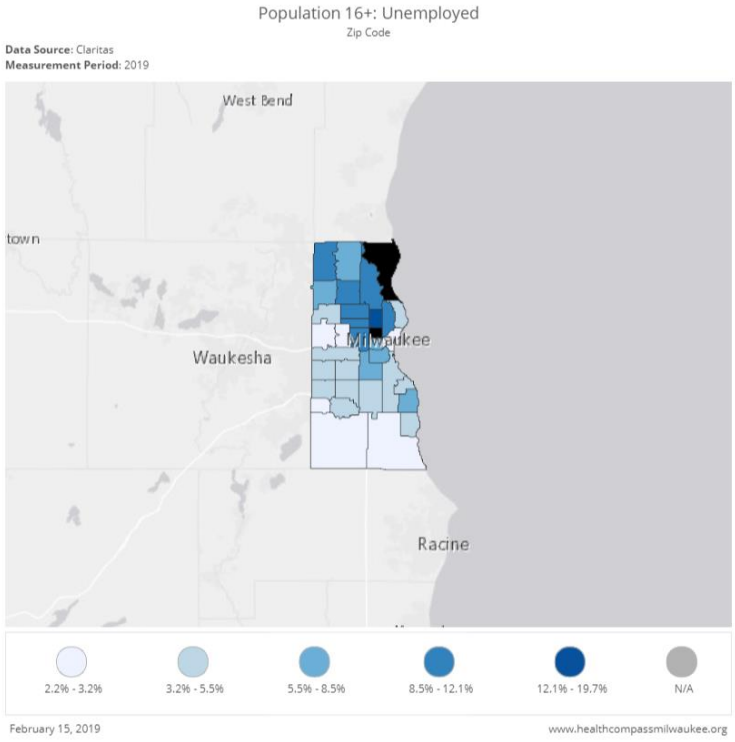
Claritas, 2018. www.healthcompassmilwaukee.org

Income (Source #2)



Claritas, 2018. www.healthcompassmilwaukee.org

Unemployment



Population age 16+ Unemployed:

Percentage by Zip Code

Source #2

2.2% - 3.2%

- 53217
- 53130
- 53202
- 53132
- 53213
- 53203
- 53226
- 53154

3.2% - 5.5%

- 53211
- 53228
- 53220
- 53235
- 53129
- 53227
- 53207
- 53219
- 53222
- 53221
- 53214
- 53172
- 53110

5.5% - 8.5%

- 53233
- 53223
- 53225
- 53215
- 53204

8.5% - 12.1%

- 53224
- 53208
- 53212
- 53209
- 53218
- 53216
- 53210

12.1% - 19.7%

- 53206

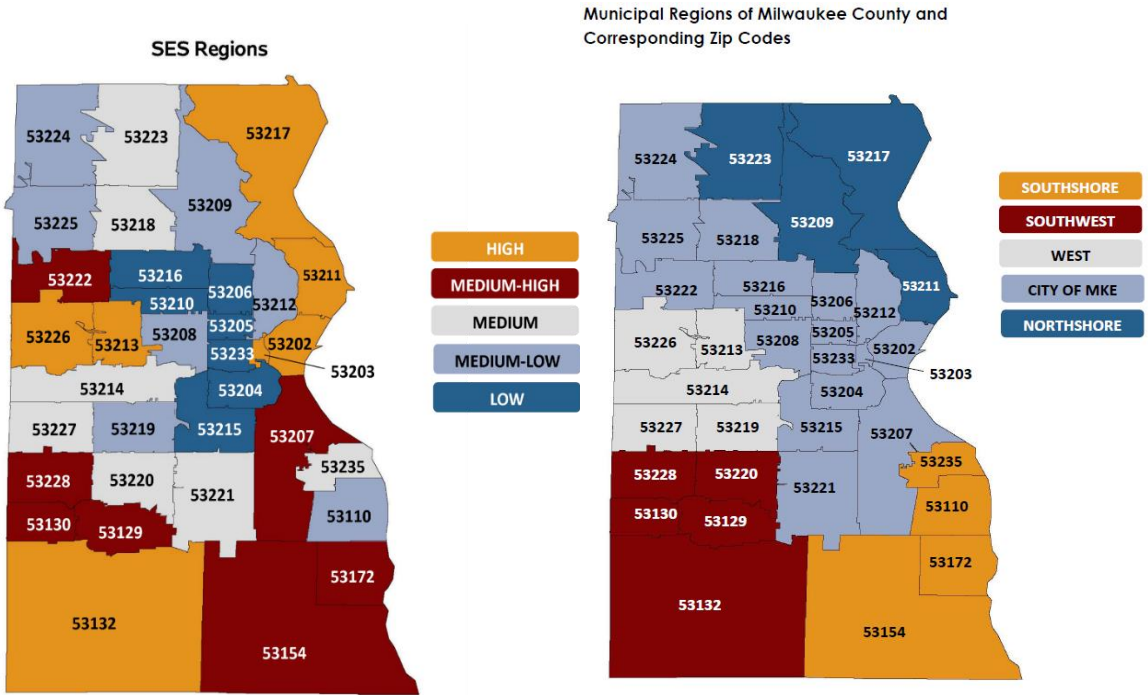
N/A

- 53205

Socioeconomic Status

The Center for Urban Population Health created a Socioeconomic Status (SES) index made up of components of income and education for each zip code in county. The zip codes were then grouped across five gradients. The Center for Urban Population Health then obtained health factors and outcomes data from the Wisconsin Department of Health Services and analyzed them in these five gradients. The map provides a breakdown of each group and the associated zip codes (Source #2).

A study published in 2019 found that African American males who were born and raised in the inner-city zip code of 53206 have experienced, on average, virtually no upward intergenerational economic mobility over the past generation.[8]



Center for Urban Population Health, www.healthcompassmilwaukee.org

Life expectancy

Overall, an analysis published documented geographic differences when comparing the life expectancies at birth for children born into each of the zip codes in Milwaukee county between 2010 and 2014, and that life expectancies in Milwaukee zip codes range from as low as 71.3 years to as high as 83.2 years – nearly a 12-year difference.[9]

[8] University of Wisconsin Milwaukee Center for Economic Development, Milwaukee 53206 The Anatomy of Concentrated Disadvantage In an Inner City Neighborhood. Available at https://uwm.edu/ced/wp-content/uploads/sites/431/2019/02/Milwaukee-53206EXECSUMM.pdf. Accessed March 15, 2019.

[9] Center for Urban Population Health, Aurora Health Care Journal of Patient-Centered Research and Reviews – Life Expectancy at Birth in Milwaukee County: A Zip Code-Level Analysis. Available at https://digitalrepository.aurorahealthcare.org/cgi/viewcontent.cgi?article=1576&context=jpcrr. Accessed March 14. 2019.

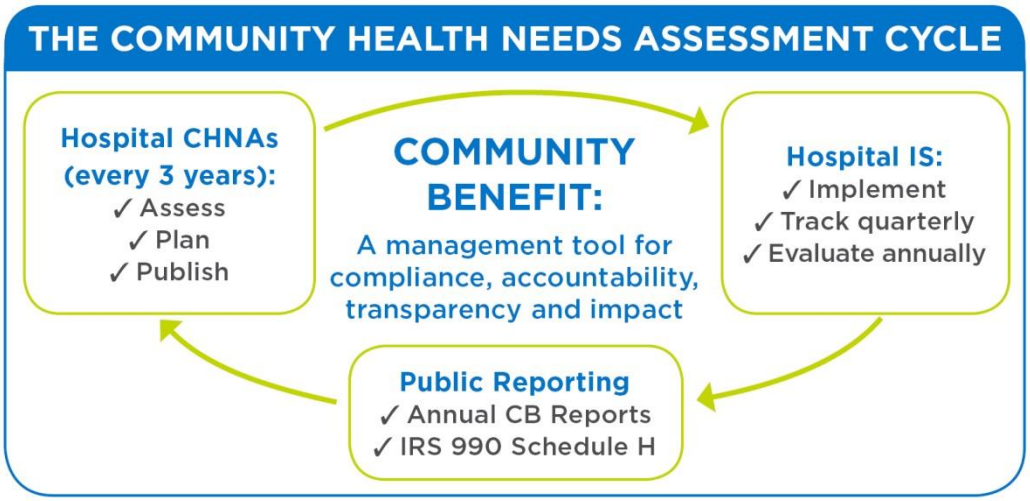
Demographic Characteristics of Populations Within Milwaukee County Municipal Regions

Characteristics	Municipal Regions				
	Northshore	City of Milwaukee	West	Southwest	Southshore
Population					
Total Number of People	139,447	493,924	138,487	99,032	84,228
Age					
Median (years)	36.7	30.9	37.2	43.3	41.8
0-4 years (%)	5.8	7.6	6.7	5.7	6.2
5-14 years (%)	12.7	13.6	11.3	11.3	10.7
15-17 years (%)	3.9	4.1	2.8	3.4	3.0
18-24 years (%)	13.2	13.8	7.5	6.4	7.2
25-64 years (%)	49.4	52.0	57.1	54.2	57.1
>65 years (%)	15.0	8.9	14.6	19.0	16.0
Gender (%)					
Male	47.6	48.1	49.0	49.2	49.0
Female	52.4	51.9	51.0	50.8	51.0
Race (%)					
White	56.2	45.3	86.4	87.9	89.1
Black	35.6	38.6	4.5	3.5	2.5
Asian	4.1	4.1	2.8	4.5	3.8
Hispanic Ethnicity (%)	3.4	20.1	11.7	8.2	9.6
Education (%)					
High School or higher	91.7	83.4	92.4	93.3	90.6
Bachelor degree or higher	46.5	13.4	19.9	34.4	25.8
Language Spoken (%)					
English	85.2	70.9	83.1	82.6	81.6
Spanish	2.3	14.9	6.0	4.2	4.4
Average Household Size	2.4	2.5	2.2	2.4	2.3
Household Occupied by Renters (%)	45.7	61.7	44.3	36.5	43.5
Household Income ($)					
Median	$ 57,306	$ 37,046	$ 55,719	$ 62,023	$ 52,869
Mean	$ 81,913	$ 51,210	$ 68,736	$ 79,562	$ 66,844

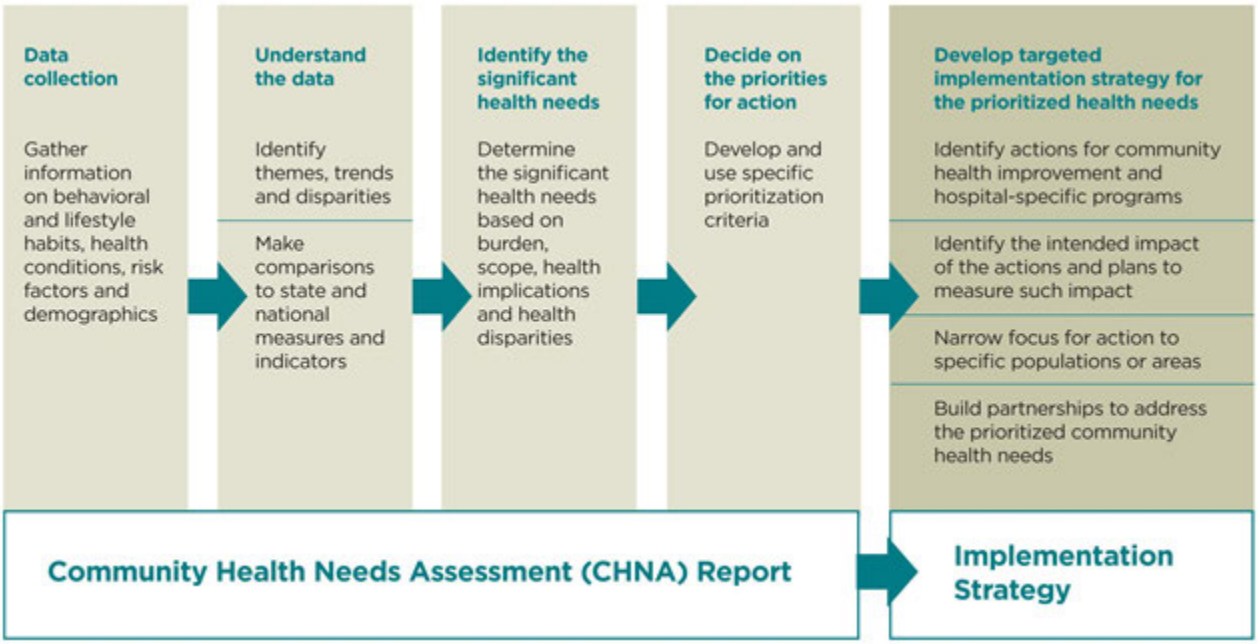
Data Source: US Census

Methodology Used for the 2019 Community Health Needs Assessment

Since 2003, Aurora Health Care has underwritten a community health survey of Milwaukee County approximately every three years, conducted in partnership with the local health departments. This helps the health departments focus their resources on community health issues and enables our hospitals to align our charitable resources and expertise to respond to identified community health priorities. To view the community health surveys dating back to 2003, visit aurora.org/commresearch.



Through the Milwaukee Health Care Partnership collaboration, quantitative data was collected through primary (municipal region-specific) and secondary (county-level) sources and was supplemented with qualitative data gathered through key informant interviews and focus groups. Secondary data sources are collected, analyzed and published at different intervals; therefore, the data years noted in this report vary. However, the most current data available was used in preparing this CHNA Report. As new secondary sources are released, Health Compass Milwaukee will be automatically updated.



The core data sources for the CHNA include:

Quantitative data sources

Source #1 | Primary Research: Community Health Survey Report

The community health survey of 1,312 adults is a source of primary community health data. The latest telephone survey was completed between February 20 and May 12, 2018 and analyzed and posted in 2019. This comprehensive phone-based survey gathers specific data on behavioral and lifestyle habits of the adult population and select information about child health. In addition, this report collects data on the prevalence of risk factors and disease conditions existing within the adult population and compares, where appropriate and available, health data of residents to state and national measures. Conducted approximately every three years, the survey can be used to identify community trends and changes over time. New questions have been added at different points in time. JKV Research, LLC, analyzed the data and prepared the final report. For further description see Appendix A and for the data summary Appendix D.

Source #2 | Secondary-source Data: Health Compass Milwaukee

Health Compass Milwaukee compiles and updates all publicly available health-related data for Milwaukee County, with tools to support research and planning for community health improvement. The database was created through collaboration with Advocate Aurora Health, Ascension, Children's Hospital of Wisconsin, Froedtert and the Medical College of Wisconsin, the Milwaukee Health Care Partnership, and the Center for Urban Population Health. For further description see Appendix B or visit healthcompassmilwaukee.org.

Qualitative data source

Source #3 | Key Informant Interview Report

During 2018, eighty individuals who represent the broad interests of the community served, leaders from public health, education, law enforcement and community organizations serving medically underserved, low-income and minority populations, were consulted: 40 in one-on-one interviews and 40 in a series of four focus groups. The same interview tool was used in each case. These key informants were asked to rank-order the top three-to-five major health-related issues for Milwaukee County, based on the focus areas presented in Wisconsin's State Health Plan, *Healthiest Wisconsin 2020*. For each top-ranked health topic, the respondents were asked to specify existing strategies to address the issue, barriers or challenges to addressing the issue, additional strategies needed, key partners in the community that hospitals should collaborate with to improve community health, and targeted groups to address health inequities.

The summary *Key Informant Interview Report* (KIIR) prepared by the Center for Urban Population Health (CUPH) presents cross-cutting themes, summaries of the top five health issues and additional health issues reported by community stakeholders. Additionally, the Key Informant Interview Report compiles a listing of potential resources and partners (assets) identified to address community health issues (Appendix C).

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

Summary of Findings

This report references the following data collection years: 2006, 2009, 2012, 2015, and 2018. The Community Health Survey (Source #1), the secondary data (Source #2), and the key informant interview reports (Source #3) provide an overview of the community health issues in the communities of Milwaukee, Cudahy/Oak Creek/St. Francis/South Milwaukee (referred to as "South Shore"), Franklin/Greenfield/Greendale/Hales Corners (referred to as "South West"), Wauwatosa/West Allis/West Milwaukee (referred to as "West"), and Bayside/Brown Deer/Fox Point/Glendale/River Hills/Shorewood/Whitefish Bay (referred to as "North Shore"). When available and applicable, *Healthy People 2020* objectives are listed for the health topics.

The use of statistics is to determine whether a true difference between two percentages is likely to exist. If a difference is **statistically significant**, it is unlikely that the difference between the two percentages is due to chance. Conversely, if a difference is **not statistically significant**, it is likely there is no real difference (Source #1).

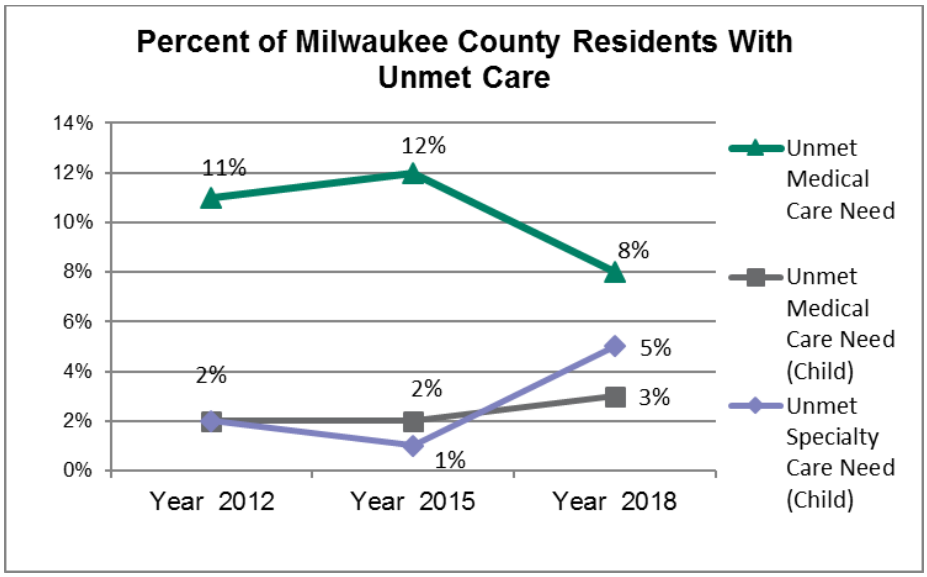
Access

Unmet medical care | In 2018, 8% of respondents delayed or did not seek medical care due to costs in the past 12 months, similar to 12% in 2015. The number of respondents reporting their child had an unmet medical need remained steady since 2012. The number of respondents reporting their child had an unmet specialist need increased significantly from 2015 to 2018, as well as from 2012 to 2018 (Source #1). Access to health care was a ranked as a top issue by community members and key stakeholders (Sources #1, #3). The table below shows respondents reporting someone in their household did not get the medical or specialist care they needed in the last 12 months (Source #1).

	Unmet Medical (Adult)		Unmet Medical (Child)		Unmet Specialist (Child)	
	2015	2018	2015	2018	2015	2018
Milwaukee County	12%	8%	2%	3%	1%	5%
City of Milwaukee	14%	9%	3%	4%	1%	5%
South Shore	11%	8%	2%	5%	1%	0%
South West	10%	3%	5%	<1%	3%	5%
North Shore	9%	8%	<1%	<1%	0%	5%
West	11%	7%	3%	3%	3%	6%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown in the graph below, from 2012 to 2018, the percent of Milwaukee County adults who reported an unmet medical need statistically improved, while from 2015 to 2018, there was no statistical change. From 2012 to 2018, the overall percent of children with an unmet medical need statistically remained the same, as well as from 2015 to 2018. From 2012 to 2018, the overall percent of children with unmet specialist care statistically worsened, as well as from 2015 to 2018 (Source #1).



– The *Healthy People 2020* target is to reduce the proportion of persons who are unable to obtain or delay in receiving necessary medical care to 4.2%.

  Why is this significant? Unmet medical care can lead to further health complications and increase future costs. Access to medical care can detect and treat disease at an earlier stage, improve overall health, prevent disease and disability, and reduce preventable deaths.[10]

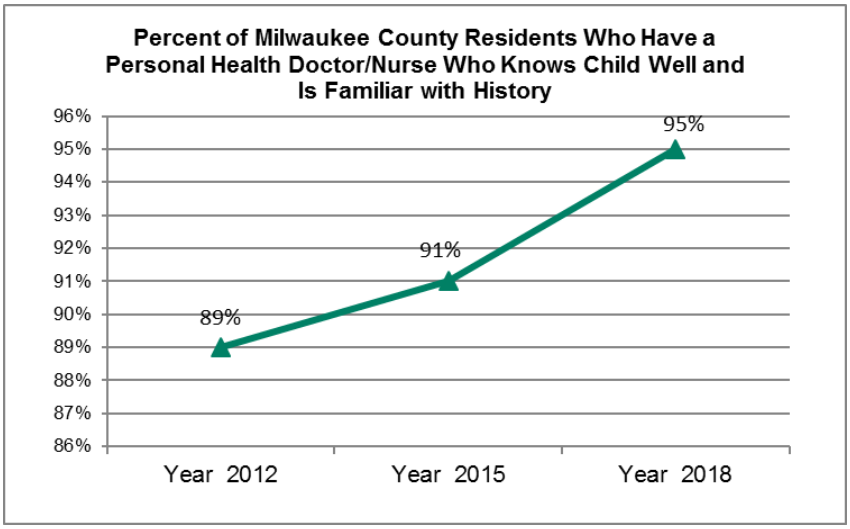
[10] Healthy People 2020-Access to Health Services, U.S. Department of Health and Human Service. Available at https://www.healthypeople.gov/2020/topics-objectives/topic/access-to-health-services. Accessed January 25, 2019.

In 2018, 62% of respondents reported their primary place for health services when they are sick was a doctor or nurse practitioner's office, similar to 65% in 2015. However, the rate has statistically decreased since 2006. Female respondents, white respondents, and non-Hispanic respondents were more likely to report their primary place for health services as a doctor or nurse practitioner's office. From 2015 to 2018, there was a statistical decrease in the overall percent of respondents reporting they have a primary care doctor or nurse practitioner, but from 2006 to 2018, there was no statistical change. From 2015 to 2018, there was a statistically significant increase in respondents reporting they have a personal health doctor or nurse who knows their child well and is familiar with their history, as well as from 2012 to 2018 (Source #1). Access to health care was a ranked as a top issue by community members and key stakeholders (Sources #1, #3). The table below shows respondents reporting the location they seek primary health services and if they have a primary care physician (Source #1).

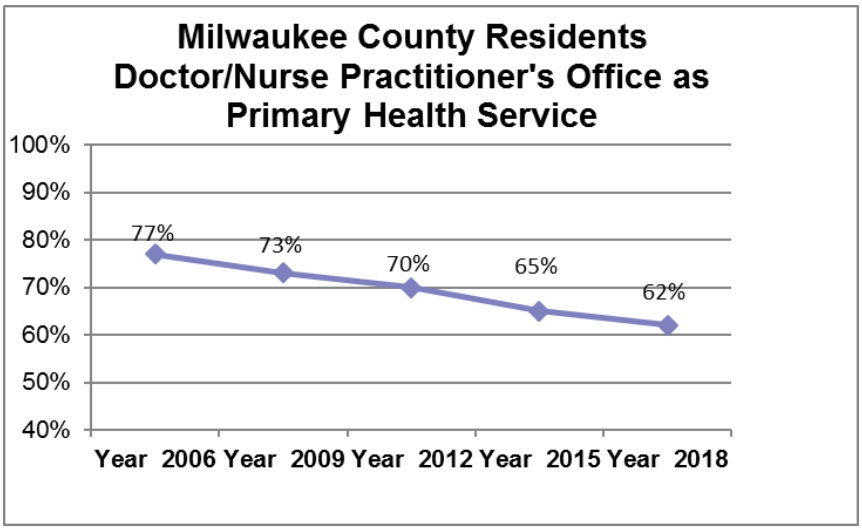
	Doctor/Nurse Practitioner's Office as Primary Health Service (Adult)		Have a Primary Care Doctor/Nurse (Adult)		Personal Health Doctor/Nurse Who Knows Child Well and Familiar with History (Child)	
	2015	**2018**	**2015**	**2018**	**2015**	**2018**
Milwaukee County	65%	62%	86%	82%	91%	95%
City of Milwaukee	61%	58%	84%	83%	91%	94%
South Shore	72%	77%	91%	90%	97%	96%
South West	74%	77%	88%	89%	95%	98%
North Shore	72%	78%	88%	88%	99%	98%
West	79%	82%	86%	89%	97%	100%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

From 2012 to 2018, the percent of Milwaukee County residents who have a personal health doctor/nurse who knows their child well and is familiar with their history statistically improved, as well as from 2015 to 2018, as shown in the graph below (Source #1).

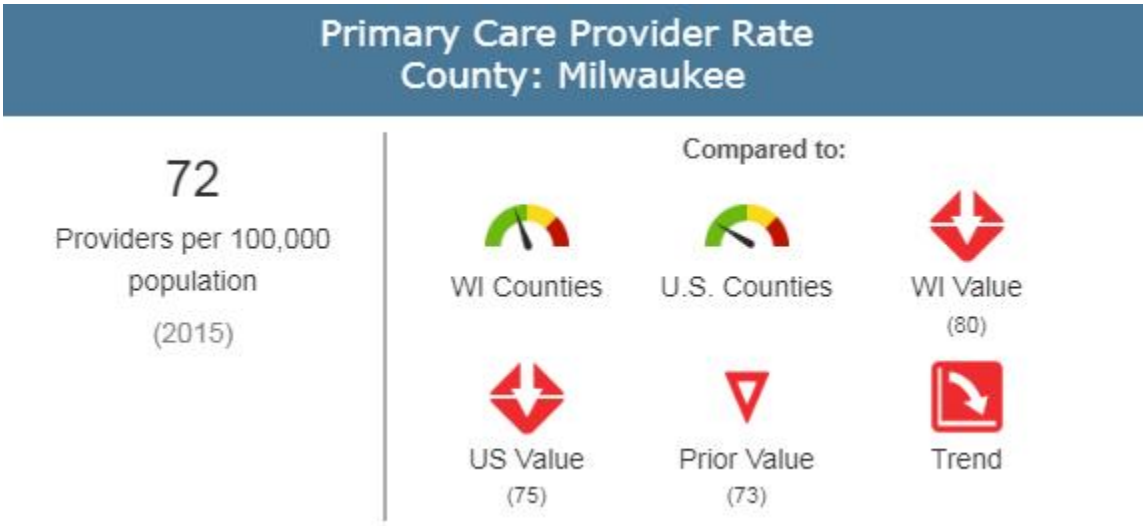


The rate of respondents reporting their primary place for health services when they are sick was a doctor or nurse practitioner's office has statistically decreased since 2006, as shown in the graph below (Source #1).

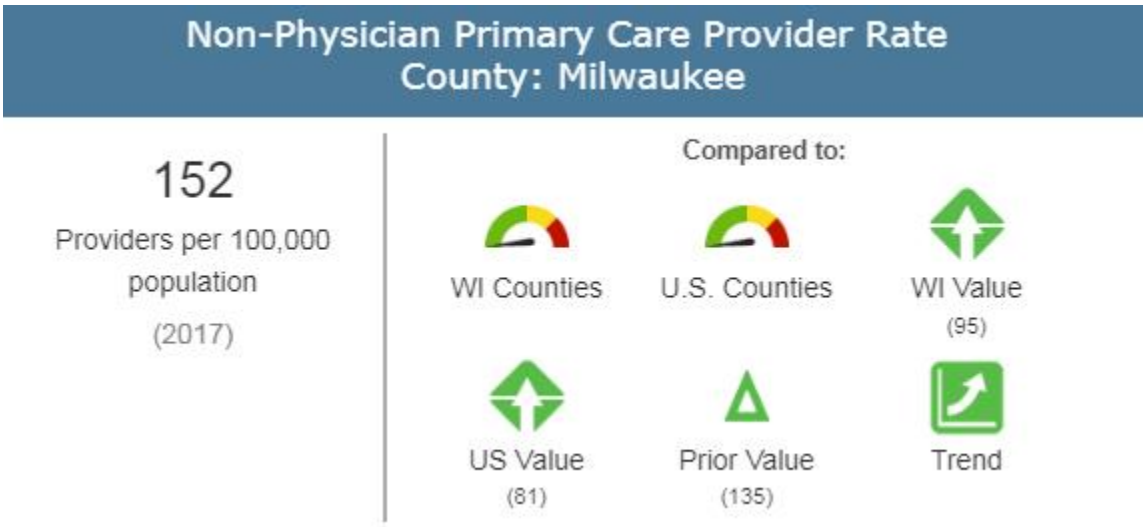


- The *Healthy People 2020* targets is to increase the proportion of people who have a primary care provider and a medical home to 95%.

As shown below, the primary care provider rate in Milwaukee County is lower than Wisconsin and US averages. There has been a statistically significant decrease over time (Source #2).



As shown below, the non-physician primary care provider rate in Milwaukee County is lower than Wisconsin and US averages. There has been a statistically significant decrease over time (Source #2).



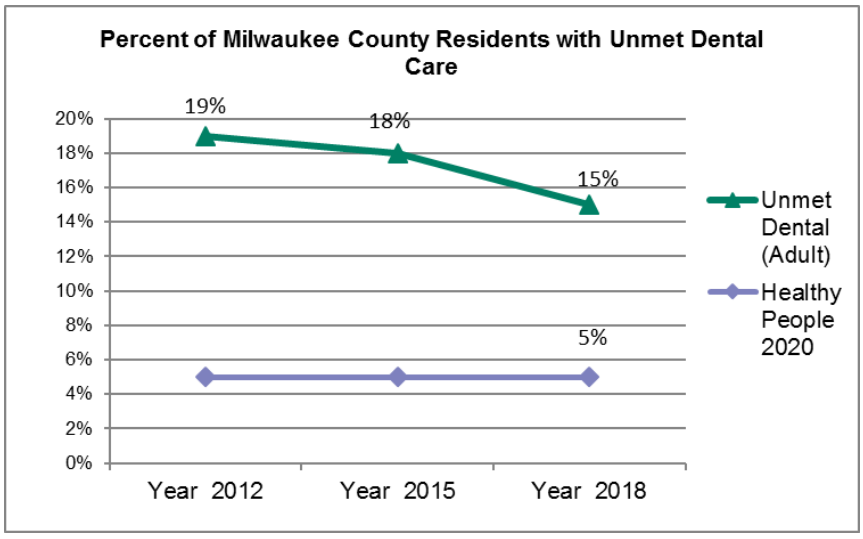
Why is this significant? Respondents who have a medical home but not a primary care provider are more likely to obtain their care at a clinical setting with rotating providers. Respondents with a primary care provider but who do not receive their primary health services at their medical home are more likely to access urgent care services (Source #1). The number of physicians is not keeping up with population growth, leading to an increasing shortage of primary care physicians. However, the number of non-physician clinicians has been increasing and is projected to continue to rise, partially making up for the shortfall of physicians (Source #2).

Dental services and unmet dental care | In 2018, 15% of respondents reported in the past year someone in their household did not receive the dental care needed, which has statistically decreased since 2012. In 2018, 6% of respondents reported their child did not receive the dental care needed, which has remained steady since 2012. The table below shows respondents reporting they did not get the dental care they needed in the last 12 months (Source #1).

	Unmet Dental (Adult)		Unmet Dental (Child)	
	2015	**2018**	**2015**	**2018**
Milwaukee County	18%	15%	9%	6%
City of Milwaukee	21%	18%	11%	6%
South Shore	17%	9%	6%	3%
South West	11%	7%	1%	0%
North Shore	14%	13%	0%	1%
West	18%	17%	5%	3%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown in the graph below, from 2012 to 2018, the overall percent of Milwaukee County residents with an unmet dental care need statistically improved, as well as from 2015 to 2018, but did not meet the *Healthy People 2020* target (Source #1).



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

Why is this significant? Unmet dental care can increase the likelihood for oral disease, ranging from cavities to oral cancer, which can lead to pain and disability. Access to oral health services can prevent cavities, gum disease and tooth loss, improve the detection of oral cancers and reduce dental care costs.[11]

Unmet prescription medications | In 2018, 12% of respondents reported someone in their household had not taken their prescribed medication due to prescription costs, which has remained steady since 2012. The table below shows respondents reporting that someone in their household had not taken their prescribed medication in the past 12 months due to prescription costs (Source #1).

	Unmet Prescription (Household)	
	2015	**2018**
Milwaukee County	11%	12%
City of Milwaukee	12%	11%
South Shore	7%	7%
South West	8%	9%
North Shore	6%	8%
West	15%	11%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

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

Why is this significant? Lack of access to prescribed medication can decrease medication adherence and reduce self-management of chronic diseases and other health issues.[12]

[11] Healthy People 2020-Oral Health. U.S. Department of Health and Human Service. Available at https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health. Accessed January 25, 2019.
[12] Healthy People 2020-Access to Health Services. U.S. Department of Health and Human Service. Available at https://www.healthypeople.gov/2020/topics-objectives/topic/access-to-health-services. Accessed January 25, 2019.

Unmet mental health services | In 2018, 3% of respondents reported someone in their household had an unmet mental health need, which has remained steady since 2012. The table below shows respondents reporting an unmet mental health need (Source #1).

	Unmet Mental Health (Adult)	
	2015	**2018**
Milwaukee County	4%	3%
City of Milwaukee	5%	4%
South Shore	3%	2%
South West	2%	2%
North Shore	4%	5%
West	2%	3%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

Why is this significant? Mental health and physical health are interconnected. An unmet mental health need can lead to further complications and increase future costs; the burden of mental illness 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.[13]

[13] Healthy People 2020-Access to Health Services. U.S. Department of Health and Human Service. Available at https://www.healthypeople.gov/2020/topics-objectives/topic/access-to-health-services. Accessed January 25, 2019.

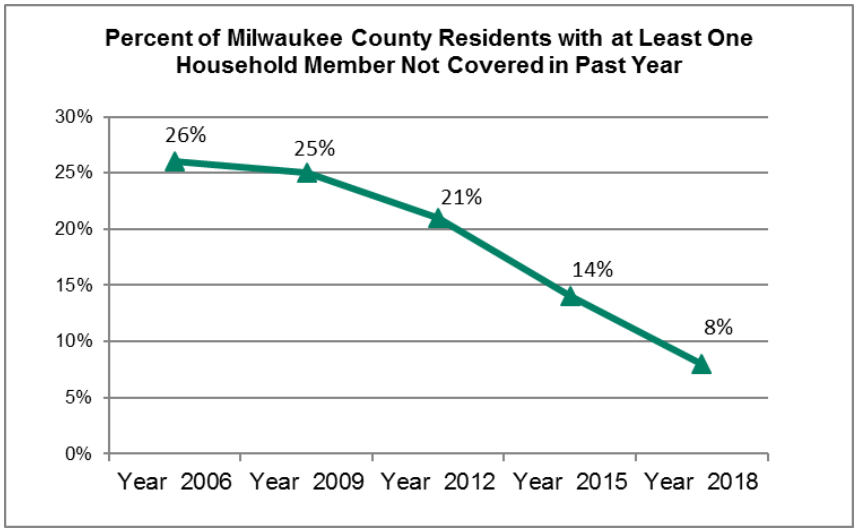
Coverage

Health care coverage | In 2018, 9% of respondents 18 and older and 11% of respondents 18 to 64 reported no current personal health care coverage, a statistically significant increase from 2015. Respondents who were male, 18 to 24 years old, African American, Hispanic, had a high school education or less, were in the bottom 40 percent household income bracket or unmarried were more likely to report this. The percent of respondents who reported at least one household member was not covered in the past year, has been statistically decreasing from 26% in 2006. The table below shows respondents reporting they did not have health coverage (Source #1).

	Personally Not Currently Covered (18 and Older)		Personally Not Currently Covered (18 to 64 Years Old)		At Least One Household Member Not Covered in Past Year	
	2015	2018	2015	2018	2015	2018
Milwaukee County	4%	9%	5%	11%	14%	8%
City of Milwaukee	6%	11%	6%	13%	16%	11%
South Shore	2%	3%	2%	3%	6%	4%
South West	2%	2%	3%	2%	5%	5%
North Shore	1%	4%	2%	5%	4%	4%
West	2%	2%	3%	3%	11%	7%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown in the graph below, from 2006 to 2018, the percent of Milwaukee County residents with at least one household member not covered by insurance in the past year statistically improved, as well as from 2015 to 2018.



– 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.[14]

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.[15]

Asthma | In 2018, 12% of respondents reported current asthma, which has remained steady since 2006. Respondents who were female, 25 to 64 years old, non-Hispanic, in the bottom 40 percent household income bracket or unmarried were more likely to report this. From 2015 to 2018, there was a statistical increase in the overall percent of respondents who reported their child had asthma. The table below shows respondents reporting current asthma in the past three years (Source #1).

	Asthma, current (adult)		Asthma, current (child)	
	2015	**2018**	**2015**	**2018**
Milwaukee County	14%	12%	11%	17%
City of Milwaukee	15%	12%	11%	20%
South Shore	8%	6%	11%	13%
South West	9%	12%	10%	15%
North Shore	9%	11%	2%	3%
West	11%	16%	11%	7%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

Why is this significant? Without proper management, asthma can lead to high health care costs. Management of the disease with medical care and prevention of attacks by avoiding triggers is essential.[16]

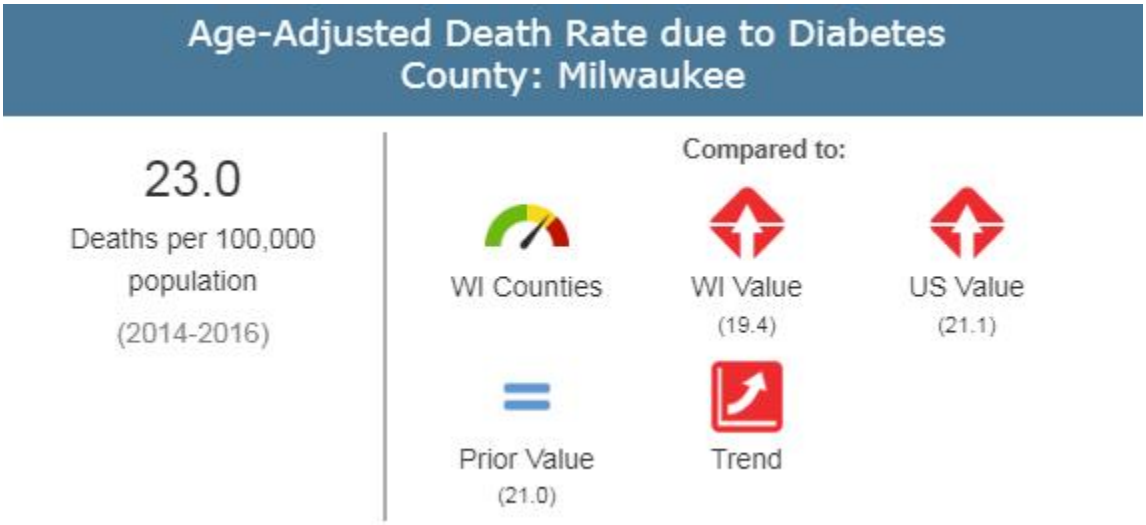
[14] Healthy People 2020-Access to Health Services. U.S. Department of Health and Human Service. Available at https://www.healthypeople.gov/2020/topics-objectives/topic/access-to-health-services. Accessed January 25, 2019.
[15] Centers for Disease Control and Prevention - Chronic Disease Prevention and Health Promotion. Available at http://www.cdc.gov/chronicdisease/index.htm. Accessed February 28, 2019.
[16] Centers for Disease Control and Prevention – Asthma. Available at https://www.cdc.gov/asthma/. Accessed February 20, 2019.

Diabetes | In 2018, 10% of respondents reported diabetes, which has remained constant since 2006. Respondents who were in the bottom 40 percent household income bracket or overweight were more likely to report diabetes. The table below shows adults reporting diabetes in the past three years (Source #1).

	Diabetes	
	2015	**2018**
Milwaukee County	11%	10%
City of Milwaukee	11%	10%
South Shore	10%	12%
South West	8%	10%
North Shore	11%	9%
West	7%	7%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown below, when compared to other Wisconsin counties, the 2014-2016 age-adjusted death rate due to diabetes in Milwaukee County is in the 2nd worst quartile. The rate is higher than the Wisconsin and US averages. The rate is not statistically significant from the prior value, but there has been a significant increase over time (Source #2).



Why is this significant? Diabetes may lead to serious health complications including heart disease, blindness, kidney failure and lower-extremity amputations; it is the seventh leading cause of death in the United States.[17] The average medical expenditures among people with diagnosed diabetes is about 2.3 times higher than average medical expenditures for people without diabetes.[18]

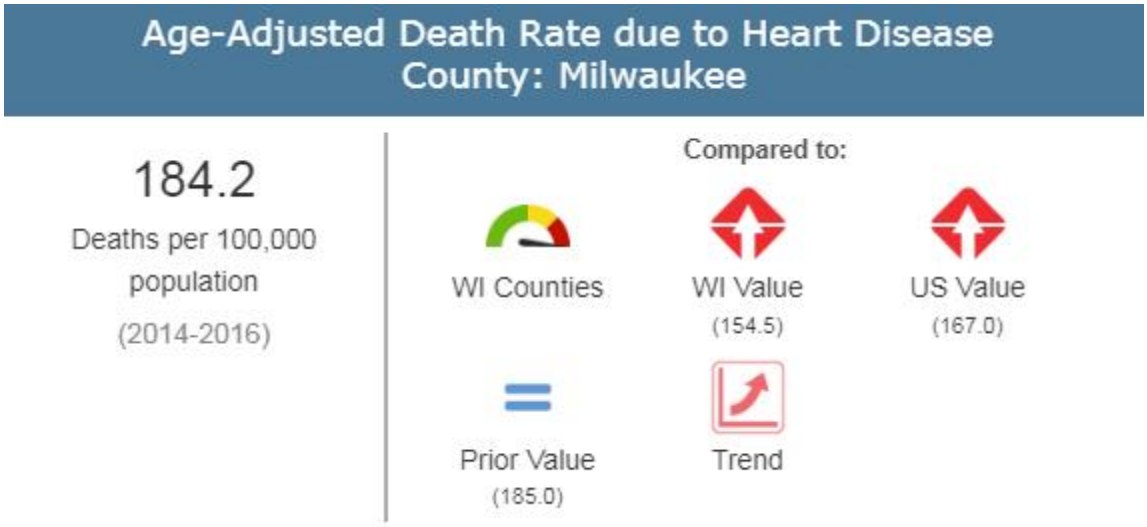
[17] Centers for Disease Control and Prevention. –Diabetes Complications. Available at https://www.cdc.gov/diabetestv/diabetes-complications.html. Accessed January 30, 2019.
[18] CDC National Diabetes Statistics Report, 2017: Estimates of Diabetes and Its Burden in the United States. Available at https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf. Accessed February 20, 2019.

Heart disease or heart condition | In 2018, 8% of respondents reported a heart disease or condition, which has remained constant since 2006. Respondents who were 65 and older, white, non-Hispanic, with some post high school education, in the bottom 60 percent household income bracket, who were overweight or inactive were more likely to report a heart disease or heart condition. The table below shows adults reporting a heart condition in the past three years (Source #1).

	Heart Disease or Condition	
	2015	**2018**
Milwaukee County	9%	8%
City of Milwaukee	8%	8%
South Shore	8%	9%
South West	11%	9%
North Shore	11%	6%
West	9%	10%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown below, when compared to other Wisconsin counties, the 2014-2016 age-adjusted death rate due to heart disease in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin and US averages. The rate is not statistically significant from the prior value, and there has not been a statistically significant increase over time (Source #2).



Why is this significant? The term "heart disease" refers to several types of heart conditions, such as coronary artery disease, angina, heart failure and arrhythmias. High blood pressure, high cholesterol and smoking are key risks for heart disease. Heart disease is the leading cause of death among both males and females in the United States.[19]

[19] Centers for Disease Control and Prevention – Heart Disease. Available at https://www.cdc.gov/heartdisease/index.htm. Accessed February 20, 2019.

Overweight/Obesity | In 2018, 64% of respondents reported being at least overweight, a statistical decrease from 2015. From 2006 to 2018, there was a noted decrease in the percent of respondents 18 to 34 years old and a noted increase in the percent of respondents 35 to 54 years old or 65 and older being overweight. In 2006, respondents in the bottom 60 percent household income bracket were more likely to be overweight. In 2018, respondents in the top 40 percent household income bracket were more likely to be overweight, with a noted increase since 2006 (Source #1).

In the Milwaukee County Community Health Survey, the category "overweight" includes overweight and obese respondents. One nationally used definition of overweight status developed by the CDC is when a person's body mass index (BMI) is greater or equal to 25.0. A BMI of 30.0 or more is considered obese. Body Mass Index is calculated by using weight in kilograms/height in meters^2. The table below shows adults who were classified as being overweight (BMI 25 or greater) or obese (BMI 30 or greater) (Source #1).

	Overweight (BMI 25+)		Obese (BMI 30+)	
	2015	**2018**	**2015**	**2018**
Milwaukee County	69%	64%	38%	38%
City of Milwaukee	74%	64%	43%	40%
South Shore	69%	71%	35%	36%
South West	69%	75%	27%	40%
North Shore	55%	63%	20%	28%
West	70%	71%	34%	29%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

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

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. People who have obesity have annual medical costs that average $1,429 higher than those of normal weight. [20]

Cancer | Milwaukee County was higher than the Wisconsin average for incidence of oral cavity and pharynx cancer, breast cancer, cervical cancer, colorectal cancer, lung/bronchus cancer, and prostate

[20] Centers for Disease Control and Prevention. –Adult Obesity Facts. Available at https://www.cdc.gov/obesity/data/adult.html. Accessed January 30, 2019.

cancer. Milwaukee County was higher than the Wisconsin average and did not meet the Healthy People 2020 goals of age-adjusted death rate to breast cancer, colorectal cancer, lung cancer and prostate cancer (Source #2). Chronic diseases were ranked as a top health issue by community members (Source #1). The table below compares Milwaukee County's 2011-2015 age-adjusted cancer incidence and mortality rates per 100,000 population with the rates for Wisconsin (WI). (Source #2).

	Milwaukee County	WI	HP2020 Target	Status
Oral Cavity and Pharynx Cancer Incidence Rate	12.9	12.3	na	na
Female Breast Cancer Incidence Rate	135.7	129.7	na	na
Cervical Cancer Incidence Rate	8.8	6.3	na	na
Colorectal Cancer Incidence Rate	42.1	37.6	na	na
Lung/Bronchus Cancer Incidence Rate	70.5	60.0	na	na
Prostate Cancer Incidence Rate	131.5	111.6	na	na
Age-Adjusted Death Rate due to Breast Cancer	22.8	20.0	20.7	●
Age-Adjusted Death Rate due to Colorectal Cancer	16.2	13.7	14.5	●
Age-Adjusted Death Rate due to Lung Cancer	48.5	43.0	45.5	●
Age-Adjusted Death Rate due to Prostate Cancer	22.3	21.2	21.8	●

*If Milwaukee County's rate does not meet the HP2020 benchmark, then a red circle is shown. If the CDC did not set a HP2020 goal in a specific health indicator, then "na" is shown.

Why is this significant? A person's cancer risk can be reduced in a number of ways including, but not limited to, receiving regular medical care and screenings, avoiding tobacco, limiting alcohol use, avoiding excessive exposure to ultraviolet rays from the sun and tanning beds, eating a diet rich in fruits and vegetables, getting tested for Hepatitis C, maintaining a healthy weight and being physically active.[21]

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

[21] Centers for Disease Control and Prevention – Cancer Prevention and Control. Available at https://www.cdc.gov/cancer/dcpc/prevention/other.htm. Accessed January 30, 2019.

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.[22]

Alcohol use | In 2018, 32% of respondents reported binge drinking in the past month, higher than the Wisconsin average of 25% and the *Healthy People 2020* goal of 24.4%. In 2018, 50% of respondents 25 to 34 years old binged in the past month. Respondents 25 to 34 years old, with some post high school education, in the top 40 percent household income bracket or unmarried were more likely to have binged at least once in the past month.

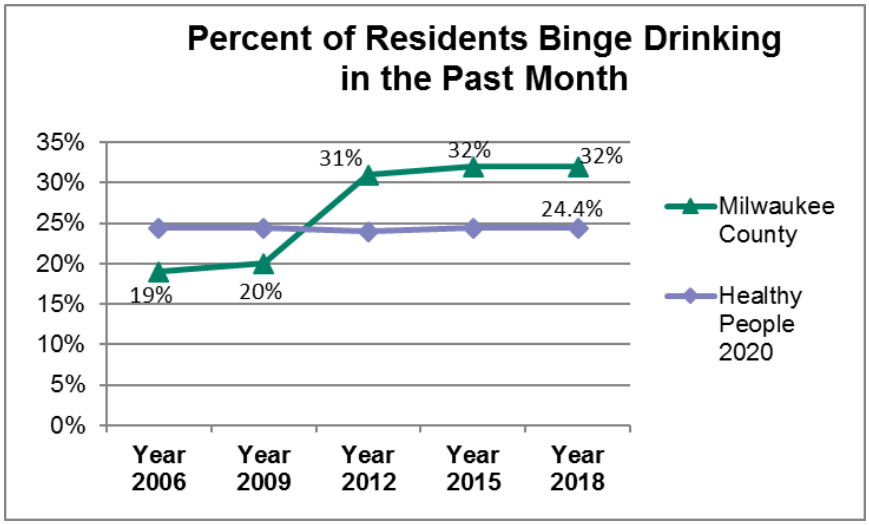
Excessive drinking reflects the percent of adults who report either binge drinking or heavy drinking. According to the National Institute on Alcohol Abuse and Alcoholism, binge drinking is defined as alcohol consumption that brings the blood alcohol concentration to 0.08% or more; this is generally achieved through consuming four or more alcoholic beverages for women or five or more for men within approximately two hours. In addition, the Substance Abuse and Mental Health Services Administration defines heavy alcohol use as binge drinking on five or more days in the past month.[23] Substance use was ranked as a top issue by community members and key stakeholders (Sources #1, #3). The table below shows adults who reported binge drinking in the past month (Source #1).

	Binge Drinking	
	2015	**2018**
Milwaukee County	32%	32%
City of Milwaukee	35%	35%
South Shore	39%	31%
South West	30%	37%
North Shore	24%	32%
West	33%	28%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

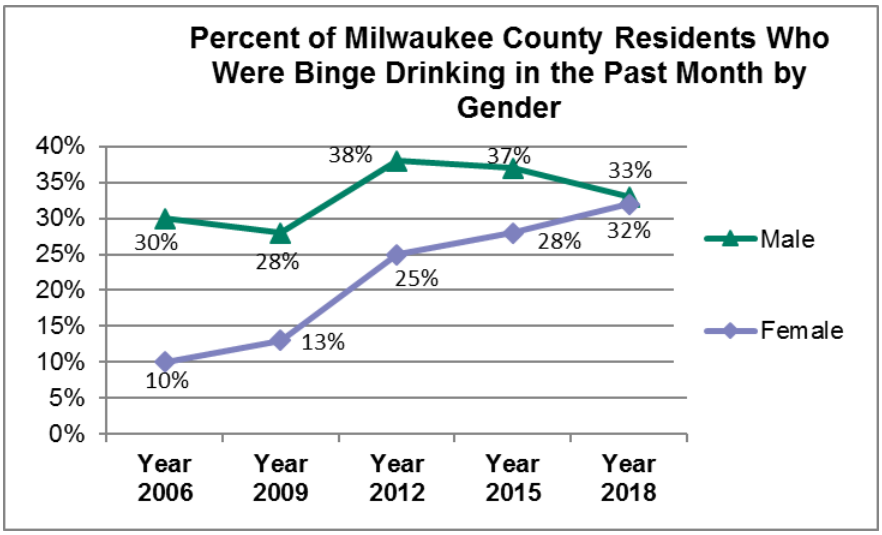
[22] Centers for Disease Control and Prevention-Chronic Disease Overview. Available at https://www.cdc.gov/chronicdisease/. Accessed March 1, 2019.
[23] National Institute on Alcohol Abuse and Alcoholism – Drinking Levels Defines. Available at https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking. Accessed January 30, 2019.

Shown in the graph below, from 2006 to 2018, the percent of Milwaukee County residents who were binge drinking in the past month statistically worsened, while from 2015 to 2018 there was not statistical change (Source #1).



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

Shown in the graph below, from 2006 to 2018, the percent of Milwaukee County females who were binge drinking in the past month more than tripled (Source #1).



Why is this significant? Binge drinking is associated with an array of health problems including, but not limited to, unintentional injuries (e.g. car crashes, falls, burns, drownings), intentional injuries (e.g., firearm injuries, sexual assault, domestic violence), alcohol poisoning, sexually transmitted infections, unintended pregnancy, high blood pressure, stroke, and other cardiovascular diseases, and poor control of diabetes. Binge drinking is extremely costly to society from losses in productivity, health care, crime and other expenses.[24]

[24] Centers for Disease Control and Prevention – Alcohol & Public Health. Available at https://www.cdc.gov/alcohol/index.htm. Accessed January 30, 2019.

Substance use | In Milwaukee County, the ER rate due to substance use was 42.6 per 10,000 population in 2015-2017, higher than Wisconsin rate of 22.0 per 10,000 population. In Milwaukee County, the hospitalization rate due to substance use was 21.3 per 10,000 population in 2015-2017, higher than Wisconsin rate of 21.3 per 10,000 population. Milwaukee County residents who are male and between the ages of 18 and 44 were more likely to have an ER visit or hospitalization due to substance use (Source #2). According to the CDC, the rate of dispensed opioid prescriptions peaked in 2012 and has since decreased steadily. However, the rate of opioid prescriptions dispensed was higher in Milwaukee County at 76.8 prescriptions per 100 population than the state rate (52.6/100 population).[25] Residents and key informants identified substance use as one of the top health issues challenging the community (Sources #1, #3).

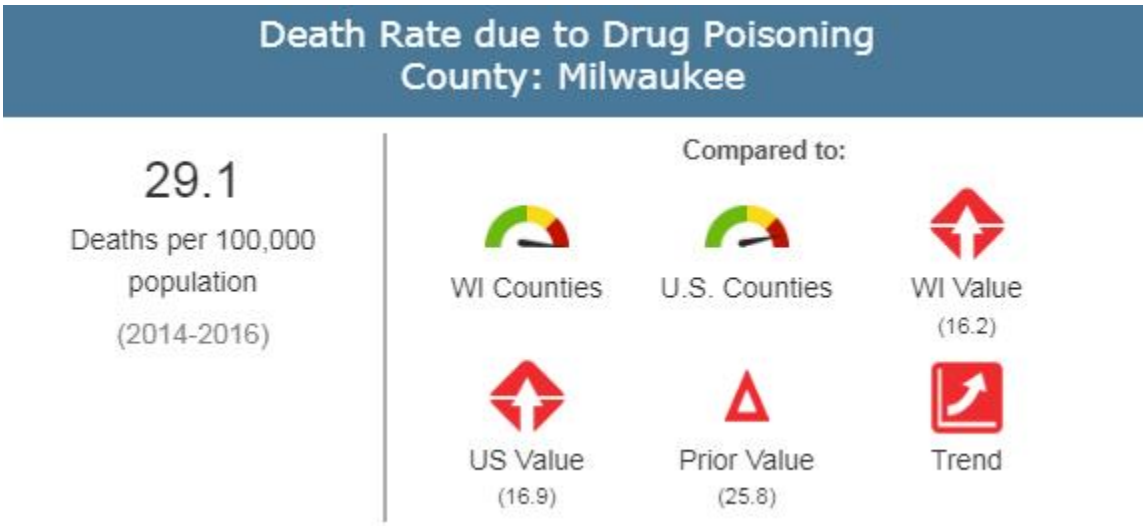
As shown below, when compared to other Wisconsin counties, the 2015-2017 age-adjusted ER rate due to substance use in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin average (Source #2).

As shown below, when compared to other Wisconsin counties, the 2015-2017 age-adjusted hospitalization rate due to substance use in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin average (Source #2).

[25] Centers for Disease Control and Prevention – Opioid Overdose: U.S. County Prescribing Rates. Available at https://www.cdc.gov/drugoverdose/maps/rxcounty2016.html. Accessed March 1, 2019.

Why is this significant? 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 (Source #2).

As shown below, when compared to other Wisconsin and US counties, the 2014-2016 age-adjusted death rate due to drug poisoning in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin and US averages. The rate is higher than the prior value, and there has been a significant increase over time (Source #2).



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

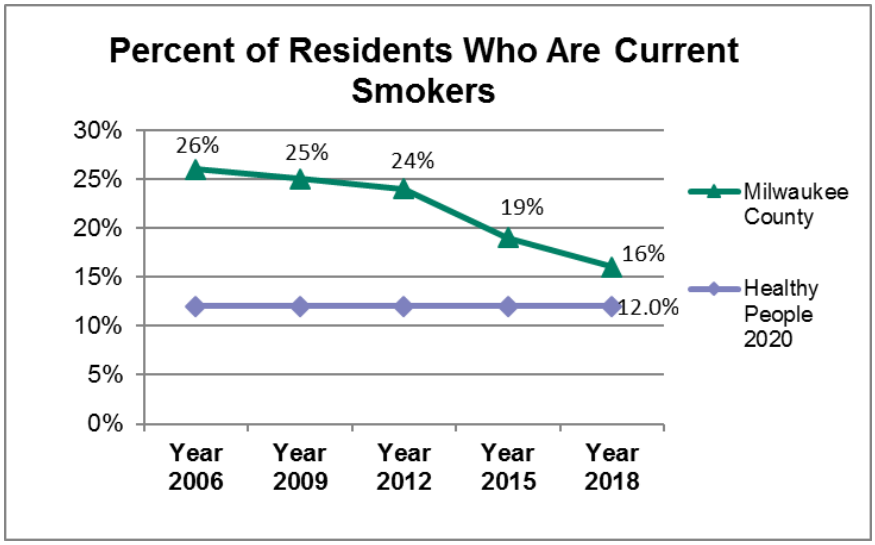
Why is this significant? Drug overdose deaths are the leading cause of injury death in the United States, with over 100 drug overdose deaths occurring every day. The death rate due to drug overdose has been increasing over the last few decades (Source #2).

Tobacco Use and Exposure | In 2018, 16% of respondents reported being a current smoker, which has been statistically decreasing since 2006. In 2018, 78% of respondents did not allow smoking in their home, which has been statistically increasing since 2009 (Source #1). From 2013 to 2016, there was a statistical decrease in mothers who smoked during pregnancy (Source #2). The table below shows adults reporting tobacco use, including cigarette, electronic cigarette, and cigar, cigarillo, or little cigar exposure in the past 30 days (current smoker) (Source #1).

	Cigarette Smokers		Electronic Cigarettes		Cigars, Cigarillos, or Little Cigars	
	2015	2018	2015	2018	2015	2018
Milwaukee County	19%	16%	6%	4%	5%	6%
City of Milwaukee	21%	16%	6%	4%	5%	8%
South Shore	22%	18%	5%	7%	4%	3%
South West	13%	9%	3%	3%	5%	9%
North Shore	13%	11%	4%	4%	3%	3%
West	21%	13%	6%	6%	3%	3%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown in the graph below, from 2006 to 2018, the percent of Milwaukee County residents who were current smokers statistically improved, as well as from 2015 to 2018 (Source #1).

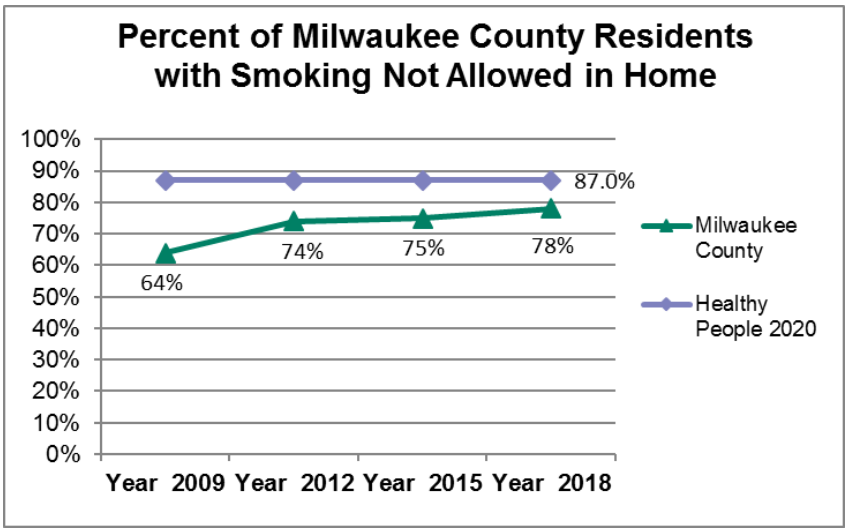


From 2015 to 2018, there has been a statistical increase in respondents reporting that smoking is not allowed in their home. The table below shows adults reporting smoking policies at home (Source #1).

	Smoking Not Allowed in Home	
	2015	**2018**
Milwaukee County	75%	78%
City of Milwaukee	72%	75%
South Shore	83%	81%
South West	84%	86%
North Shore	89%	83%
West	81%	81%

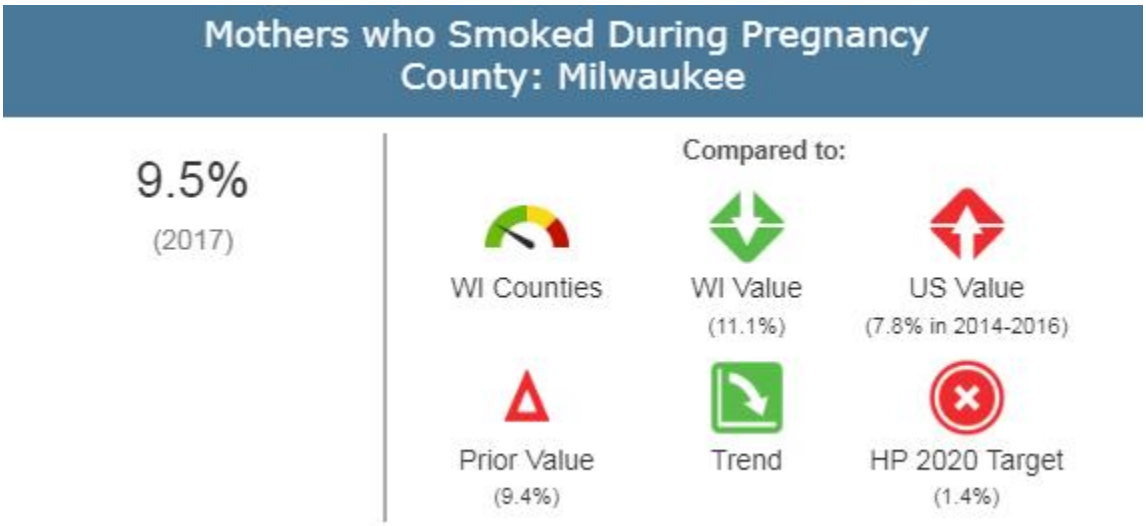
Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown in the graph below, from 2006 to 2018, the overall percent of Milwaukee County residents who did not allow smoking in their home statistically improved, as well as from 2015 to 2018, but does not meet the *Healthy People 2020* target (Source #1).



– 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%

As shown below, the rate of mothers who smoked during pregnancy in Milwaukee County is lower than the Wisconsin average, but higher than the US average. The rate is higher than the prior value, but there has been a significant decrease over time. The rate does not meet the *Healthy People 2020* target (Source #2).



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

Why is this significant? In the United States, cigarette smoking is the leading cause of preventable death. Smoking leads to disease and disability and harms nearly every organ in the body.[26] In addition, smoking during pregnancy poses risks for both mother and fetus. A baby born to a mother who has smoked during her pregnancy is more likely to have less developed lungs and lower birth weight and is more likely to be born prematurely. According to the Centers for Disease Control and Prevention, it is estimated that smoking during pregnancy causes up to ten percent of all infant deaths. Even after a baby is born, secondhand smoking can contribute to SIDS (Sudden Infant Death Syndrome), asthma onset, and stunted growth (Source #2).

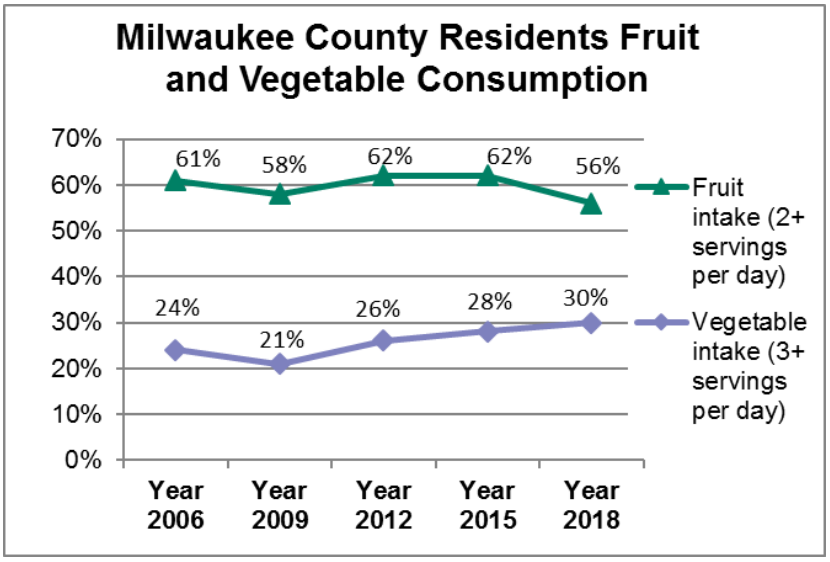
[26] Centers for Disease Control and Prevention – Smoking & Tobacco Use. Available at https://www.cdc.gov/tobacco/data_statistics/fact_sheets/index.htm?s_cid=osh-stu-home-spotlight-001. Accessed January 30, 2019.

Nutrition and physical activity | In 2018, 56% of respondents reported eating at least two servings of fruit per day, which has statistically decreased since 2006. From 2015 to 2018, there was no statistical change in the overall percent of respondents who reported eating at least three servings of vegetables per day, while from 2006 to 2018, there was a statistical increase (Source #1). From 2010 to 2015, the percentage of low-income and low access to a grocery store decreased from 3.2% to 2.5%. However, the percentage is as high as 64.0% in certain parts of Milwaukee County (Source #2). Nutrition was ranked as a top health issue among key stakeholders (Source #3). The table on the next page shows respondents who reported eating the recommended fruit and vegetable servings and reported soda consumption (Source #1).

	Fruit Intake (2+ Servings Per Day)		Vegetable Intake (3+ Servings Per Day)		Soda Consumption (0 in Past Week, Child)	
	2015	2018	2015	2018	2015	2018
Milwaukee County	62%	56%	28%	30%	na	61%
City of Milwaukee	59%	53%	26%	29%	na	61%
South Shore	63%	59%	32%	29%	na	63%
South West	65%	55%	30%	32%	na	61%
North Shore	68%	63%	36%	35%	na	79%
West	68%	60%	32%	33%	na	71%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown in the graph below, from 2006 to 2018, the percent of Milwaukee County residents reporting the recommended fruit intake statistically worsened, as well as from 2015 to 2018. From 2006 to 2018, the percent of Milwaukee County residents reporting the recommended vegetable intake statistically improved, while from 2015 to 2018, there was no statistical change.



As shown below, the 2015 low-income and low access to a grocery store rate in Milwaukee County has improved from the prior value (Source #2).

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, some cancers, anxiety and depression.[27]

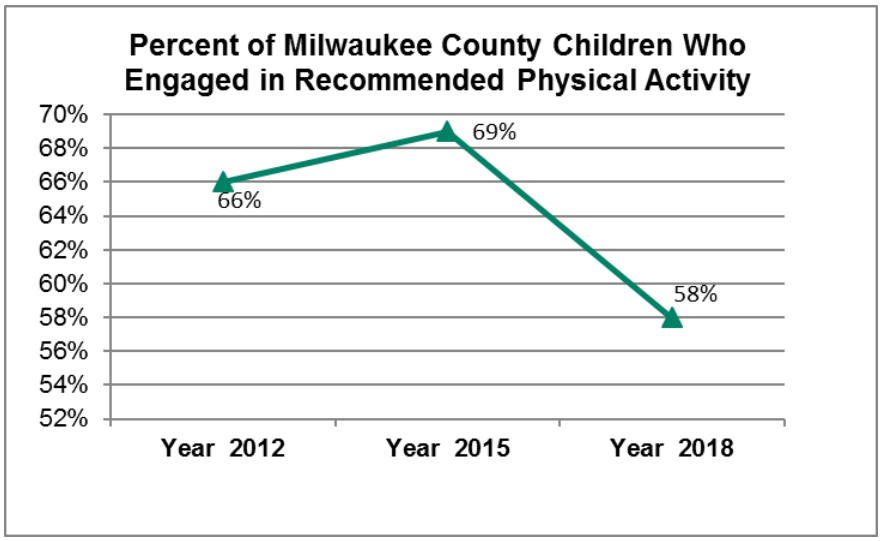
In 2018, 36% of respondents did moderate physical activity five times a week for 30 minutes. Thirty-five percent of respondents did vigorous activity three times a week for 20 minutes. Combined, 48% of respondents met the recommended amount of moderate or vigorous physical activity. Respondents who were male, 18 to 24 years old, African American, Hispanic, with a high school education or less or who were not overweight were more likely to report this. In 2018, 58% of respondents reported their 5 to 17-year-old child was physically active five times a week for at least 60 minutes each, a statistical decrease from 2015 and 2012. Of the respondents who reported their child was not physically active, 21% reported their child does not like to be physically active or the weather prevented their child from exercising. The table below shows respondents who reported engaging in physical activity (Source #1).

	Recommended Moderate or Vigorous Activity (Adult)		Physical Activity – 60 Mins/5 Times/Week (Child)	
	2015	**2018**	**2015**	**2018**
Milwaukee County	49%	48%	69%	58%
City of Milwaukee	48%	46%	70%	58%
South Shore	58%	45%	68%	59%
South West	48%	50%	70%	56%
North Shore	56%	49%	64%	65%
West	48%	46%	70%	63%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

[27] Centers for Disease Control and Prevention – Nutrition. Available at https://www.cdc.gov/nutrition/about-nutrition/why-it-matters.html. Accessed January 30, 2019.

As shown in the table below, from 2012 to 2018, the percent of Milwaukee County children who engaged in the recommended physical activity statistically worsened, as well as from 2015 to 2018 (Source #1).



- 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 significant? Inactive adults have a higher risk for obesity, coronary heart disease, type 2 diabetes, stroke, some cancers, depression and other health conditions.[28]

[28] Centers for Disease Control and Prevention – Physical Activity. Available at https://www.cdc.gov/physicalactivity/index.html. Accessed January 30, 2019.

Health risk factors: high blood pressure and high blood cholesterol

High blood pressure and cholesterol | In 2018, 28% of respondents reported high blood pressure, which has remained steady since 2006. From 2015 to 2018, there was a statistical increase in the overall percent of respondents who reported high blood cholesterol, but from 2006 to 2018, there was no statistical change. The table below shows adults who reported high blood pressure or high blood cholesterol in the past three years (Source #1).

	High Blood Pressure		High Blood Cholesterol	
	2015	**2018**	**2015**	**2018**
Milwaukee County	29%	28%	20%	24%
City of Milwaukee	30%	29%	18%	23%
South Shore	28%	32%	23%	24%
South West	32%	34%	22%	29%
North Shore	24%	24%	26%	25%
West	24%	22%	22%	21%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

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

Why is this significant? High blood pressure, the "silent killer" often lacks symptoms or warning signs and increases the risk for heart disease and stroke. Likewise, high cholesterol is also a risk factor for heart disease and stroke. Once identified and diagnosed, high blood pressure and cholesterol can be treated and controlled.[29]

Injury and Violence

Injury hospitalization | The 2017 Milwaukee County injury-related hospitalizations rate was 640.5 per 100,000, which is higher compared to the state (513.4 per 100,000). [30] The 2017 injury-related emergency department (ED) visit rate for Milwaukee County was 9,808.3 per 100,000, which is higher than the Wisconsin rate (7,257.0 per 100,000).[31] Milwaukee County residents who are African American had higher rates of injury-related hospitalizations and ED visits than the average rate. The 2016 injury-related death rate in Milwaukee County was 107.2 per 100,000 population, higher than the Wisconsin rate of 81.2 per 100,000 population, and much higher than the Healthy People 2020 goal of 53.3 per 100,000 population.[32] The top ranked cause of injury-related ED visits was poisoning.

[29] Centers for Disease Control and Prevention – High Blood Pressure and Cholesterol. Available at https://www.cdc.gov/vitalsigns/cardiovasculardisease/index.html. Accessed January 30, 2019.
[30] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019
[31] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019
[32] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019

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

  Why is this significant? Injuries are a leading cause of death for people ages 1-44 in the United States. In 2013 alone, injuries cost the nation 671 billion dollars in lost productivity and medical care. Injuries can be prevented, and their consequences reduced for infants, children and adults.[33]

Youth injury | In 2017, the total number of injury hospitalizations among Milwaukee County youth aged 0-17 years was 240, which is a rate of 105.5 per 100,000, lower than the state rate of 124.7 per 100,000.[34] Also in 2017, the total number of injury emergency department (ED) visits among Milwaukee County youth was 22,826 – a rate of 10,035.7 per 100,000, higher than the state rate of 7,787.6 per 100,000.[35] Of the ED visits by Milwaukee County youth, 4,560 resulted from being struck by or striking against an object or another person.[36]

> **Why is this significant?** The leading cause of medical spending for children is injury treatment at nearly $11.5 billion annually in the United States. Almost nine million children aged 0 to 19 years are seen in EDs for injuries every year.[37]

Older adults injury | In 2017, the total number of injury emergency department (ED) visits among Milwaukee County adults aged 65 years and older was 9,061, which is a rate of 7,442.0 per 100,000, higher than the state rate of 7,054.0 per 100,000.[38] For Milwaukee County adults aged 80-84 years, the rate of injury-related hospitalizations due to falls was 6,104.7 per 100,000, higher than the Wisconsin rate of 5,886.1 per 100,000 population.[39] Also in 2017, the rate of injury-related hospitalizations due to falls among Milwaukee County adults aged 85+ years was 8,494.2 per 100,000 population compared to the higher state rate of 9,441.7 per 100,000.[40]

> **Why is this significant?** 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.[41]

[33] Centers for Disease Control and Prevention – Injury Prevention and Control. Available at https://www.cdc.gov/injury/wisqars/overview/key_data.html. Accessed March 1, 2019.
[34] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019
[35] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019
[36] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019
[37] Centers for Disease Control and Prevention – Protect the Ones You Love: Child Injuries are Preventable. Available at http://www.cdc.gov/safechild/. Accessed March 1, 2019.
[38] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019
[39] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019
[40] Wisconsin Interactive Statistics on Health (WISH), Available at https://www.dhs.wisconsin.gov/wish/index.htm. Accessed March 1, 2019
[41] 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, 2019.

Sexual Violence | Sexual violence is defined as sexual activity when consent is not obtained or not given freely.[42] The rate of rape for Milwaukee County was 34.55 per 100,000 in 2017, higher than the state rate of 25.36 per 100,000.[43] 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 significant?** Sexual violence can have harmful and lasting consequences for victims, families, and communities including, but not limited to, unintended pregnancy, sexually transmitted infections, long term physical consequences, immediate and chronic psychological consequences, health behavior risks and financial cost to victims, families and communities.[44]

Other violence | From 2015 to 2018, there was a statistical increase in the overall percent of respondents who reported a personal safety issue. However, from 2006 to 2018, there was no statistical change. Male respondents were more likely to report a personal safety issue (Source #1). The violent crime rate in Milwaukee County has increased, but not significantly (Source #2). Violence was ranked a top health issue among community members and key stakeholders (Sources #1, #3). The table on the next page shows respondents who reported they were afraid for their safety, pushed, kicked, slapped, or hit in the past year (Source #1)

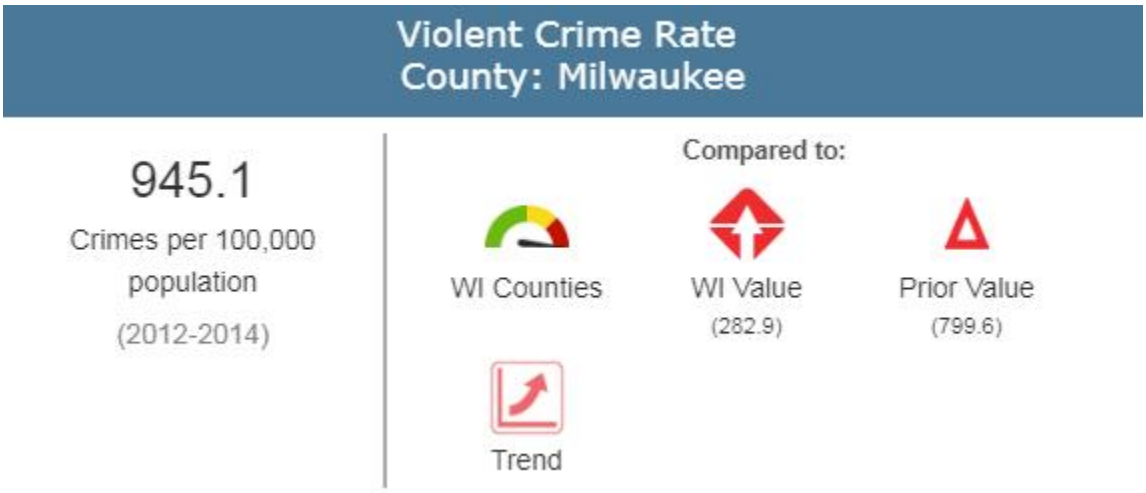
	Personal Safety Issues	
	2015	**2018**
Milwaukee County	8%	14%
City of Milwaukee	9%	16%
South Shore	10%	6%
South West	8%	5%
North Shore	7%	9%
West	9%	9%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

[42] Centers for Disease Control and Prevention – Violence Prevention: Sexual Violence. Available at https://www.cdc.gov/violenceprevention/sexualviolence/. Accessed February 25, 2019.
[43] Wisconsin Department of Justice – UCR Sex Offense Data. Available at https://www.doj.state.wi.us/dles/bjia/ucr-sex-offense-data. Accessed February 25, 2019.
[44] Centers for Disease Control and Prevention -Violence Prevention/Sexual Violence: Consequences. Available at https://www.cdc.gov/violenceprevention/sexualviolence/consequences.html. Accessed February 25, 2019.

As shown below, when compared to other Wisconsin counties, the 2012-2014 violent crime rate in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin averages. The rate is higher than the prior value, but there has not been a statistically significant increase over time (Source #2).

A violent crime is a crime in which the offender uses or threatens to use violent force upon the victim. According to the FBI's Uniform Crime Reporting Program, violent crime includes four offenses: murder and nonnegligent manslaughter, rape, robbery and aggravated assault (Source #2).



Why is this significant? Violence negatively impacts communities by reducing productivity, decreasing property values and disrupting social services (Source #2). Violence has a lasting effect throughout one's life. Survivors of violence may suffer from physical, emotional, social and other health problems.[45]

Reproductive Health

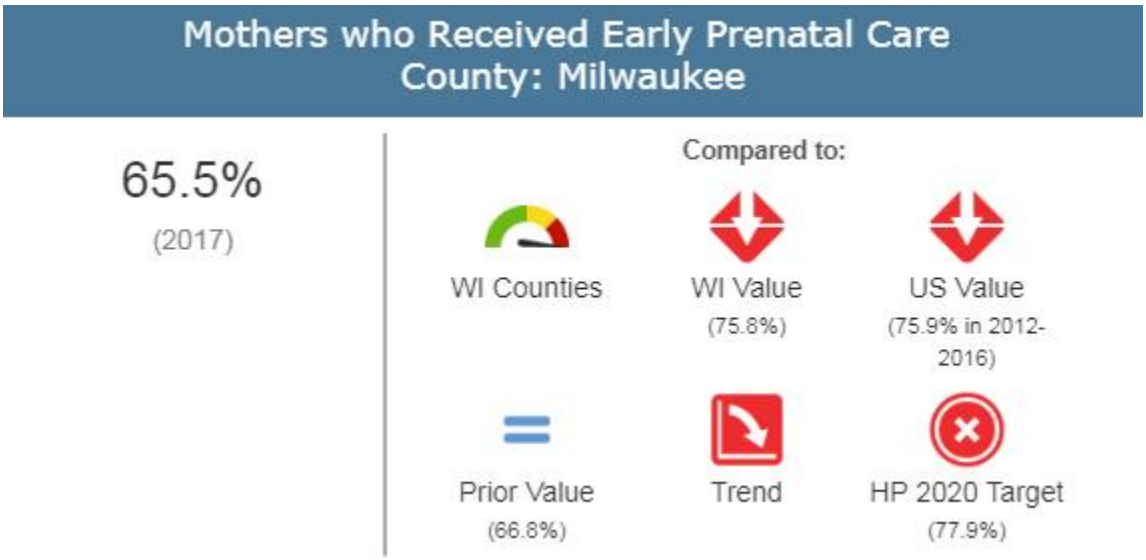
Pap smear | From 2003 to 2015, the number of women who reported having a pap smear in the past three years decreased significantly (Source #1). The graphic below shows the percentage of women aged 18 and older who responded that they received a pap smear in the past three years. As shown below, the 2015 rate of women who have received a pap smear within three years in Milwaukee County is lower than the prior value, and there has been a significant decrease over time (Source #2).

[45] Centers for Disease Control and Prevention – Violence Prevention. Available at https://www.cdc.gov/violenceprevention/. Accessed February 20, 2019.

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

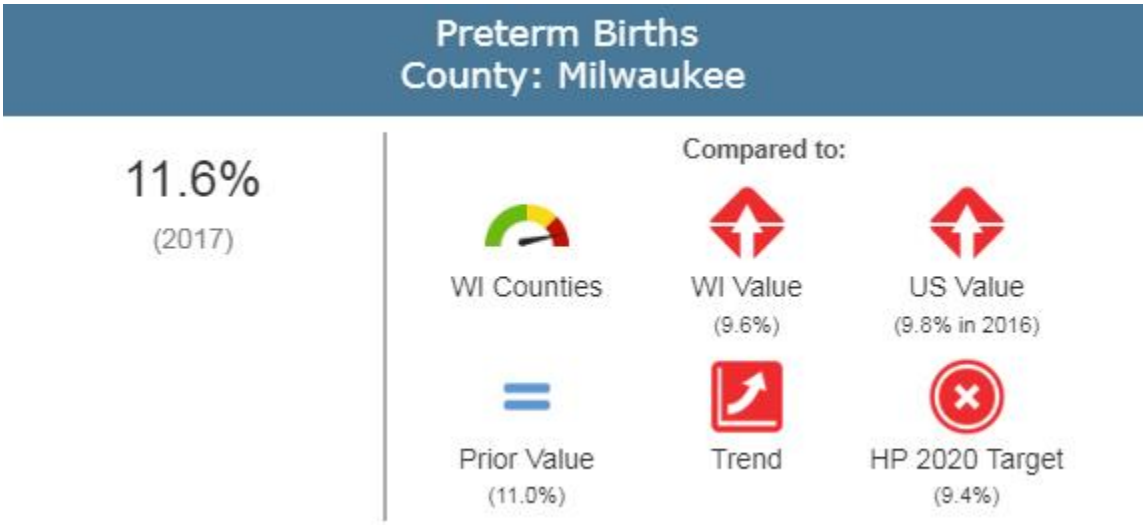
  Why is this significant? The pap smear is a screening test used to detect cancer and pre-cancerous conditions of the cervix. Pre-cancerous changes can often be treated, thus preventing cervical cancer. Improving pap smear rates can also lead to early detection of cervical cancer, which has a better survival rate if treated in early stages compared to later stages (Source #2).

Births receiving early prenatal care | In 2017, the percent of births receiving early (first trimester) prenatal care in Milwaukee County was 65.5%, lower compared to the state (75.8%). As shown below, when compared to other Wisconsin counties, the 2017 rate of mothers who received early prenatal care in Milwaukee County is in the worst quartile. The rate is lower (worse) than the Wisconsin and US averages. The rate is not statistically significant from the prior value, but there has been a significant decrease over time. The rate does not meet the *Healthy People 2020* target (Source #2).



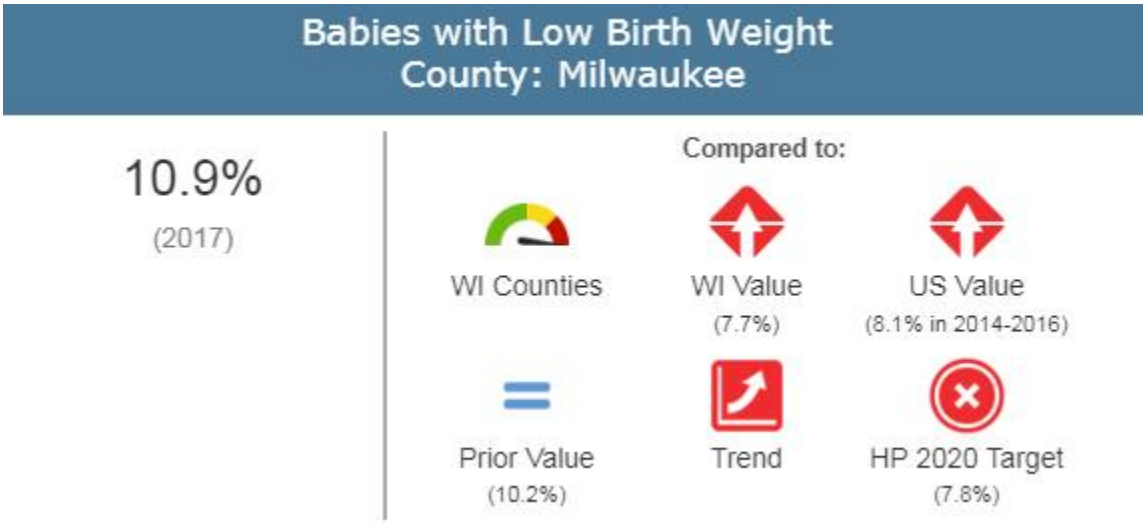
- The *Healthy People 2020* target for births receiving first trimester care is 77.9%.

Preterm births | In 2017, the percent of mothers with premature births in Milwaukee County was 11.6%, higher compared to the state (9.6%). Premature birth is defined as births occurring before 37 weeks gestation. As shown below, when compared to other Wisconsin counties, the 2017 preterm birth rate in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin and US averages. The rate is not statistically significant from the prior value, but there has been a significant increase over time. The rate does not meet the *Healthy People 2020* target (Source #2).



- The *Healthy People 2020* target for premature births is 9.4%.

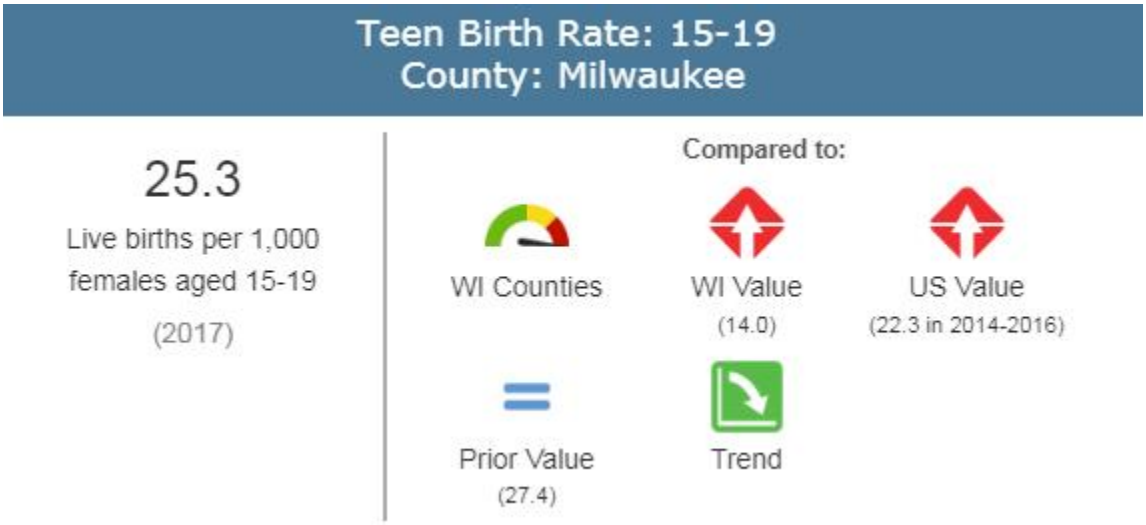
Low birth weight | In 2017, the percent of mothers with low birth weight births (less than 2,500 grams or approximately 5.5 pounds) in Milwaukee County was 10.9% and was higher compared to the state (7.7%). As shown below, when compared to other Wisconsin counties, the 2017 rate of babies with low birth rate in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin and US averages. The rate is not statistically significant from the prior value, but there has been a significant increase over time. The rate does not meet the *Healthy People 2020* target (Source #2).



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

  Why is this significant? Preconception and early prenatal care improves mother and infant outcomes. Babies born prematurely (three weeks or earlier than their due date) or with a low birth weight (less than 2,500 grams or about 5.5 pounds) experience a greater risk for an adverse outcome including a serious disability or death. In 2015, preterm birth and low birth weight accounted for about 17% of infant deaths.[46]

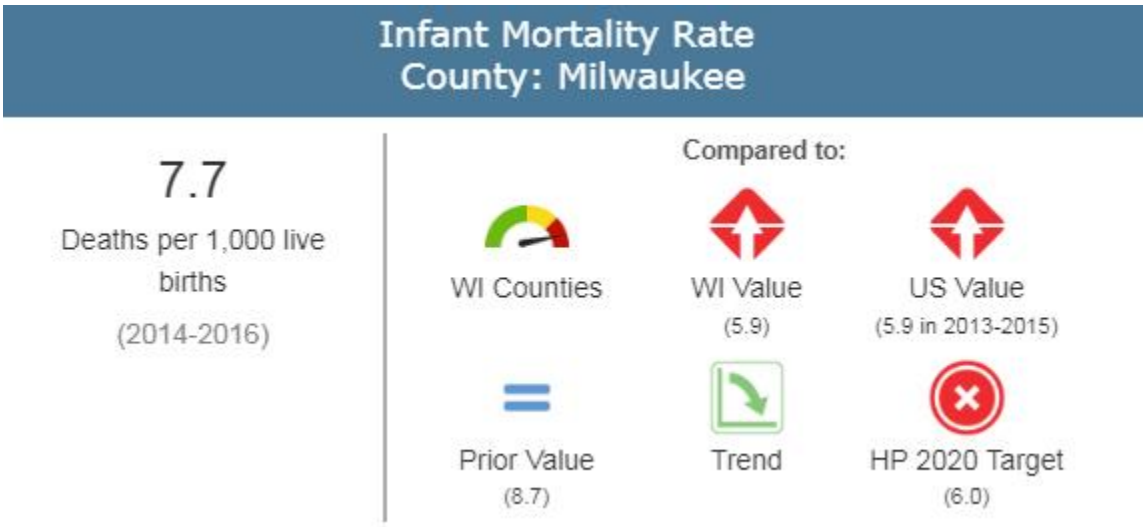
Birth rate to teens| In 2017, births among Milwaukee County females aged 15-19 years was 25.3 per 1,000 females, higher than the state rate of 14.0 births per 1,000 females. As shown below, when compared to other Wisconsin counties, the 2017 teen birth rate in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin and US averages. The rate is not statistically significant from the prior value, but there has been a statistically significant decrease over time (Source #2).



Why is this significant? 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.[47]

[46] Centers for Disease Control and Prevention – Reproductive Health: Preterm Birth. Available at https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm. Accessed March 1, 2019.
[47] Centers for Disease Control and Prevention – Reproductive Health: About Teen Pregnancy. Available at https://www.cdc.gov/teenpregnancy/about/index.htm. Accessed March 1, 2019.

Infant mortality | From 2014-2016, the rate of infants dying before their first birthday in Milwaukee County was 7.7 deaths per 1,000 live births, higher than the statewide rate of 5.9 deaths per 1,000 live births. As shown below, when compared to other Wisconsin counties, the 2014-2016 infant mortality rate in Milwaukee County is in the worst quartile. The rate is higher than the Wisconsin and US averages. The rate is not statistically significant from the prior value, and there has been a non-significant decrease over time. Although trending down from previous rates, the current rate still does not meet the *Healthy People* 2020 target (Source #2).



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

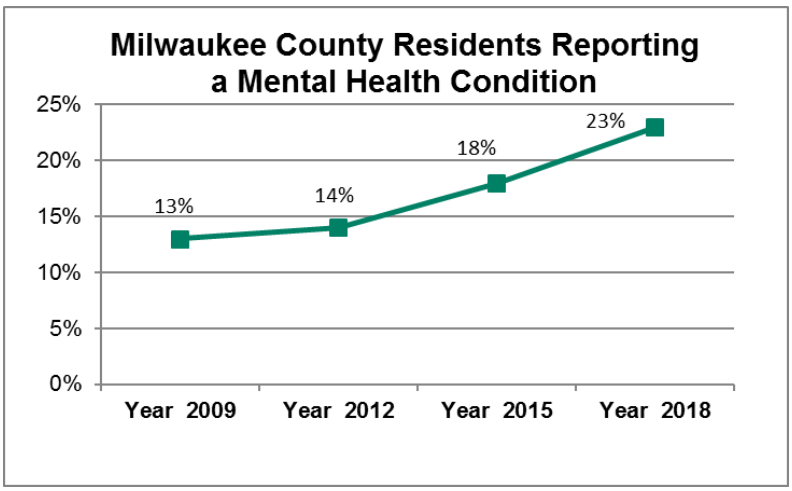
Mental health

Mental health conditions | In 2018, 8% of respondents reported they always or nearly always felt sad/blue/depressed in the past month, which has remained steady since 2006. In 2018, 5% of respondents reported their child always or nearly always felt sad/blue/depressed in the past month, which has remained steady since 2006. In 2018, 23% of Milwaukee County residents reported a mental health condition, which has been statistically increasing from 13% in 2009 (Source #1). Mental health was ranked a top health issue among key stakeholders (Source #3). The table below on the next page respondents who reported mental health issues or conditions (Source #1).

	Always/Nearly Always Felt Sad/Depressed Past 30 Days (Adult)		Always/Nearly Always Felt Sad/Depressed Past 6 Months (Child)		Mental Health Condition (Adult)	
	2015	2018	2015	2018	2015	2018
Milwaukee County	7%	8%	3%	5%	18%	23%
City of Milwaukee	8%	7%	3%	6%	19%	26%
South Shore	7%	9%	3%	4%	17%	18%
South West	6%	8%	4%	1%	16%	17%
North Shore	5%	4%	6%	<1%	14%	15%
West	8%	7%	4%	3%	18%	26%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

As shown below, from 2009 to 2018, the percent of Milwaukee County adults who reported a mental health condition statistically increased, as well as from 2015 to 2018 (Source #1).



Why is this significant? Mental health conditions are associated with chronic diseases such as cardiovascular disease, diabetes and obesity, and related to risk behaviors for chronic disease, such as physical inactivity, smoking, excessive drinking and insufficient sleep.[48]

Suicide | In 2018, 6% of respondents they considered suicide in the past year, which has remained steady since 2006. The table below shows respondents who reported feeling so overwhelmed in the past year that they considered suicide (Source #1).

	Considered Suicide Past Year (Adult)	
	2015	**2018**
Milwaukee County	6%	6%
City of Milwaukee	8%	7%
South Shore	3%	6%
South West	4%	6%
North Shore	5%	1%
West	4%	5%

Key: =Improving, statistically significant =Worsening, statistically significant =No change or not statistically significant

- The *Healthy People 2020* target is 10.2 suicides 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 decrease risk factors and promote resilience.[49]

[48] Centers for Disease Control and Prevention – Mental Health. Available at https://www.cdc.gov/mentalhealth/learn/index.htm. Accessed January 30, 2019.
[49] Centers for Disease Control and Prevention – Suicide Prevention. Available at https://www.cdc.gov/violenceprevention/suicide/index.html. Accessed January 30, 2019.

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

During 2019, 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*[50] (see Appendix E for details)

Using these criteria, Advocate Aurora Milwaukee County hospitals have prioritized the significant health needs to address in our 2012-2022 implementation strategies:

- Access and coverage
- Behavioral health
- Social determinants of health

There are general reasons for our hospitals not to address a need that has been identified.

- Resource constraints,
- Other facilities or organizations in the community are addressing the need,
- A lack of identified effective interventions to address the need.

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

Approval of CHNA by Governing Body

This Community Health Needs Assessment (CHNA) Report was adopted by the Aurora Health Care Community Board of the Advocate Aurora Health Board of Directors on May 14th, 2019.

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 B. 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 individual hospital Implementation Strategies.

Community Feedback Mechanism

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.”

Appendices

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

The report is available at aurora.org/commbenefits

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

Respondents were scientifically selected so that the survey would be representative of all adults 18 years old and older. The sampling strategy was two-fold. 1) A random-digit-dial landline sample of telephone numbers which included listed and unlisted numbers. The respondent within each household was randomly selected by computer based on the number of adults in the household (n=647). 2) A cell phone-only sample where the person answering the phone was selected as the respondent (n=665). At least eight attempts were made to contact a respondent in both samples. Screener questions verifying location were included.

A total of 1,312 telephone interviews were completed between February 20th, 2018 and May 12th, 2018. With a sample size of 1,312, we can be 95% sure that the sample percentage reported would not vary by more than ±3 percent from what would have been obtained by interviewing all persons 18 years old and older who lived in Milwaukee County. When applicable, the data was compared with measures from the *Behavioral Risk Factor Surveillance System* (BRFSS) and indicators established by *Healthy People 2020*.

When using percentages from this study, it is important to keep in mind what each percentage point, within the margin of error, actually represents in terms of the total adult population. One percentage point equals approximately 7,220 adults.

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

Partners & Contracts: This shared report is sponsored by the health system members of the Milwaukee Health Care Partnership: Advocate Aurora Health, Ascension Wisconsin, Children's Hospital of Wisconsin and Froedtert & Medical College of Wisconsin in partnership with the Center for Urban Population Health. The data was analyzed and prepared by JKV Research, LLC. Data collection was conducted by Management Decisions Incorporated.

Appendix B | Health Compass Milwaukee (Source #2)

healthcompassmilwaukee.org

Publicly available data sources used in Health Compass Milwaukee

Source	Description
U.S. Census Data (CENSUS)	The U.S. Census Bureau takes a census of the entire United States every 10 years, as mandated by the U.S. Constitution. While originally used for apportionment of the representatives for the U.S. House of Representatives, the census has evolved to serve many other purposes, including population-based research. *Source: United States Department of Commerce, US Census Bureau*
Wisconsin Department of Health Services (DHS)	The Wisconsin Department of Health Services (DHS), specifically the Division of Public Health (DPH), is the state department responsible for public health in Wisconsin. For the *Milwaukee Health Compass*, DHS provided data to quantify radon risk, chlamydia rate (monitored through the Wisconsin STD Program) and HIV infection risk (monitored through the Wisconsin AIDS/HIV Program). *Source: Wisconsin Department of Health Services*
Wisconsin Family Health Survey (FHS)	The Wisconsin Family Health Survey (FHS) is an annual survey carried out by the DHS, DPH, Office of Health Informatics. Conducted by the University of Wisconsin Survey Center, FHS is used to assess health coverage, health status, health-related activity limitations, chronic conditions, and health services utilization. All FHS data were adjusted using survey sampling weights (or reciprocals of selection probabilities for sampling units). To best measure specific health determinants, individual level data were purchased directly from DHS and contained only responses from within Milwaukee County. *Source: Wisconsin Department of Health Services*
Behavioral Risk Factor Surveillance System (BRFS)	The Behavioral Risk Factor Surveillance System is a system of health surveys conducted by 54 state and territory health departments and coordinated by the U.S. Centers for Disease Control and Prevention (CDC). BRFSS uses dual landline and cell phone samples to conduct interviews with scientifically selected adults aged 18 and older. Annual BRFSS data files are weighted by CDC to represent state populations of non-institutionalized adults. *Source: Wisconsin Department of Health Services*

Partners & Contracts: This shared secondary data source is sponsored by the health system members of the Milwaukee Health Care Partnership: Advocate Aurora Health, Ascension Wisconsin, Children's Hospital of Wisconsin and Froedtert & Medical College of Wisconsin in partnership with the Center for Urban Population Health.

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

The report is available at aurora.org/commresearch

Data Collection and Analysis: Eighty key informants were interviewed in forty one-on-one interviews and four focus groups in between April and June of 2018. The organizations were selected based on the following criteria:

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

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

Summary of the organizations representing the broad interest of the community

Organization	Description of the organizations *The description is based on information provided on the organization's website, accessed April 3, 2019.*
AIDS Resource Center of Wisconsin	The AIDS Resource Center of Wisconsin is at the forefront of HIV prevention, care and treatment and is dedicated to providing quality medical, dental, mental health and social services for all people with HIV.
Aurora Walker's Point Community Clinic	Provides primary care and behavioral health care access for uninsured individuals.
Boys & Girls Clubs of Greater Milwaukee	The mission of Boys & Girls Clubs of Greater Milwaukee is to inspire and empower all young people, especially those who need us most, to reach their full potential as productive, caring, responsible citizens.
Children's Health Alliance of Wisconsin, Milwaukee County Oral Health Task Force	The Wisconsin Oral Health Coalition is a dedicated group of more than 200 individuals, organizations and agencies addressing oral health access issues and working to improve oral health for all residents statewide.
Children's Hospital of Wisconsin	The region's only independent health care system dedicated solely to the health and well-being of children.
City of Milwaukee Office of Violence Prevention	The core mission of the Office of Violence Prevention is to reduce violence in Milwaukee. The Office of Violence Prevention provides strategic direction and oversight for City efforts to reduce risk of violence through linked strategies in partnership with government, non-profit, neighborhood, and faith organizations.
Community Advocates	Community Advocates mission is to provide individuals and families with advocacy and services to meet their basic needs, so they may live in dignity.
CORE/El Centro	CORE El Centro offers healing to all individuals and communities and has a passion to create access for those who are low of income.
Gerald L. Ignace Indian Health Center	Provides a variety of services that support the whole person; from social, behavioral, cultural, spiritual, to fitness, nutrition and diabetes education services.
Greater Milwaukee Foundation	The Greater Milwaukee Foundation is made up of thousands of charitable funds, each created by donors to serve the charitable purposes they specify.

Housing Authority of the City of Milwaukee	The mission of the Housing Authority of the City of Milwaukee (HACM) is to foster strong, resilient and inclusive communities by providing a continuum of high-quality housing options that support self-sufficiency, good quality of life, and the opportunity to thrive.
IMPACT Inc.	IMPACT's family of services help restore the health and productivity of individuals, organizations and workplaces leading to an improved quality of life for our entire community.
Interfaith Older Adult Services	Interfaith Older Adult Services is a one-stop resource center that assists family caregivers with personal concerns related to caregiving and their older adult care needs (age 60 plus). Provides telephone assistance; information and referral; classes; advocacy; a respite program; and a resource library.
Journey House	Journey House empowers families on Milwaukee's near Southside to move out of poverty by offering adult education, youth development, workforce readiness, and family engagement.
Lutheran Social Services of Wisconsin and Upper Michigan	Since 1882, Lutheran Social Services of Wisconsin and Upper Michigan has empowered communities to better their health and well-being.
Mental Health America of Wisconsin	Mental Health America of Wisconsin is an affiliate of the nation's leading community-based non-profit dedicated to helping all Americans achieve wellness by living mentally healthier lives.
Milwaukee County Behavioral Health Division	Milwaukee County has provided inpatient mental health services for our residents for more than 100 years.
Milwaukee County Department of Health and Human Services	Provides disabilities services, behavioral health, youth and family services, housing and energy assistance.
Milwaukee County Department on Aging	The Milwaukee County Department on Aging was created in 1991 to provide a single point of access to services for people aged 60 and over.
Milwaukee County District Attorney's Office	The mission of the Milwaukee County District Attorney's Office is to promote public safety through the fair and just prosecution of criminal offenses; to protect the health and welfare of children who are victims of child abuse and neglect; to advocate for justice for the victims of crimes; to safeguard the rule of law; and to promote citizens' participation in sustainable neighborhoods by treating all persons who come in contact with the criminal justice system with fairness, dignity and respect.
Milwaukee County Office of Emergency Management	The Milwaukee County Office of Emergency Management includes five program areas that coordinate public safety services, allowing for the fusion of data, assets, monies and staff to sustain healthy and productive localities within our County.
Milwaukee LGBT Community Center	The Milwaukee LGBT Community Center is at the heart of the community delivering educational and community-building services that meet the needs of Lesbian, Gay, Bisexual, Transgender (LGBT+) people living in the Greater Milwaukee Area.
Milwaukee Police Department	The Milwaukee Police Department works in partnership with the community to create and maintain neighborhoods capable of sustaining civic live.
Milwaukee Public Schools	Milwaukee Public Schools is committed to accelerating student achievement, building positive relationships between youth and adults and cultivating leadership at all levels.
Milwaukee Succeeds	Milwaukee Succeeds unites our community around a commitment to support strategies that will achieve our shared vision of success for every child, in every school, cradle to career.

Milwaukee Urban League	The Milwaukee Urban League offers numerous programs that are designed to help African Americans, and other people of color, achieve civil rights, and social and economic equality so they can become more self-reliant members of society.
Social Development Commission	For more than 50 years, the Social Development Commission has served as a planner, coordinator, and provider of human service programs for low-income individuals and families in Milwaukee County.
Sojourner Family Peace Center	Established in 1975, the mission of Sojourner Family Peace Center is to transform lives impacted by domestic violence.
Southeast Asian Educational Development (SEAED) of Wisconsin, Inc.	SEAED's mission is to create a thriving Southeast Asian American community.
Southside Organizing Center	The Southside Organizing Center is a neighborhood-based organization dedicated to the development and sustainability of Milwaukee's near south side neighborhoods.
United Community Center	The United Community Center's mission is to provide programs to Hispanics and near south side residents of all ages in the areas of education, cultural arts, recreation, community development, and health and human services.
United Way of Greater Milwaukee and Waukesha County	United Way fights for the health, education, and financial stability of every person in our local community.
Whole Health Clinical Group	The Whole Health Clinical Group provides recovery-oriented services and advocacy for more than 800 people living with mental illness in Southeastern Wisconsin.
YMCA Southeast Wisconsin	The YMCAs of Southeast Wisconsin work with neighbors to make sure that everyone, regardless of age, income or background, has the opportunity to learn, grow, and thrive.
Zilber Family Foundation	The Zilber Family Foundation is dedicated to enhancing the well-being of individuals, families, and neighborhoods. The Foundation supports nonprofit organizations to: address basic needs and help ensure personal safety; increase access to social and economic opportunity; and improve the quality of life in neighborhoods.

The key informant interviews were conducted by the health system members of the Milwaukee Health Care Partnership: Advocate Aurora Health, Ascension Wisconsin, Children's Hospital of Wisconsin and Froedtert & Medical College of Wisconsin. The interviewers used a standard interview script that included the following elements:

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

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

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

The top five health issues that emerged as key priorities for Milwaukee County were:

1) mental health
2) access to health care
3) violence
4) substance use
5) nutrition and healthy food

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

1. **Mental health:** Key community partners to improve health include the health systems and health care providers, schools, law enforcement, Milwaukee's Behavioral Health Division, community organizations like Sojourner Family Peace Center and St. A's, housing advocates, and families and community members.

2. **Access to health care:** Key informants named the following organizations, sectors, and community members as important partners to improving Mental Health in Milwaukee County: The non-profit sector; health systems; businesses interested in public health issues; schools; community health workers, community health advisors and lay people who know the community; nontraditional partners like those organizing around housing, employment, and other social determinants of health; faith leaders; community centers; Milwaukee Latino Health Coalition; and Boys and Girls Clubs.

3. **Violence:** Health systems and providers, philanthropic organizations, the business community, faith communities, public health, law enforcement, the City of Milwaukee, the non-profit sector, housing, employment, young people and other community residents, the Milwaukee Health Care Partnership, Sojourner Family Peace Center, and the Alma Center were named as important partners to convene to improve health related to violence in the county.

4. **Substance Use:** Interviewees identified community partners in Milwaukee that are working to address the issues of substance use. These groups include the Office of Violence Prevention, the Milwaukee Police Department, Alder people, those with life experience, politicians, health systems, Mental Health Taskforce, Mental Health America of Wisconsin, Milwaukee Health Care Partnerships (MHCP), health insurance companies, Medicaid, families, Senior centers, the County Park System, the chamber of commerce, local health departments, sports teams, the Benedict Center, AIDS Resource Center of Wisconsin, fire departments, and faith-based communities.

5. **Nutrition and healthy food:** Health care systems, Federally Qualified Health Centers (FQHC), Metropolitan Milwaukee Association of Commerce, grocery stores, philanthropy community, the education sector, the non-profit sector, sports teams, faith communities, and residents were named as key partners to improve Nutrition and Healthy Food access in the county. Some respondents named specific organizations like Walnut Way, Alice's Garden and other urban garden projects, the Hmong American Women's Association, Southeast Asian Education Development, Inc., and We Got This as important organizations to partner with around these issues.

Partners & Contracts: This shared key informant interview report is sponsored by the health system members of the Milwaukee Health Care Partnership: Advocate Aurora Health, Ascension Wisconsin, Children's Hospital of Wisconsin and Froedtert & Medical College of Wisconsin. The report was prepared by the Center for Urban Population Health.

Appendix D | Milwaukee County Community Health Survey Report Summary: 2018

Milwaukee County Community Health Survey Summary

This research provides valuable behavioral data, lifestyle habits, and the prevalence of risk factors and disease conditions of area residents. This summary was prepared by JKV Research for Ascension, Aurora Health Care, Children's Hospital of Wisconsin and Froedtert Health in partnership with the Center for Urban Population Health.

Health Care Coverage					
Milwaukee County	2006	2009	2012	2015	2018
Personally Not Currently Covered					
18 and Older	11%	12%	14%	4%	9%
18 to 64 Years Old	13%	15%	16%	5%	11%
At Least One Household Member Not Covered in Past Year	26%	25%	21%	14%	8%
Other Research: (2016)				*WI*	*U.S.*
Personally Not Covered (Currently)				*9%*	*10%*

Unmet Care in Past Year				
Milwaukee County	2012	2015	2018	
Someone in Household in Past Year				
Prescription Drug Not Taken Due to Cost	11%	11%	12%	
Unmet Medical Care Need	11%	12%	8%	
Unmet Dental Care Need	19%	18%	15%	
Unmet Mental Health Care Need	4%	4%	3%	

Health Information and Services					
Milwaukee County	2006	2009	2012	2015	2018
Have a Primary Care Physician				86%	82%
Primary Health Services					
Doctor/Nurse Practitioner's Office	77%	73%	70%	65%	62%
Urgent Care Center	3%	6%	7%	12%	18%
Hospital Emergency Room	6%	7%	7%	11%	6%
Public Health Clinic/Com. Health Center	5%	7%	6%	4%	2%
Hospital Outpatient	3%	2%	3%	2%	2%
No Usual Place	5%	4%	6%	5%	8%
Advance Care Plan	32%	31%	29%	31%	36%
Dental Checkup (Past Year)	63%	60%	56%	62%	63%
Flu Vaccination (Past Year)					
18 and Older	36%	40%	38%	48%	47%
65 and Older	71%	69%	63%	76%	75%
Other Research: (2016)				*WI*	*U.S.*
Flu Vaccination (65 and Older, Past Year)				*50%*	*59%*
Dental Checkup (Past Year)				*73%*	*66%*

Tobacco Use in Past Month					
Milwaukee County	2006	2009	2012	2015	2018
Cigarette Smokers	26%	25%	24%	19%	16%
Cigars, Cigarillos or Little Cigars				5%	6%
Electronic Cigarettes				6%	4%
Other Research: (2016)				*WI*	*U.S.*
Cigarette Smokers				*17%*	*17%*
Electronic Cigarettes				*5%*	*5%*

Smoking Policy at Home				
Milwaukee County	2009	2012	2015	2018
Not Allowed Anywhere	64%	74%	75%	78%
Allowed in Some Places/at Some Times	14%	10%	10%	10%
Allowed Anywhere	4%	4%	2%	2%
No Rules Inside Home	18%	12%	13%	10%

Health Conditions in Past 3 Years					
Milwaukee County	2006	2009	2012	2015	2018
High Blood Pressure	27%	29%	30%	29%	28%
High Blood Cholesterol	22%	22%	21%	20%	24%
Mental Health Condition		13%	14%	18%	23%
Diabetes	8%	9%	10%	11%	10%
Heart Disease/Condition	8%	9%	8%	9%	8%
Asthma (Current)	10%	12%	12%	14%	12%

Physical Health and Nutrition					
Milwaukee County	2006	2009	2012	2015	2018
Physical Activity/Week					
Moderate Activity (5 Times/30 Min)	33%	31%	35%	39%	36%
Vigorous Activity (3 Times/20 Min)	22%	19%	24%	31%	35%
Recommended Moderate or Vigorous	45%	41%	47%	49%	48%
Overweight Status					
Overweight (BMI 25.0+)	63%	66%	66%	69%	64%
Obese (BMI 30.0+)	28%	32%	33%	38%	38%
Fruit Intake (2+ Servings/Day)	61%	58%	62%	62%	56%
Vegetable Intake (3+ Servings/Day)	24%	21%	26%	28%	30%
At Least 5 Fruit/Vegetables/Day	35%	31%	35%	38%	37%
Other Research: (2016)				*WI*	*U.S.*
Overweight (BMI 25.0+)				*67%*	*65%*
Obese (BMI 30.0+)				*31%*	*30%*

Women's Health					
Milwaukee County	2006	2009	2012	2015	2018
Mammogram (50+; Within Past 2 Years)	78%	78%	77%	81%	77%
Bone Density Scan (65 and Older)	67%	73%	71%	82%	83%
Other Research: (2016)				*WI*	*U.S.*
Mammogram (50 - 74; Within Past 2 Years)				*80%*	*78%*

Colorectal Cancer Screenings (50 and Older)					
Milwaukee County	2006	2009	2012	2015	2018
Blood Stool Test (Within Past Year)	23%	--	14%	14%	13%
Sigmoidoscopy (Within Past 5 Years)		10%	10%	11%	7%
Colonoscopy (Within Past 10 Years)		58%	61%	67%	67%
Screening in Recommended Time Frame		61%	67%	72%	72%
Other Research: (2016)				*WI*	*U.S.*
Screening in Recommended Time Frame				*74%*	*68%*

Mental Health Status					
Milwaukee County	2006	2009	2012	2015	2018
Felt Sad, Blue or Depressed					
Always/Nearly Always (Past Month)	8%	8%	7%	7%	8%
Considered Suicide (Past Year)	6%	5%	5%	6%	6%

Alcohol Use in Past Month					
Milwaukee County	2006	2009	2012	2015	2018
Binge Drinker	19%	20%	31%	32%	32%
Other Research: (2016)				*WI*	*U.S.*
Binge Drinker				*25%*	*17%*

Household Problems in Past Year					
Milwaukee County	2006	2009	2012	2015	2018
Alcohol	3%	3%	2%	2%	2%
Marijuana			2%	2%	1%
Cocaine, Heroin or Other Street Drugs			<1%	<1%	2%
Misuse of Prescription or OTC Drugs			<1%	2%	1%
Gambling			1%	1%	<1%

Top Community Health Issues	
Milwaukee County	2018
Chronic Disease or Cancer	34%
Illegal Drug Use or Prescription/OTC Drug Abuse	27%
Access to Health Care	20%
Infectious Diseases	17%
Violence or Crime	16%
Overweight or Obesity	15%
Mental Health or Depression	15%
Alcohol Use or Abuse	9%
Access to Affordable Healthy Food	6%
Tobacco Use	5%
Environmental Issues	5%
Affordable Health Care	4%
Lack of Physical Activity	4%
Lead Poisoning	3%
Driving Problems/Aggressive Driving/Drunk Driving	3%

Personal Safety in Past Year					
Milwaukee County	2006	2009	2012	2015	2018
Afraid for Their Safety	10%	9%	7%	6%	9%
Pushed, Kicked, Slapped, or Hit	5%	6%	4%	3%	9%
At Least One of the Safety Issues	13%	12%	9%	8%	14%

Children in Household			
Milwaukee County	2012	2015	2018
Personal Health Doctor/Nurse Who			
Knows Child Well and Familiar with History	89%	91%	95%
Visited Personal Doctor/Nurse for			
Preventive Care (Past Year)	93%	92%	93%
Did Not Receive Care Needed (Past Year)			
Medical Care	2%	2%	3%
Dental Care	8%	9%	6%
Specialist	2%	1%	5%
Current Asthma	11%	11%	17%
Safe in Community/Neighborhood (Seldom/Never)	4%	5%	9%
Screen Time (2 or Fewer Hours per Day)			38%
Soda Consumption (0 in Past Week)			61%
Children 2 or Younger			
As Infant, Slept in Bed with Respondent/Other Person	8%	7%	11%
Children 5 to 17 Years Old			
Physical Activity (60 Min./5 or More Days/Week)	66%	69%	58%
Unhappy, Sad or Depressed in Past 6 Months			
Always/Nearly Always	7%	3%	5%
Experienced Some Form of Bullying (Past Year)	22%	18%	16%
Verbally Bullied	18%	16%	13%
Physically Bullied	10%	5%	6%
Cyber Bullied	2%	2%	3%

Overall Health and Health Care Key Findings

In 2018, 9% of respondents reported they were not currently covered by health care insurance; respondents who were male, 18 to 24 years old, African American, Hispanic, with a high school education or less, in the bottom 40 percent household income bracket or unmarried were more likely to report this. Eight percent of respondents reported someone in their household was not covered at least part of the time in the past year; respondents who were in the bottom 40 percent household income bracket or unmarried were more likely to report this. *From 2006 to 2018, the overall percent statistically remained the same for respondents 18 and older or 18 to 64 years old who reported no current personal health care coverage while from 2015 to 2018, there was a noted increase. From 2006 to 2018, the overall percent statistically decreased for respondents who reported someone in the household was not covered at least part of the time in the past year, as well as from 2015 to 2018.*

In 2018, 12% of respondents reported that someone in their household had not taken their prescribed medication due to prescription costs in the past year; respondents in the middle 20 percent household income bracket or in households with children were more likely to report this. Eight percent of respondents reported in the past year someone in the household did not receive the medical care needed; respondents in the bottom 40 percent household income bracket or in households with children were more likely to report this. Fifteen percent of respondents reported in the past year someone in the household did not receive the dental care needed; respondents in the bottom 60 percent household income bracket or in households without children were more likely to report this. Three percent of respondents reported in the past year someone in the household did not receive the mental health care needed. *From 2012 to 2018, the overall percent statistically remained the same for respondents who reported someone in their household had not taken their prescribed medication due to prescription costs or a household member did not receive the mental health care needed, as well as from 2015 to 2018. From 2012 to 2018, the overall percent statistically decreased for respondents who reported someone in their household did not receive the medical care needed or a household member did not receive the dental care needed, as well as from 2015 to 2018.*

In 2018, 82% of respondents reported they have a primary care physician they regularly see for check-ups and when they are sick; respondents who were female, 65 and older, non-white and non-African American, non-Hispanic, with at least some post high school education, in the top 40 percent household income bracket or married respondents were more likely to report a primary care physician. Sixty-two percent of respondents reported their primary place for health services when they are sick was from a doctor's or nurse practitioner's office while 18% reported urgent care center. Respondents who were female, 65 and older, white, non-Hispanic, with a college education, in the top 40 percent household income bracket or married respondents were more likely

to report a doctor's or nurse practitioner's office as their primary health care when they are sick. Respondents who were female, 25 to 44 years old, African American or non-Hispanic were more likely to report urgent care as their primary health care. Six percent of respondents reported hospital emergency room as their primary health care; respondents who were 35 to 44 years old, non-white and non-African American, with some post high school education or less or in the bottom 40 percent household income bracket were more likely to report this. Two percent of respondents each reported their primary place for health services when they are sick was a public health clinic/community health center or a hospital outpatient department. Thirty-six percent of respondents had an advance care plan; respondents who were female, 65 and older, white or non-Hispanic were more likely to report an advance care plan. *From 2015 to 2018, there was a statistical decrease in the overall percent of respondents reporting they have a primary care doctor, nurse practitioner, physician assistant or primary care clinic they regularly go to for checkups and when they are sick. From 2006 to 2018, there was a statistical decrease in the overall percent of respondents reporting their primary place for health services when they are sick was a doctor's or nurse practitioner's office while from 2015 to 2018, there was no statistical change. From 2006 to 2018, there was a statistical increase in the overall percent of respondents reporting their primary place was an urgent care center, as well as from 2015 to 2018. From 2006 to 2018, there was no statistical change in the overall percent of respondents reporting their primary place was a hospital emergency room while from 2015 to 2018, there was a statistical decrease. From 2006 to 2018, there was a statistical decrease in the overall percent of respondents reporting their primary place was a public health clinic or community health center, as well as from 2015 to 2018. From 2006 to 2018, there was no statistical change in the overall percent of respondents reporting their primary place was a hospital outpatient department, as well as from 2015 to 2018. From 2006 to 2018, there was a statistical increase in the overall percent of respondents who reported having an advance care plan, as well as from 2015 to 2018.*

In 2018, 63% of respondents reported a visit to the dentist in the past year. Respondents who were 35 to 44 years old, white, non-Hispanic, with a college education, in the top 40 percent household income bracket or married respondents were more likely to report a dental checkup in the past year. *From 2006 to 2018, there was no statistical change in the overall percent of respondents reporting a dental checkup in the past year, as well as from 2015 to 2018.*

In 2018, 47% of respondents had a flu vaccination in the past year. Respondents who were female, 65 and older, white, non-Hispanic, with a college education or married respondents were more likely to report a flu vaccination. *From 2006 to 2018, there was a statistical increase in the overall percent of respondents 18 and older who reported a flu vaccination in the past year while from 2015 to 2018, there was no statistical change. From 2006 to 2018, there was no statistical change in the overall percent of respondents 65 and older who reported a flu vaccination in the past year, as well as from 2015 to 2018.*

Health Risk Factors Key Findings

In 2018, out of six health conditions listed, the most often mentioned in the past three years was high blood pressure (28%), high blood cholesterol (24%) or a mental health condition (23%). Respondents who were 65 and older, white, non-Hispanic, with some post high school education, in the bottom 40 percent household income bracket, who were overweight or inactive were more likely to report high blood pressure. Respondents who were female, 65 and older, African American, non-Hispanic, with a high school education or less, in the bottom 40 percent household income bracket, who were overweight or inactive were more likely to report high blood cholesterol. Respondents who were female, 18 to 24 years old, African American, Hispanic, with a high school education or less, in the bottom 40 percent household income bracket, who were unmarried, not overweight, inactive, met the recommended amount of physical activity or smokers were more likely to report a mental health condition. Ten percent of respondents reported diabetes; respondents who were 65 and older, in the bottom 40 percent household income bracket, overweight, inactive or nonsmokers were more likely to report this. Eight percent reported they were treated for, or told they had heart disease/condition in the past three years; respondents who were 65 and older, white, non-Hispanic, with some post high school education, in the bottom 60 percent household income bracket, who were overweight or inactive were more likely to report this. Twelve percent reported current asthma; respondents who were female, 25 to 64 years old, non-Hispanic, in the bottom 40 percent household income bracket or unmarried were more likely to report this. *From 2006 to 2018, there was no statistical change in the overall percent of respondents who reported high blood pressure, diabetes, heart disease/condition or current asthma, as well as from 2015 to 2018. From 2006 to 2018, there was no statistical change in the overall percent of respondents who reported high blood cholesterol while from 2015 to 2018, there was a noted increase. From 2009 to 2018, there was a statistical increase in the overall percent of respondents who reported a mental health condition, as well as from 2015 to 2018.*

In 2018, 8% of respondents reported they always or nearly always felt sad, blue or depressed in the past month; respondents who were 25 to 64 years old, non-white and non-African American, with a high school education or less, in the bottom 40 percent household income bracket or in households without children were more likely to report this. Six percent of respondents felt so overwhelmed they considered suicide in the past year; respondents who were 18 to 44 years old, African American, non-Hispanic, with a high school education or less, in the bottom 40 percent household income bracket or unmarried respondents were more likely to report this. *From 2006 to 2018, there was no statistical change in the overall percent of respondents who*

reported they always or nearly always felt sad/blue/depressed in the past month or they considered suicide in the past year, as well as from 2015 to 2018.

Behavioral Risk Factors Key Findings

In 2018, 36% of respondents did moderate physical activity five times a week for 30 minutes. Thirty-five percent of respondents did vigorous activity three times a week for 20 minutes. Combined, 48% met the recommended amount of physical activity; respondents who were male, 18 to 24 years old, African American, Hispanic, with a high school education or less or who were not overweight were more likely to report this. *From 2006 to 2018, there was no statistical change in the overall percent of respondents who reported moderate physical activity five times a week for at least 30 minutes, as well as from 2015 to 2018. From 2006 to 2018, there was a statistical increase in the overall percent of respondents who reported vigorous physical activity three times a week for at least 20 minutes, as well as from 2015 to 2018. From 2006 to 2018, there was no statistical change in the overall percent of respondents who met the recommended amount of physical activity, as well as from 2015 to 2018.*

In 2018, 64% of respondents were classified as at least overweight while 38% were obese. Respondents who were 45 to 54 years old, non-white and non-African American, non-Hispanic, with some post high school education, in the top 40 percent household income bracket, who were married or inactive were more likely to be classified as at least overweight. Respondents who were female, 45 to 54 years old, non-white and non-African American, non-Hispanic, with some post high school education or inactive respondents were more likely to be obese. *From 2006 to 2018, there was no statistical change in the overall percent of respondents being at least overweight while from 2015 to 2018, there was a statistical decrease. From 2006 to 2018, there was a statistical increase in the overall percent of respondents being obese while from 2015 to 2018, there was no statistical change.*

In 2018, 56% of respondents reported two or more servings of fruit while 30% reported three or more servings of vegetables on an average day. Respondents who were female, 18 to 24 years old, white, Hispanic, not overweight or who met the recommended amount of physical activity were more likely to report at least two servings of fruit. Respondents who were female, 18 to 24 years old, Hispanic, with a college education, not overweight or who met the recommended amount of physical activity were more likely to report at least three servings of vegetables on an average day. Thirty-seven percent of respondents reported five or more servings of fruit/vegetables on an average day; respondents who were female, 18 to 24 years old, African American, Hispanic, with a college education, not overweight or who met the recommended amount of physical activity were more likely to report this. *From 2006 to 2018, there was a statistical decrease in the overall percent of respondents who reported at least two servings of fruit, as well as from 2015 to 2018. From 2006 to 2018, there was a statistical increase in the overall percent of respondents who reported at least three servings of vegetables while from 2015 to 2018, there was no statistical change. From 2006 to 2018, there was no statistical change in the overall percent of respondents who reported at least five servings of fruit/vegetables, as well as from 2015 to 2018.*

In 2018, 77% of female respondents 50 and older reported a mammogram within the past two years; married respondents were more likely to report this. Eighty-three percent of female respondents 65 and older had a bone density scan. *From 2006 to 2018, there was no statistical change in the overall percent of respondents 50 and older who reported having a mammogram within the past two years, as well as from 2015 to 2018. From 2006 to 2018, there was a statistical increase in the overall percent of respondents 65 and older who reported a bone density scan while from 2015 to 2018, there was no statistical change.*
In 2018, 13% of respondents 50 and older reported a blood stool test within the past year. Seven percent of respondents 50 and older reported a sigmoidoscopy within the past five years while 67% reported a colonoscopy within the past ten years. This results in 72% of respondents meeting the current colorectal cancer screening recommendations. Respondents in the top 60 percent household income bracket or married respondents were more likely to meet the recommendation. *From 2006 to 2018, there was a statistical decrease in the overall percent of respondents who reported a blood stool test within the past year while from 2015 to 2018, there was no statistical change. From 2009 to 2018, there was no statistical change in the overall percent of respondents who reported a sigmoidoscopy in the past five years while from 2015 to 2018, there was a statistical decrease. From 2009 to 2018, there was a statistical increase in the overall percent of respondents who reported a colonoscopy within the past ten years while from 2015 to 2018, there was no statistical change. From 2009 to 2018, there was a statistical increase in the overall percent of respondents who reported they had at least one of these tests in the recommended time frame while from 2015 to 2018, there was no statistical change.*

In 2018, 16% of respondents were current tobacco cigarette smokers; respondents who were 35 to 44 years old, non-Hispanic, with a high school education or less, in the bottom 40 percent household income bracket or unmarried respondents were more likely to be a smoker. *From 2006 to 2018, there was a statistical decrease in the overall percent of respondents who were current tobacco cigarette smokers, as well as from 2015 to 2018.*

In 2018, 78% of respondents reported smoking is not allowed anywhere inside the home. Respondents who were in the top 40 percent household income bracket, married, nonsmokers or in households with children were more likely to report smoking is

not allowed anywhere inside the home. *From 2009 to 2018, there was a statistical increase in the overall percent of respondents who reported smoking is not allowed anywhere inside the home, as well as from 2015 to 2018.*

In 2018, 6% of respondents used cigars, cigarillos or little cigars in the past month; respondents who were male, 25 to 54 years old, African American, with some post high school education or less or unmarried respondents were more likely to report this. Four percent of respondents used electronic cigarettes in the past month; respondents who were male, 25 to 34 years old, Hispanic, with some post high school education or unmarried respondents were more likely to report this. *From 2015 to 2018, there was no statistical change in the overall percent of respondents who reported in the past month they used cigars/cigarillos/little cigars. From 2015 to 2018, there was a statistical decrease in the overall percent of respondents who reported in the past month they used electronic cigarettes.*

In 2018, 32% of respondents were binge drinkers in the past month. Respondents 25 to 34 years old, with some post high school education, in the top 40 percent household income bracket or unmarried respondents were more likely to have binged at least once in the past month. *From 2006 to 2018, there was a statistical increase in the overall percent of respondents who reported binge drinking in the past month while from 2015 to 2018, there was no statistical change. Please note: binge drinking definition was 5+ drinks in 2006 and 2009 while it was 4+ drinks for females and 5+ drinks for males since 2012.*

In 2018, 2% of respondents reported someone in their household experienced a problem, such as legal, social, personal or physical in connection with drinking alcohol in the past year. Two percent of respondents reported someone in their household experienced a problem in connection with cocaine/heroin/other street drugs. One percent of respondents each reported someone in their household experienced a problem in connection with marijuana or with the misuse of prescription drugs/over-the-counter drugs. Less than one percent of respondents reported someone in their household experienced a problem in connection with gambling. *From 2006 to 2018, there was no statistical change in the overall percent of respondents reporting a household problem in connection with drinking alcohol, as well as from 2015 to 2018. From 2012 to 2018, there was a statistical increase in the overall percent of respondents reporting a household problem with cocaine/heroin/other street drugs, as well as from 2015 to 2018. From 2012 to 2018, there was no statistical change in the overall percent of respondents reporting a household problem with marijuana, the misuse of prescription drugs/over-the-counter drugs or gambling, as well as from 2015 to 2018.*

In 2018, 9% of respondents reported someone made them afraid for their personal safety in the past year; respondents who were male, 18 to 24 years old, African American, Hispanic, with a high school education or less, in the bottom 40 percent household income bracket or unmarried respondents were more likely to report this. Nine percent of respondents reported they had been pushed, kicked, slapped or hit in the past year; respondents who were male, 18 to 24 years old, non-white and non-African American, Hispanic, with a high school education or less, in the bottom 40 percent household income bracket or unmarried respondents were more likely to report this. A total of 14% reported at least one of these two situations; respondents who were male, 18 to 24 years old, non-white and non-African American, Hispanic, with some post high school education or less, in the bottom 40 percent household income bracket or unmarried respondents were more likely to report this. *From 2006 to 2018, there was no statistical change in the overall percent of respondents reporting they were afraid for their personal safety while from 2015 to 2018, there was a statistical increase. From 2006 to 2018, there was a statistical increase in the overall percent of respondents reporting they were pushed, kicked, slapped or hit, as well as from 2015 to 2018. From 2006 to 2018, there was no statistical change in the overall percent of respondents reporting at least one of the two personal safety issues while from 2015 to 2018, there was a statistical increase.*

Children in Household Key Findings

In 2018, a random child was selected for the respondent to talk about the child's health and behavior. Ninety-five percent of respondents reported they have one or more persons they think of as their child's personal doctor or nurse, with 93% reporting their child visited their personal doctor or nurse for preventive care during the past year. Six percent reported there was a time in the past year their child did not receive the dental care needed while 5% percent reported their child was not able to visit a specialist they needed to see. Three percent reported their child did not receive the medical care needed. Seventeen percent of respondents reported their child currently had asthma. Nine percent of respondents reported their child was seldom or never safe in their community. Eleven percent of respondents with a child who was 2 years old or younger reported when their child was an infant, he/she slept in bed with them or another person. Thirty-eight percent of respondents reported their child has two or fewer hours of screen time on an average school/week day. Sixty-one percent of respondents reported their child did not drink soda or pop in the past week, excluding diet soda. Fifty-eight percent of respondents reported their 5 to 17 year old child was physically active five times a week for 60 minutes. Five percent of respondents reported their 5 to 17 year old child always or nearly always felt unhappy, sad or depressed in the past six months. Sixteen percent reported their 5 to 17 year old child experienced some form of bullying in the past year; 13% reported verbal bullying, 6% reported physical bullying and 3% reported cyber bullying. *From 2012 to 2018, there was a statistical increase in the overall percent of respondents reporting their child has a personal doctor or nurse, as well as from 2015 to 2018. From 2012 to 2018, there was no statistical change in the overall percent of*

respondents reporting their child visited their personal doctor/nurse for preventive care, as well as from 2015 to 2018. From 2012 to 2018, there was no statistical change in the overall percent of respondents reporting their child had an unmet medical need or unmet dental need, as well as from 2015 to 2018. From 2012 to 2018, there was a statistical increase in the overall percent of respondents reporting their child was unable to see a specialist when needed, as well as from 2015 to 2018. From 2012 to 2018, there was a statistical increase in the overall percent of respondents who reported their child had asthma or their child was seldom/never safe in their community, as well as from 2015 to 2018. From 2012 to 2018, there was no statistical change in the overall percent of respondents who reported when their child was an infant, he/she slept in bed with them or another person, as well as from 2015 to 2018. From 2012 to 2018, there was a statistical decrease in the overall percent of respondents who reported their 5 to 17 year old child was physically active five times a week for at least 60 minutes, as well as from 2015 to 2018. From 2012 to 2018, there was no statistical change in the overall percent of respondents who reported their 5 to 17 year old child always or nearly always felt unhappy/sad/depressed, as well as from 2015 to 2018. From 2012 to 2018, there was no statistical change in the overall percent of respondents who reported their child was bullied or in the type of bullying, as well as from 2015 to 2018.

Top Community Health Issues Key Findings

In 2018, respondents were asked to list the top three community health issues. The most often cited was chronic diseases or cancer (34%) followed by illegal drug use or prescription/over-the-counter drug abuse (27%). Respondents who were 18 to 24 years old, African American, Hispanic, with a high school education or less, in the bottom 40 percent household income bracket or unmarried respondents were more likely to report chronic diseases or cancer as a top community health issue. Respondents who were 55 to 64 years old, non-African American, non-Hispanic, with at least some post high school education or in the top 40 percent household income bracket were more likely to report illegal drug use or prescription/over-the-counter drug abuse. Twenty percent of respondents reported access to health care as a top community health issue; respondents who were female, non-African American, with at least some post high school education or in the top 40 percent household income bracket were more likely to report this. Seventeen percent of respondents reported infectious diseases. Respondents who were male, 18 to 24 years old, African American, Hispanic, with a high school education or less, in the bottom 40 percent household income bracket or unmarried respondents were more likely to report infectious diseases. Sixteen percent reported violence or crime as a top community health issue. Respondents who were 18 to 24 years old, African American, Hispanic or with a high school education or less were more likely to report violence or crime. Fifteen percent reported overweight or obesity as a top community health issue. Respondents who were female, 18 to 24 years old, non-Hispanic or with a college education were more likely to report overweight or obesity. Fifteen percent of respondents reported mental health or depression; respondents who were 25 to 34 years old, 45 to 64 years old, white, with a college education or in the middle 20 percent household income bracket were more likely to report this. Nine percent of respondents reported alcohol use or abuse as a top community health issue; respondents who were male, 25 to 34 years old, non-African American, non-Hispanic or with a college education were more likely to report this. Six percent of respondents reported access to affordable healthy food as a top community health issue. Respondents who were non-Hispanic, with a college education or married respondents were more likely to report access to affordable healthy food. Five percent of respondents reported tobacco use as a top community health issue. Respondents who were male, 25 to 34 years old, non-white and non-African American, Hispanic or in the top 40 percent household income bracket were more likely to report tobacco use. Five percent of respondents reported environmental issues; respondents 55 to 64 years old or in the middle 20 percent household income bracket were more likely to report this. Four percent of respondents reported affordable health care; respondents who were 35 to 44 years old, white, Hispanic, with a college education, in the top 40 percent household income bracket or married respondents were more likely to report this. Four percent of respondents reported lack of physical activity as a top community health issue. Respondents who were non-white and non-African American, non-Hispanic or with a college education were more likely to report lack of physical activity. Three percent of respondents reported lead poisoning; respondents who were 35 to 44 years old, white, Hispanic, with a college education or married were more likely to report this. Three percent of respondents reported driving problems/aggressive driving/drunk driving; respondents with a college education, in the middle 20 percent household income bracket or married respondents were more likely to report this.

Appendix E | Hanlon Method for Prioritizing Health Problems

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

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

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

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

Propriety – Is a program for the health problem suitable?

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

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

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

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

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

D = [A + (2 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.

Milwaukee Hanlon Rankings of Health Problems					
Ranking	**Health Issue Based on CHNA Data**	**A**	**B**	**C**	**D**
1	**Mental Health Condition**	**3**	**9**	**9**	**189**
2	**No flu vaccine in past year (18 and older)**	**9**	**5**	**10**	**190**
3	**Did not get recommended moderate/vigorous activity**	**9**	**5**	**4**	**176**
	Overweight	**9**	**8**	**4**	
4	**Did not eat at least 5 fruits/vegetables per day**	**9**	**5**	**9**	**171**
5	**Do not have a primary care physician**	**2**	**7**	**9**	**144**
6	Binge drinking	5	8	4	84
Ranking	**Older Adults Subset**	**A**	**B**	**C**	**D**
1	Did not get recommended cancer screening in time (50 and older)	4	7	9	162
2	No flu vaccine in past year (65 and older)	4	5	10	140
Ranking	**Women's Health Subset**	**A**	**B**	**C**	**D**
1	No mammogram (50+, within past 2 years	3	6	9	135
2	No bone density scan (65 and older)	2	6	9	126

Evaluation of Impact Reports

System-Wide Population Health Focus | Hepatitis C

Intended Impact

- Increased number of patients with hepatitis C are identified and referred for early intervention and treatment

Results

2017

- Green Bay, Manitowoc & Marinette data:
  - Total number of patients tested – 2,463
  - Number of patients who tested positive – 51
  - Number with positive confirmatory tests – 25
  - Number in treatment – 24
- Oshkosh & Fond du Lac data:
  - Total number of patients tested – 1,380
  - Number of patients who tested positive – 36
  - Number with positive confirmatory tests – 14
  - Number in treatment – 13
- Greater Milwaukee North & Sheboygan:
  - Total number of patients tested – 6,458
  - Number of patients who tested positive – 112
  - Number with positive confirmatory tests – 66
  - Number in treatment – 65
- Waukesha & Jefferson data:
  - Total number of patients tested – 1,067
  - Number of patients who tested positive – 22
  - Number with positive confirmatory tests – 10
  - Number in treatment – 9
- **Greater Milwaukee South data:**
  - **Total number of patients tested – 4,127**
  - **Number of patients who tested positive – 166**
  - **Number with positive confirmatory tests – 82**
  - **Number in treatment – 78**
- Burlington & Walworth data:
  - Total number of patients tested – 1,967
  - Number of patients who tested positive – 45
  - Number with positive confirmatory tests – 15
  - Number in treatment – 13
- Racine, Kenosha & Northern Illinois data:
  - Total number of patients tested – 2,366
  - Number of patients who tested positive – 49
  - Number with positive confirmatory tests – 26
  - Number in treatment – 23

2018

- Green Bay, Manitowoc & Marinette data:

    - Total number of patients tested – 2,707
        - 1,161 male, 1,546 female
        - 2,599 white, 30 black, 17 American Indian, 31 Asian, 1 other Pacific Islander
        - 2,667 spoke English, 22 Spanish, 13 Hmong, 4 Lao, 1 Norwegian
    - Number of patients who tested positive – 72
    - Number with positive confirmatory tests – 31
    - Number in treatment – 28
- Oshkosh & Fond du Lac data:
    - Total number of patients tested – 1,516
        - 751 male, 765 female
        - 1,474 white, 20 black, 3 American Indian/Alaskan Native, 8 Asian
        - 1,497 spoke English, 1 Spanish, 7 Hmong, 1 Mandarin, 1 Polish, 2 Russian, 3 American Sign Language, 1 Arabic
    - Number of patients who tested positive – 54
    - Number with positive confirmatory tests – 27
    - Number in treatment – 24
- Greater Milwaukee North & Sheboygan data:
    - Total number of patients tested – 5,739
        - 2,518 male, 3,221 female
        - 4,779 white, 765 black, 11 American Indian/Alaskan Native, 105 Asian, 1 Native Hawaiian, 4 other Pacific Islander
        - 5,658 spoke English, 15 Spanish, 19 Hmong, 1 German, 1 Hindi, 1 Italian, 2 Urdu, 8 Vietnamese, 1 Mandarin, 1 Indonesian, 3 Korean, 1 Nepali, 12 Russian, 3 Tagalog, 2 Gujarati, 2 Lao, 5 American Sign Language
    - Number of patients who tested positive – 127
    - Number with positive confirmatory tests – 60
    - Number in treatment – 58
- Waukesha & Jefferson data:
    - Total number of patients tested – 1,335
        - 758 male, 577 female
        - 1,302 white, 12 black, 1 American Indian/Alaskan Native, 8 Asian
        - 1,326 spoke English, 2 Spanish, 1 Albanian, 1 Flemish, 2 Norwegian, 1 French, 1 Russian
    - Number of patients who tested positive – 28
    - Number with positive confirmatory tests – 15
    - Number in treatment – 15
- **Greater Milwaukee South data:**
    - **Total number of patients tested – 3,660**
        - **1,556 male, 2,104 female**
        - **3,042 white, 468 black, 15 American Indian/Alaskan Native, 89 Asian, 2 other Pacific Islander**
        - **3,336 spoke English, 213 Spanish, 7 Serbian, 9 Arabic, 4 Korean, 7 Cantonese, 8 American Sign Language, 5 Albanian, 6 Lao, 4 Polish, 4 Rohingya, 9 Russian, 1 Bengali, 3 Burmese, 3 Mandarin, 3 Gujarati, 6 Hmong, 1 Italian, 3 Karen, 1 Norwegian, 3 Somali, 1 Uzbek, 11 Vietnamese, 2 Hindi, 3 French, 4 Tagalog, 1 Ukrainian, 1 Pashto**
    - **Number of patients who tested positive – 202**
    - **Number with positive confirmatory tests – 90**
    - **Number in treatment – 78**
- Burlington & Walworth data:
    - Total number of patients tested – 2,261
        - 1,086 male, 1,175 female
        - 2,216 white, 16 black, 3 American Indian/Alaskan Native, 9 Asian, 3 other Pacific Islander
        - 2,215 spoke English, 28 Spanish, 3 Cantonese, 2 Norwegian, 1 Hindi, 1 Polish, 1 Russian, 6 American Sign Language, 3 Lao, 1 Punjabi

- Number of patients who tested positive – 43
- Number with positive confirmatory tests – 22
- Number in treatment – 21

- Racine, Kenosha & Northern Illinois data:
  - Total number of patients tested – 3,294
    - 1,585 male, 1,709 female
    - 2,994 white, 231 black, 3 American Indian/Alaskan Native, 32 Asian, 7 other Pacific Islander
    - 3,220 spoke English, 53 Spanish, 1 Norwegian, 3 Polish, 2 Russian, 1 Thai, 5 American Sign Language, 2 Karen, 2 Tagalog, 1 Cambodian, 1 North Ndebele, 1 Mandarin, 1 Arabic
  - Number of patients who tested positive – 62
  - Number with positive confirmatory tests – 34

  Number in treatment – 30

Appendix F | Evaluation of Impact Aurora St. Luke's Medical Center (ASLMC)

Focus | Access

Intended Impact

- Increased number of Medicaid-eligible and uninsured patients establish a relationship with a primary care provider
- Reduction in number of ED high utilizers
- Decrease in number of patients being readmitted after discharge

Results

2017

- 5,988 non-emergent ED visits without a primary care physician; 551 of those saw an AHC primary care provider within 28 days
- Milwaukee Healthcare Partnership ED Care Coordination: 598 scheduled appointments, including 547 FQHC appointments with a 44% FQHC show rate, 21 dental appointments scheduled
- 15 individuals received tele-intake services in the ED for behavioral health issues
- 324 individuals received case-management through the Coverage to Care program
- 2,173 discharged patients had a follow-up appointment scheduled within 7 days
- 6,083 discharged patients were contacted in their preferred spoken language through the Discharge Phone Calls initiative

2018

- 6,281 non-emergent ED visits without a primary care physician; 558 of those saw an AHC primary care provider within 28 days
- Milwaukee Healthcare Partnership ED Care Coordination: 506 scheduled appointments, including 501 FQHC or community clinic appointments
- 148 individuals received case-management through the Coverage to Care program
- 74% of patients being discharged received follow-up appointments; 17% were readmitted
- 47,387 patients being discharged from ASLMC received a follow-up phone call in their preferred spoken language through the Discharge Phone Calls initiative; 30+ different languages were utilized
    - 8 discharge phone call staff were trained in suicide response and the suicide protocol was implemented 2 times; 8 discharge phone call staff were trained in opioid/drug response through

Focus | Chronic disease prevention and management for persons with disproportionate unmet health needs

Intended Impact

- Increased access to high-quality and specialty care for uninsured and underinsured patients

Results

2017

- 6,621 patients were served; 3,269 were male, 3,347 female, 8 transgender, 5,489 white, 483 black, 26 American Indian/Alaskan Native, 623 Asian, 5,092 Hispanic, 1,527 non-Hispanic, 720 were 0-17 years old, 1,827 were 18-34, 2,897 were 35-49, 878 were 50-64, 299 were 65+
- Data was contributed and WCHQ scores were available for 19 measures
- 709 individuals were referred to Aurora's Specialty Access for Uninsured Program (SAUP)
- 415 individuals participated in WISE Woman program for cardiovascular careening and treatment including blood pressure, blood sugar, weight and blood cholesterol
- 73 individuals participating in Wise Man for cardiovascular, cancer and mental health screening and treatment
- 357 mammograms and 102 pap tests were provided through the Wisconsin Well Woman Program
- 972 women received breast cancer education with 583 receiving a breast cancer screening reminder and 433 provided with low or no-cost breast cancer screening resources
- 281 patients attended at least one visit at CORE/El Centro for fitness and nutritional programming
- 1,547 patients were provided with social services to navigate the healthcare system and access safety-net resources, obtain legal documents, address domestic violence issues and receive family counseling/family planning information
- 400 patients were served through 1,403 counseling appointments with a team led by a bilingual PhD psychologist
- 52 patients received optometry care in collaboration with the Wisconsin Optometric Association
- 429 patients received onsite diabetes retinal screenings
- Community Health Workers provided 1,500 cancer screening reminder calls or conversations and 589 health coaching sessions

2018

- 7,198 patients were served; 3,561 were male, 3,627 female, 10 transgender, 6,369 white, 415 black, 14 American Indian/Alaskan Native, 366 Asian, 6 other Pacific Islander, 5,854 Hispanic, 1,161 non-Hispanic, 378 were 0-17 years old, 2,018 were 18-34, 2,678 were 35-49, 1,808 were 50-64, 316 were 65+
- Data was contributed and WCHQ scores were available for 19 measures annually
- 314 individuals referred to Aurora's Specialty Access for Uninsured Program (SAUP)
- 197 individuals participating in WISE Woman program for cardiovascular careening and treatment including blood pressure, blood sugar, weight and blood cholesterol
- 200 mammograms and 83 pap tests were provided through the Wisconsin Well Woman Program
- 492 women received breast cancer education with 326 receiving a breast cancer screening reminder and 233 provided with low or no-cost breast cancer screening resources
- 405 patients attended at least one visit at CORE/El Centro for fitness and nutritional programming
- 1,511 patients were provided with social services to navigate the healthcare system and access safety-net resources, obtain legal documents, address domestic violence issues and receive family counseling/family planning information
- 380 patients were served through 1,602 counseling appointment with a team led by a bilingual PhD psychologist
- Community Health Workers provided 751 cancer screening reminder calls or conversations and 721 health coaching sessions
- 92 refugee health screenings were provided
- 27 individuals were provided with care through the Transitional Clinic program

Focus | Chronic-disease management: Heart health with a special focus on women

Intended Impact

- Women who interface with the Karen Yontz Center will better understand their personal risk factors and adopt healthier lifestyle practices

Results

2017

- 197 women received heart risk appraisals at the Karen Yontz Women's Cardiac Awareness Center
- 58 educational events were held with 2,638 individuals attending; 138 individuals reported improvement in lifestyle practices and 33 adopted a stress-management practice
- 204 individuals received health risk assessments and educational reinforcement; 211 identified a personal risk factor and behavioral change they were willing to make and 153 completed a 30-day check-in
- 66 individuals educated on heart-health implications of cancer treatment

2018

- 171 women received heart risk appraisals
- 69 educational events were held with 2,675 individuals attending; 189 individuals reported improvement in lifestyle practices and 136 adopting a stress-management practice
- 236 individuals received health risk assessments and educational reinforcement; 287 identified a personal risk factor and behavioral change they were willing to make and 95 completed the 30-day check-in
- 2 women were referred to cardio-oncology

Focus | Chronic-disease management: Diabetes (2017 only)

Intended Impact

- Improved health status and positive self-care behaviors as reported by participants

Results

2017

- 1 Living Well with Chronic Disease session was provided to 10 attendees
- 2 Living Well with Diabetes sessions were provided to 20 attendees

Focus | Chronic-disease management: Cancer

Intended Impact

- Reduction in the number of preventable readmissions for patients in the Transitions of Care Program

Results

2017

- 75 ACC system activities were offered at ASLMC
- 44 patients were treated through 207 visits at the Spanish Cancer Clinic
- 4,369 patients were served through the Cancer Nurse Navigator program with 619 referred to Aurora providers and 98 referred to community partners
- 1 Living Well Beyond Cancer program was offered with 14 participants
- 1,260 patients and 498 family members received cancer counseling services through Aurora Family Service

2018

- 37 ACC system activities were offered at ASLMC with 6,500 individuals attending; 3,200 individuals reported knowledge gain
- 24 Spanish-speaking individuals were treated through 69 visits at our Spanish Cancer Clinic
- 2,418 cancer patients were served through the Cancer Nurse Navigator program through Q3; 583 were referred to Aurora service providers and 193 were referred to community resources
- 2 Living Well Beyond Cancer programs were provided to 36 participants
- 1,689 individuals were provided with cancer counseling services in partnership with Aurora Family Service
- 104 ACS referrals were made

Focus | Health professions education and workforce development

Intended Impact

- Transport protocols for stroke and chest pain result in timely response, improving patient outcomes
- Increased public knowledge about the warning signs of stroke, heart attack and how to respond
- Increased knowledge of disaster planning among local fire fighters
- Increased awareness of the availability of hyperbaric chamber care for persons in need of specialized wound care

Results

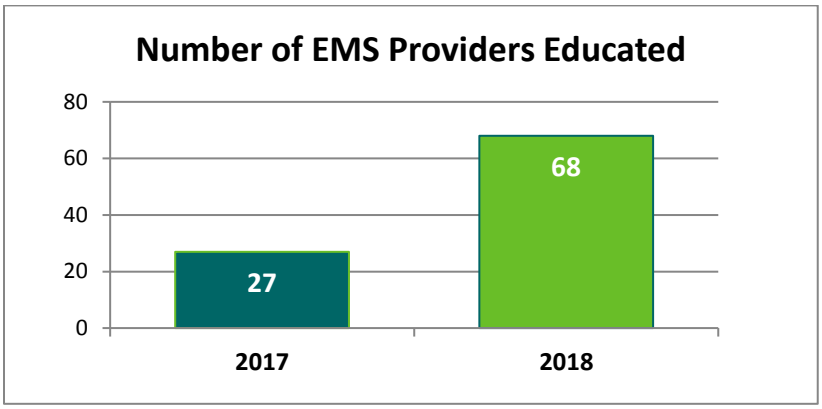
2017

- 4 specialized advanced health professional educational sessions were provided for EMS providers with 27 attendees
- 21 Comprehensive Stroke Care educational sessions and contacts were provided with 1,963 attendees; 1,044 reported knowledge gain and 1,260 completed risk assessments
- 3 specialized disaster-planning education sessions were provided with 37 fire fighters trained

- 7 specialized advanced health professional education sessions on our hyperbaric chamber were provided to 25 attendees
- 400 medical and nursing students were provided with hyperbaric chamber shadowing experiences

2018

- 6 specialized advanced health professional educational sessions were provided for EMS providers with 68 attendees
- 15 Comprehensive Stroke Care educational sessions were provided to 940 attendees; 685 reported knowledge gain and 505 risk assessments were completed
- 32 specialized advanced health professional education sessions on our hyperbaric chamber were provided to 350 attendees
- 440 medical and nursing students were provided with hyperbaric chamber shadowing experiences



Focus | Abdominal aortic aneurysm

Intended Impact

- Increased number of patients with AAA are identified and referred for follow-up care and treatment

Results

2017

- 2,319 patients were tested system-wide
- Total number of patients who tested positive by service area:
  - Green Bay, Manitowoc & Marinette – 11
  - Oshkosh & Fond du Lac – 1
  - Greater Milwaukee North & Sheboygan – 13
  - Waukesha & Jefferson – 3
  - Greater Milwaukee South – 14
  - Burlington & Walworth – 6
  - Racine, Kenosha & Northern Illinois – 7

2018

- Green Bay, Manitowoc & Marinette data through Q1:
  - Total number of patients tested – 55
    - 53 Other Pacific Islander
    - 55 spoke English
- Oshkosh & Fond du Lac data through Q1:
  - Total number of patients tested – 26
    - 24 white, 1 Native Hawaiian
    - 26 spoke English
- Greater Milwaukee North & Sheboygan data through Q1:
  - Total number of patients tested – 132
    - 118 white, 12 black, 1 Asian
    - 130 spoke English, 1 Mandarin
- Waukesha & Jefferson data through Q1:
  - Total number of patients tested – 29
    - 29 white
    - 29 spoke English
- Greater Milwaukee South data through Q1:
  - Total number of patients tested – 86
    - 74 white, 8 black, 1 American Indian/Alaskan Native, 2 Asian
    - 84 spoke English, 1 Spanish, 1 Cantonese
- Burlington & Walworth data through Q1:
  - Total number of patients tested – 34
    - 34 white
    - 34 spoke English
- Racine, Kenosha & Northern Illinois data through Q1:
  - Total number of patients tested – 62
    - 55 white, 4 black, 1 Asian
    - 62 spoke English

Appendix G | Evaluation of Impact Aurora St. Luke's South Shore (ASLSS)

Focus | Access

Intended Impact

- Increased number of Medicaid-eligible and uninsured patients establish a relationship with a primary care provider
- Decreased ED admissions for primary care
- Improved outcomes for uninsured patients discharged from our care

Results

2017

- 1,539 non-emergent ED visits without a primary care physician; 142 of those saw an AHC primary care provider within 28 days
- Milwaukee Healthcare Partnership ED Care Coordination YTD: 60 scheduled appointments, including 59 FQHC appointments with a 28% FQHC show rate
- Prescriptions worth $3,546.80 were provided through the Aurora Essential Medication Fund
- 17 individual received tele-intake services in the ED for behavioral health issues*

2018

- 1,657 non-emergent ED visits without a primary care physician; 140 of those saw an AHC primary care provider within 28 days
- Milwaukee Healthcare Partnership ED Care Coordination YTD: 69 appointments were made, including 11 FQHC appointments
- Prescriptions worth $1,999 were provided through the Aurora Essential Medication Fund

**Reporting became system-wide in 2018*

Focus | Healthy blood pressure and healthy weight

Intended Impact

- All individuals with an identified health condition will report an activity/action to modify behavior(s)

Results

2017

- 20 free drop-in blood pressure checks served 81 people, 7 of whom were unduplicated
    - 1 was age 35-49, 6 were ages 50-64, 20 were 65+, 16 were male, 12 were female, 26 were white, 1 was black
    - 28 had a primary care provider, 20 are currently being treated for high BP, 8 had high BP at the time of the screening, 2 had a first-time high BP, 8 were overweight/obese
    - 6 reported that they would call a provider, 12 would retake BP in weeks, 2 exercise more, 2 lose weight, 1 would consume less salt, 1 would quit smoking
    - 12 individuals were referred for follow-up care and management

- 1 outreach blood pressure screening was provided with 14 individuals screened

- 12 were age 18-34, 1 was 35-49, 1 was 65+, 2 were male, 12 female, 9 white, 2 Asian, 1 Pacific Islander, 2 Hispanic
- 11 had a primary care provider, 1 was currently being treated for high BP, 1 was currently prescribed BP medication and took the medication that day, 2 had a high BP
- 2 individuals were referred to a provider
- 3 reported that they would consume less salt

2018

- 11 drop-in blood pressure screening clinics were held with 57 individuals screened, 6 of which were new
  - 1 individual was 35-49, 1 was 50-64, 11 were 65+, 9 male, 6 female, 13 white, 1 other
  - 16 reported having a primary care provider, 21 are currently being treated for high BP, 12 were classified as high BP, 1 had high BP for the first time, 6 were overweight/obese
  - 5 said they would call their provider, 12 said they would retake in a week, 1 exercise more, 1 lose weight, 39 take no action
  - 3 individuals were referred for follow-up care and management

Focus | Cancer education and support

Intended Impact

- Increased overall knowledge of cancer screening benefits and cancer risks within the diverse populations of our South Shore communities
- Increased survival rates with patients proactive in their own health care and survivorship, reducing their risk of recurrence, as tracked by Aurora Cancer Care

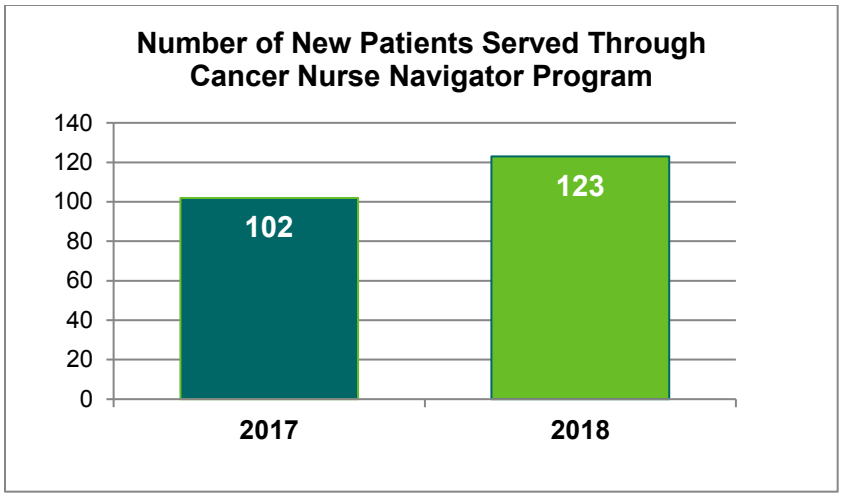
Results

2017

- 102 new patients were served through our Cancer Nurse Navigator program
  - 27 were referred for nutrition, 9 for therapy, 42 to AFS counseling, 26 to a social worker, 10 to a financial counselor, 2 to integrative medicine, 35 to ACS, 7 to InterFaith, 1 to Aging resource
- 4 Look Good Feel Better programs were offered with 3 participants

2018

- 123 new patients were served through our Cancer Nurse Navigator program; 45 were referred for nutrition, 3 for therapy, 30 to AFS counseling, 26 to a social worker, 15 to a financial counselor, 10 to ACS, 1 to InterFaith and 9 to ADRC
- 3 Look Good Feel Better program were offered with 8 participants
  - Look Good Feel Better has been promoted through Community Calendars, with 300+ mailed each quarter



Focus | Behavioral and mental health and alcohol/drug dependence

Intended Impact

- Reduced wait times for patients with identified behavioral health/AODA needs
- Increased behavioral health group meeting space closer to home for our communities

Results

2017

- 2,530 behavioral health intake assessments were completed
- 16.5 average inpatient behavioral health services daily census, 5.2 was the average partial hospitalization average daily census for mental health, 4.8 was the intensive outpatient average daily census
- 7 community groups utilized the Behavioral Health Community Resource Room

2018

- 2,183 behavioral health intake assessments were completed
- 14.6 average inpatient behavioral health services daily census, 5.1 average partial hospitalization daily census for mental health, 4.2 average intensive outpatient daily census
- 7 community groups utilized the Behavioral Health Community Resource Room

Focus | Injury Prevention

Intended Impact

- Early identification of at-risk individuals for follow-up interventions
- *Stepping On* programs provided regularly

Results

2017

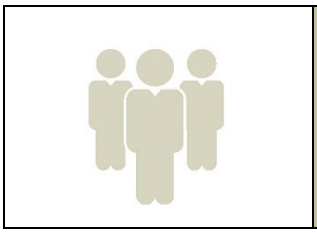
- 100% of ED patients aged 65 years and older were identified for screening with the Identification of Seniors at Risk (ISAR) tool, 68% of patients identified were screened and 100% of those who scored a 4 were referred to social services
- 1 *Stepping On* program was offered with 21 participants
    - 7 were male, 14 female, all were white and all were 65+ years of age

2018

- 66% of ED patients aged 65 years and older were identified for screening with the Identification of Seniors at Risk (ISAR) tool, 100% patients identified were screened and 100% of those who scored a 4 were referred to social services
- 2 Stepping On sessions were provided to 16 participants
    - 3 individuals were male, 13 female, 14 white, 1 black, 1 Asian, 1 age 50-64 and 15 ages 65+

Appendix H | Evaluation of Impact Aurora Sinai Medical Center (ASMC)

Focus | Access



Intended Impact

- Increased number of Medicaid-eligible and uninsured patients establish a relationship with a primary care provider
- Decreased utilization of hospital ED for primary care
- Improved outcomes for uninsured patients discharged from our care

Results

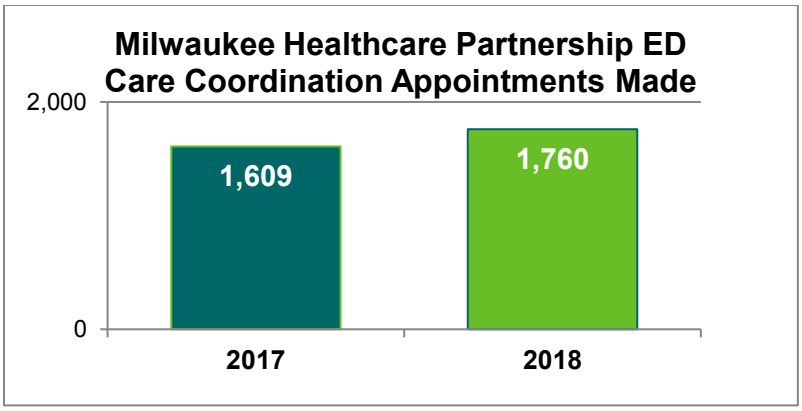
2017

- 8,311 non-emergent ED visits without a primary care physician; 513 of those saw an AHC primary care provider within 28 days
- Milwaukee Healthcare Partnership ED Care Coordination YTD: 1,609 appointments were made, including 1,515 FQHC appointments with a 38% FQHC show rate
- 8 individuals received tele-intake services in the ED for behavioral health issues*
- 7,028 individuals were served by the Progressive 12th Street Urgent Care Clinic
- 308 individuals were served through the Coverage to Care program
- 260 prescriptions provided through the Essential Medication Fund
- 438 Milwaukee County refugees were served through the Refugee Health Coordination Program; 219 received health screenings by an AHCMG clinic, 183 received health screenings by AWPCC, 100% established care with Aurora

2018

- 9,176 non-emergent ED visits without a primary care physician; 575 of those saw an AHC primary care provider within 28 days
- Milwaukee Healthcare Partnership ED Care Coordination YTD: 1,760 appointments were made, including 163 FQHC appointments
- 8,135 individuals were served by the Progressive 12th Street Urgent Care Clinic through 9,004 visits
- 289 individuals were served through the Coverage to Care program
- 384 prescriptions provided through the Essential Medication Fund
- 290 Milwaukee County refugees were served through the Refugee Health Coordination Program; 100 were referred to AFS, 7 received health screenings by AHCMG and 93 by AWPCC, 75% established care with an Aurora provider

**Reporting became system-wide in 2018*



Focus | Infant mortality

Intended Impact

- All parents/caregivers report improvement in parenting/caregiving skills and improvement in coping with and reducing stress
- Reduction in infant mortality among participants
- Reduced number of premature and low birth weight babies

Results

2017

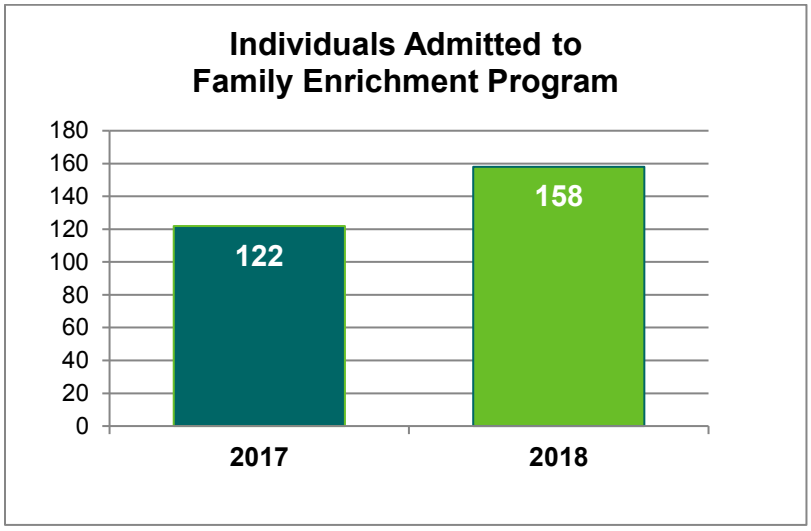
- Family Enrichment Program
  - 122 individuals were admitted into the program
  - 77% of parents/caregivers reported improvement in parenting/caregiving skills
  - 68% of parents/caregivers reported improvement in coping with a reduction in stress
- CenteringPregnancy prenatal program
  - 90 staff are currently trained
  - Of the 10 babies born to program participants, none were premature and 2 (20%) were low birth weight
- Maternal Addiction Recovery Center
  - 37 women are enrolled with a 93% show rate for BH nurse appointments, 90% antepartum medication compliance rate, 97% postpartum medication compliance rate, 91% therapy show rate, 90% antepartum abstinence rate and 95% postpartum abstinence rate
  - Average APGAR at 1 minute: 8.7, average APGAR at 5 minutes: 8.7, average length of stay of babies born with NAS whose mothers were enrolled: 13.7 days

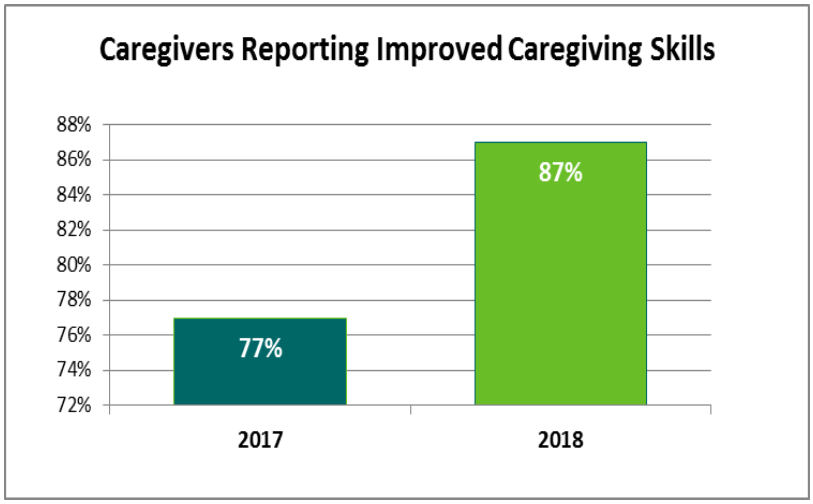
2018

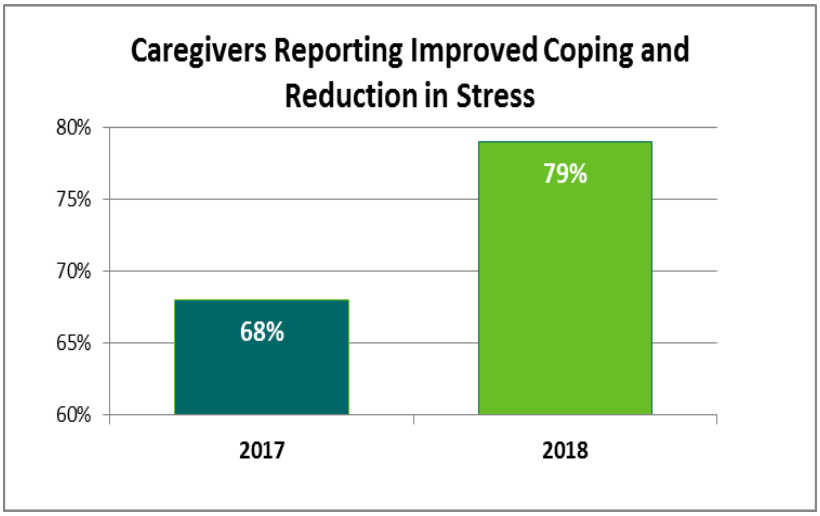
- Family Enrichment Program
  - 158 individuals were admitted into the program
  - 87% of parents/caregivers reported improvement in parenting/caregiving skills
  - 79% of parents/caregivers reported improvement in coping with a reduction in stress
- Maternal Addiction Recovery Center
  - 49 women are enrolled with an 93% medication compliance and 59% abstinence rate based on urine drug screenings; 3 mothers who remained active in the program were scheduled for follow-up appointments

- 13 babies were born to mothers enrolled in the program. Average length of stay in NICU was 5.8 days, average length of stay in hospital was 2.3 days and average APGAR score was 8.8

- Baby Boxes
  - 2,266 baby boxes were distributed







Focus | Aurora Healing and Advocacy Services

Intended Impact

- Increased number of survivors accessed appropriate care
- Improved mental health and use of healthy coping techniques
- Increased number of women who are safe and deliver healthy babies

Results

2017

- Sexual Assault Treatment Center
  - 683 people received services and medical care; 74 for adult physical assault, 437 adult sexual assault, 2 adults sexually assaulted as child, 9 child abuse/neglect, 131 child sexual abuse/assault, 22 domestic/family violence, 24 drug-facilitated sexual assault, 2 elder abuse/neglect, 7 human sex trafficking, 7 stalking/harassment, 21 strangulation, 3 teen dating victimization
  - 47 individuals receiving services were male, 630 female, 5 transgender, 233 white, 346 black, 7 American Indian/Alaskan Native, 5 Asian, 59 Hispanic, 16 multi-racial, 146 were 0-17 years, 360 were 18-34 years, 122 were 35-49 years, 50 were 50-64 years, 5 were 65+ years
  - 95 calls were taken from victims and the public on the 24-hour crisis phone line
  - Personal advocacy and liaison services were provided: 110 accompaniments to emergency medical care, 294 accompaniments to forensic exams, 156 accompaniments to law enforcement interviews, 1,634 individual advocacy, 419 forensic exams or interviews/medical evidence collection, 18 interventions with employer, creditor, landlord or academic institution, 75 transportation assistances, 16 interpreter services, 1,827 crisis interventions, 4 on-scene crisis responses, 458 individual counseling, 3 support groups
  - 35 community education/prevention/outreach presentations were provided to 1,394 attendees
- Milwaukee Sexual Assault Review
  - 12 meetings were held, with 24 cases reviewed and 43 recommendations made (10 policy recommendations, 29 agency recommendations, 4 case recommendations)
- Sojourner Family Peace Center
  - 175 individuals provided with services and medical care related to sexual assault

- The Healing Center
    - 4,634 individual and group counseling sessions were provided, serving 300 individuals
    - Of those served, 39 were male, 259 female, 1 transgender, 136 white, 77 black, 1 American Indian/Alaskan Native, 2 Asian, 2 Middle Eastern, 16 multi-racial, 51 Hispanic, 1 was 0-17 years old, 142 were 18-34 years old, 94 were 35-49, 58 were 50-64, 4 were 65+
    - 97 individuals were served through advocacy
    - Of the 115 people surveyed, 111 (97%) reported improved mental health and 108 (94%) reported the ability to use healthy coping techniques
    - 24 trainings were held for 557 professionals, mental health providers and community members
- Domestic Violence Service
    - 884 physicians, nurses, social workers, residents and other health care providers were trained
    - 1 ASMC SATC referral, 5 ASLMC referrals, 1 ASLSS referral, 44 walk-in ASMC referrals, 1 walk-in AWAMC referrals, 2 inpatient, 2 medical provider, 1 crisis line, 2 Sojourner Family Peace Center, 1 police, 2 primary care doc/clinic, 7 other/unknown
    - 85 individuals received services; 1 male, 83 female, 1 transgender, 64 black, 14 white, 1 American Indian/Alaskan Native, 2 Asian, 1 Hispanic, 2 were 0-17 years old, 40 were 18-34 years old, 23 were 35-49, 19 were 50-64, 1 was 65+
    - 39 one-on-one contacts were provided, 12 telephone one-on-one, 14 telephone without one-on-one, 10 advocacy without direct client contact
- Safe Mom Safe Baby
    - 97 women served with 19 receiving intensive support; 8 women served were white, 74 were black, 1 was Asian, 1 Middle Eastern, 1 mixed/multi-racial, 11 were Hispanic, 5 were 0-17 years old, 84 were 18-34 years old, 7 were 35-49 years old, 1 was 50-64 years old
    - 73 (75%) women had improved safety behaviors; 6 women gave birth with 100% reaching full term and none having low birth weight babies

2018

- Sexual Assault Treatment Center
    - 682 people received services and medical care; 50 for adult physical assault, 468 adult sexual, 5 adult sexually assaulted as a child, 1 child pornography, 142 child sexual abuse/assault, 15 domestic/family violence, 29 drug-facilitated sexual assault, 1 elder abuse, 8 human sex trafficking, 16 strangulation, 1 teen dating victimization
    - 74 individuals receiving services were male, 606 female, 1 transgender, 234 white, 332 black, 5 Native American, 9 Asian, 3 Native Hawaiian/other Pacific Islander, 2 Middle Eastern, 21 mixed/multi-racial, 63 Hispanic, 5 other
    - 161 were 0-17 years old, 383 were 18-34, 125 were 35-49, 63 were 50-64, 7 were 65+
    - 3,216 calls from survivors and the public were received on the 24-hour crisis phone line
    - Personal advocacy and liaison services were provided: 306 accompaniments to emergency medical care, 257 accompaniments to forensic exams, 146 accompaniments to law enforcement interviews, 292 individual advocacy,350 forensic exams or interviews/medical evidence collection, 22 intervention with employer, creditor, landlord or academic institution, 54 transportation assistances, 50 interpreter assistance, 25 crisis interventions, 5 on-scene responses
- Milwaukee Sexual Assault Review
    - 10 meetings were held, with 9 cases reviewed and 29 recommendations made (6 policy recommendations, 17 agency recommendations and 5 case recommendations)
- Sojourner Family Peace Center
    - 234 individuals provided with services and medical care related to sexual assault through Q3

- The Healing Center
    - 4,300 individual and group counseling sessions were provided, serving 248 new individuals
    - Of those new individuals served, 26 were male, 219 female, 1 transgender, 188 white, 71 black, 2 Asian, 12 mixed/multi-racial, 36 Hispanic, 148 were 18-34 years old, 73 were 35-49, 41 were 50-64 and 2 were 65+
    - 206 individuals were served through advocacy
    - Of the 94 people surveyed, 93 reported improved mental health and 92 reported the ability to use healthy coping techniques
- Domestic Violence Service
    - 12 referrals came from SATC, 59 walk-in ASMC, 1 St. Joseph's, 1 ASLMC, 3 Safe Mom Safe Baby, 5 Sojourner Family Peace Center, 7 police, 4 EMS, 1 inpatient, 1 clinic, 1 social worker, 1 Healing Center
    - 105 individuals received services; 101 female, 4 male, 12 white, 78 black, 1 Asian, 6 Hispanic, 2 Native American, 2 were under 18, 63 were 18-34 years old, 24 were 35-49, 15 were 50-64, 1 was 65+
    - 86 one-on-one contacts were provided, 7 telephone one-on-one, 3 telephone without one-on-one, 9 advocacy without direct client contact
    - Personal advocacy and liaison services were provided: 46 accompaniments to emergency medical care, 6 accompaniments to forensic exams, 7 accompaniment to law enforcement interview, 59 individual advocacy,4 performances of forensic exams or interviews/medical evidence collection, 8 intervention with employer, creditor, landlord or academic institution, 13 transportation assistances, 2 interpreter assistance, 5 crisis interventions, 2 hotline/crisis counseling, 1 on-scene crisis responses, 6 individual counseling, 3 support groups
- Safe Mom Safe Baby
    - 121 women served with 33 receiving intensive support; 14 women served were white, 93 were black,3 were Asian, 11 were Hispanic, 4 were under 18 years old, 102 were 18-34 years old and 14 were 35-49
    - 135 women had improved safety behaviors
    - 28 women gave birth, with 28 babies reaching full term and 2 having low birth weight
    - 6 women were served through the SHE program

Focus | Nutrition (new in 2018)

Intended Impact

- Increased consumption of fruits and vegetables

Results

2018

- 162 patients and 382 family members were served through the fruit and vegetable prescription program

Appendix I | Evaluation of Impact Aurora West Allis Medical Center (AWAMC)

Focus | Access

Intended Impact

- Increased number of Medicaid-eligible and uninsured patients establish a relationship with a primary care provider
- Increased access to behavioral health services
- Improved diagnostics for Greater Milwaukee Free Clinic patients

Results

2017

- 2,924 non-emergent ED visits without a primary care physician; 305 of those saw an AHC primary care provider within 28 days
- Milwaukee Healthcare Partnership ED Care Coordination YTD: 127 scheduled appointments, including 126 FQHC appointments with a 41% FQHC show rate
- 6 radiological services worth $7,240 were provided to Greater Milwaukee Free Clinic patients

2018

- 3,226 non-emergent ED visits without a primary care physician; 363 of those saw an AHC primary care provider within 28 days
- Milwaukee Healthcare Partnership ED Care Coordination YTD: 101 scheduled appointments, including 6 FQHC appointments
- 5 radiological services worth $6,783 were provided to Greater Milwaukee Free Clinic patients

Focus | Behavioral health

Intended Impact

- Increased access to behavioral health services
- Reduced stigma related to mental health and substance abuse

Results

2017

- 1,522 ED patients referred to appropriate levels of behavioral health services; 731 were referred for inpatient services, 46 partial-hospital, 9 intensive out-patient, 118 other out-patient; 3,249 total hours were spent with patients with an average of 2.1 hours per patient
- 10 Mental Health and Substance Abuse Task Force meetings were held: An area resource list was added to the website and a Social Media Campaign was held in September for Suicide Prevention Month. Two community training sessions were conducted in November, 2017 for frontline workers within the community (Epikos Church, School District, and MATC). Additional community organizations were added to the Task Force, including representatives from Milwaukee County Behavioral Health Division, Mental Health America and Whole Health
    - 4 trainings were held with 52 individuals attending; 36 attendees reported knowledge gain and 36 reported a change in perception
- Clergy Mental Health Support Network: Training Date was set for October 16th and invitations mailed to 38 area clergy. Training was rescheduled for November 29th since October 16th was a

conflict with the WELS Conference and only 3 clergy could attend. In November, 8 people (4 of who were clergy with congregations in the West Allis West Milwaukee area) attended a 4-hour training with Pastor Walter Lanier and Brenda Wesley from NAMI. The participant comments were overwhelmingly positive, and they rated the information as highly applicable to their work; all indicated that they would attend future training sessions and encourage their colleagues to attend

- Better Together Fund Partnership: In December, 7 AWAMC caregivers spent 2 hours serving the holiday meal for Meta House's out-patient Christmas party. AWAMC donated $2,500 to cover the cost of the meal for this party

2018

- 1,379 ED patients were assessed with 743 referred to behavioral health services; 596 were referred for inpatient services, 54 partial-hospital, 17 intensive out-patient, 76 outpatient; 3,029 total hours were spent with patients with an average of 2.1 hours per patient
- 10 Mental Health and Substance Abuse Task Force meetings were held
    - 1 educational session was provided to 1 group with 5 attendees
    - Monthly Facebook posts via the City of West Allis page with links back to Stop the Stigma website

Focus | Teen pregnancy

Intended Impact

- Improved birth outcomes for babies born to pregnant teens enrolled in Shared Journeys
- Graduates are able to secure and maintain employment to support their infants
- Increased student knowledge about healthy relationships and avoiding risky lifestyles and a second pregnancy

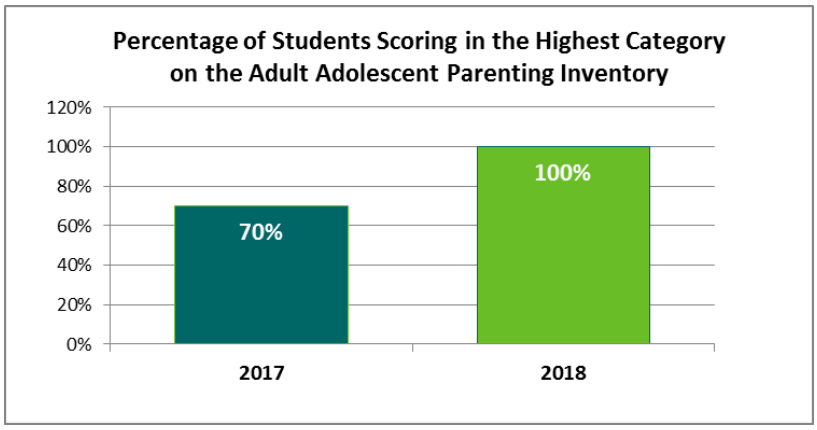
Results

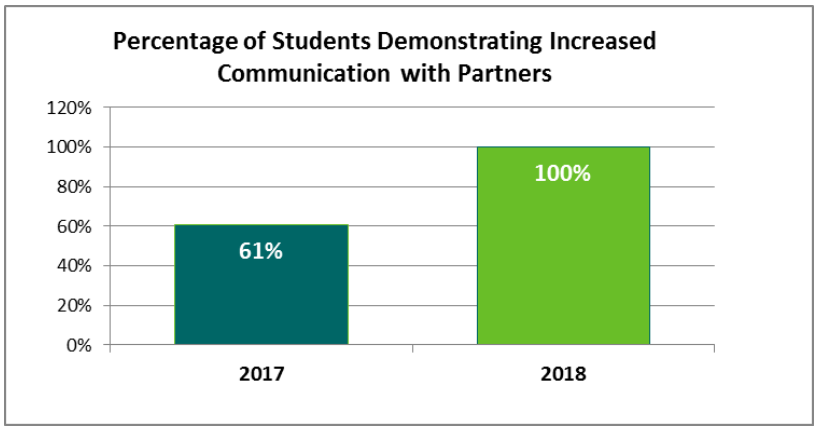
2017

- An average of 31 students were enrolled in *Shared Journeys* charter school per quarter; 13 babies were born to students enrolled, 6 (46%) were born full term and 100% initiated breast feeding
    - 11 students graduated with 90% enrolling in post-secondary education or job training
    - 70% of students were in the highest category on the Adult Adolescent Parenting Inventory
    - 61% of students demonstrated and increase in communication about sexual health with partners and a goal for their future

2018

- An average of 19 students were enrolled in *Shared Journeys* charter school per quarter; 12 babies were born to students enrolled, 100% were born full-term and 100% initiated breast feeding
    - 9 students graduated with 89% enrolling in post-secondary education or job training
    - 100% of students were in the highest category on the Adult Adolescent Parenting Inventory
    - 100% of students demonstrated and increase in communication about sexual health with partners and a goal for their future





Focus | Workplace wellness

Intended Impact

- Successful Well-City Designation for the communities of West Allis and West Milwaukee by 2020

Results

2017

- 19 local businesses have been recruited to join the Well-City Designation project

2018

- 17 local businesses have been recruited to join the Well-City Designation project
- The Wellness Council of Wisconsin lost their executive director in January and 2 of the other 3 staff members also left. WELCO is no longer offering the Well City Award and they are not accepting applications from new businesses. The Wellness Council of Wisconsin plans to continue to offer the Well City Award, but new businesses can not apply currently. The Committee working on this project is researching other programs similar to the Well City award and will meet with the Advisor Committee to determine how to proceed

Focus | Senior care

Intended Impact

- Reduction in the number of preventable readmissions for patients in the Transitions of Care Program

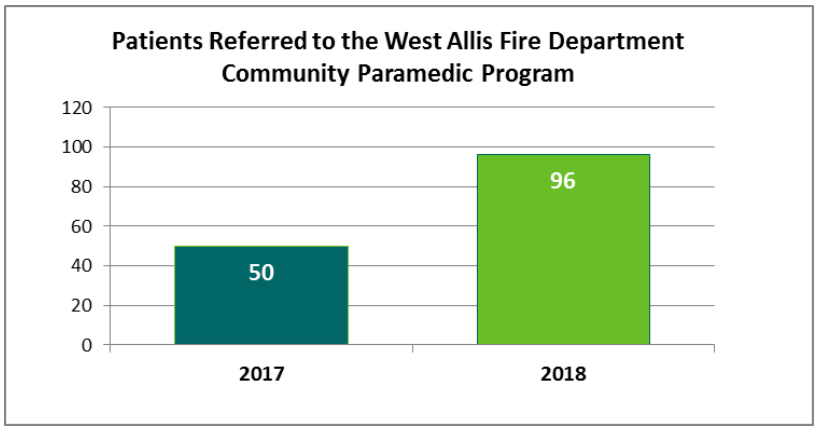
Results

2017

- 481 older adults received transition services
  - The transition care nurse had an average of 4.5 contacts with the patient within 30-days post-discharge
  - 90% had a primary care appointment scheduled at discharge, 76% of those were within 7 days of discharge
  - 64% had a POA for Health Care on chart
  - 79% received contact within two days of discharge
- 50 patients were referred to the West Allis Fire Department Community Paramedic Program

2018

- 2 Stepping On sessions were held with 25 individuals participating
- 423 older adults received transition services
  - The transition care nurse had an average of 4.8 contacts with the patient within 30 days post-discharge
  - 89% had a primary care appointment at discharge; 86% of those were within 7 days of discharge
  - 73% had a POA for health care on their chart
  - 85% were contacted within two days of discharge
- 96 patients were referred to the West Allis Fire Department Community Paramedic program



Focus | Health careers education

Intended Impact

- Area high school students are inspired to pursue health-related careers and pursue required training, schooling

Results

2017

- 76 students attended the half-day health professions event with 89% correctly identifying the level of academic preparation required to pursue various health-related careers
- 105 students job shadowed on our campus
- 12 students from Cristo Rey participated in work-study on our campus
- 33 teachers from New Berlin School District visited AWAMC and attended session provided by our caregivers to learn more about health-related careers and the academic preparation required to be successful so that the teachers could better prepare their students

2018

- 86 students attended the health professionals event with 100% correctly identifying the level of academic preparation required to pursue various health-related careers
- 20 students job shadowed on our campus
- 8 students from Cristo Rey participated in work-study on our campus

Focus | Cancer screening and care utilization among Spanish-speaking individuals

Intended Impact

- Increased awareness about and access to cancer services among the Spanish-speaking community

Results

2017

- Promotores meeting held with the West Allis Health Department, 16th Street Clinic, Core el-Centro and United Voices on September 14th and selected HVP vaccine to reduce the risk of cervical and oral cancers. Questions developed for focus group which was held in October. Feedback provided by focus group will be incorporated. An educator has been identified and a training will be held in Q1 of 2018

2018

- 2 male and 13 female bilingual lay people have been trained to serve as cancer Promotores

Focus | Cancer survivorship

Intended Impact

- Improvement in quality of life for cancer survivors

Results

2017

- 26 individuals attended cancer survivor education/discussion sessions
- 46 individuals participated in the lifestyle modification program
    - 21 participants showed improvement on the quality of life assessment
    - 43 engaged in 150 minutes of physical activity per week
- 63 individuals participated in Yoga for Cancer Survivors classes
- 7 patients were referred to additional system-wide Aurora-hosted offerings
- 48 patients and 16 caregivers attended the annual Survivorship celebration

2018

- 141 individuals attended our monthly education/discussion sessions for cancer survivors
- 35 individuals participated in the lifestyle modification program
    - 28 participants showed improvement on the quality of life assessment
    - 16 engaged in 150 minutes of physical activity per week
- 53 yoga classes were provided to 126 attendees
- 6 stress management classes were provided to 52 attendees
- 2 optimizing nutrition prior to treatment classes were offered
- 2 managing nutrition-related side effects during treatment classes were offered to 1 attendee
- 3 Look Good Feel Better classes were provided to 16 attendees
- 5 Advance Care Planning classes were provided to 29 attendees
- 4 nutrition and cancer classes were offered
- 1 aromatherapy classes were provided to 3 attendees
- 37 individuals were referred to additional system-wide Aurora-hosted offerings

Appendix J | Evaluation of Impact Aurora Psychiatric Hospital (APH)

Focus | Access

Intended Impact

- Expand behavioral health services within Milwaukee County
- Expand behavioral health services across 11 other Aurora Health Care hospital service areas

Results

2017

- 3,757 telephonic screenings and referrals to appropriate levels of care were provided
- 332 urgent care evaluations and referrals to appropriate levels of care were provided
- 898 inpatients were provided with telepsychiatry consultations at Aurora hospitals
- 353 patients were served in Glendale and 211 were served in Muskego through partial hospital intensive outpatient and clinic-based outpatient care at primary care locations
- 363 patients were served through the hospital-based behavioral health clinic in Menomonee Falls
- 121 patients were served through the behavioral health-primary care integration model

2018

- Construction of new Dewey Center and addition of 15 additional residential beds was complete on 7/21/2018
- 802 teleintake and 16,334 in-person assessments were provided by ABHS in Aurora hospital EDs either in person or via secure video link; 49 teleintake urgent care screenings provided
- 117,560 Call Center calls received through Q3; coverage was extended until 9pm and on the weekends
- 267 inpatients were provided with telepsychiatry consultations at Aurora hospitals; 12 were Medicaid patients
- 53 patients were served through telepsych medication management at ABHS-Marinette Clinic; there were 170 follow-up patients and 49 no shows
- 324 patients in Glendale and 326 patients in Muskego were served through partial hospital, intensive outpatient and clinic-based outpatient care at hospital-based clinic locations; 48 telepsych evaluations provided
- 3 patients at Good Hope and one at Layton were provided with tele-psychotherapy via secure connections at hospital-based clinic locations
- A space has been identified and work is being done with a builder on the hospital-based behavioral health clinic in Menomonee Falls
- 312 referrals were made through Clinically Integrated Network agreements through Q3
- Presentations were done to educate about the behavioral health-primary care integration model expansion

Focus | Alcohol, drug dependence and substance abuse

Intended Impact

- Increased number of support group accommodations for individuals in recovery and their families

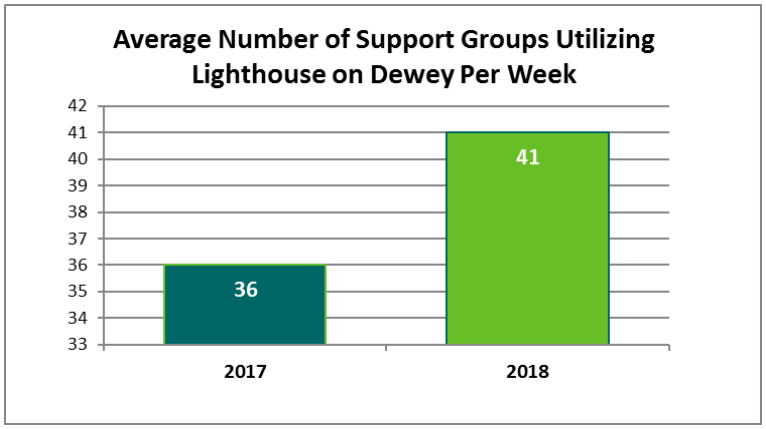
Results

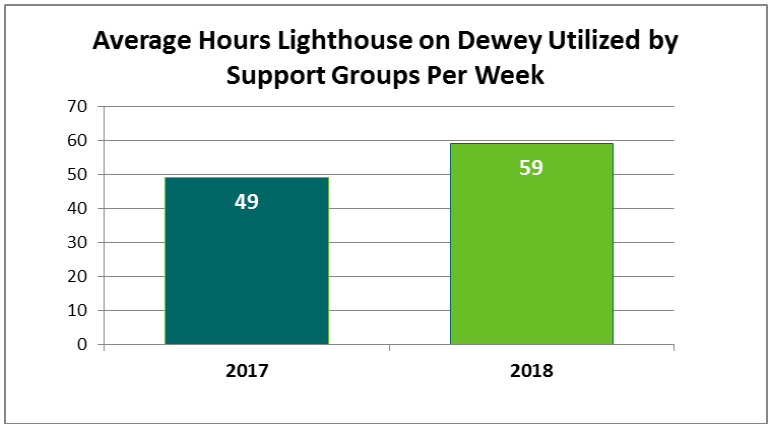
2017

- An average of 36 support and not-for-profit groups utilized Lighthouse on Dewey for an average of 49 hours per week with an average of 919 individuals attending per week

2018

- An average of 41 support and not-for-profit groups utilized Lighthouse on Dewey for an average of 59 hours per week with an average of 975 individuals attending per week





Focus | Health professions and community education, workforce development

Intended Impact

- Increased potential for early identification, referral and intervention for individuals in need of behavioral health care
- Increased number of non-psychiatry staff educated on skills to work with behavioral health patients
- Expanded educational opportunities for school professionals
- Greater number of providers available for increased access to behavioral health care and reduced wait times

Results

2017

- 10 continuing education programs and 3 intensive workshops were held with 542 individuals attending
    - 366 reported that they will change a specific aspect of their practice as a result of the program
- 3 Aurora RN unit leaders were trained through an immersion program on working with behavioral health patients
- 182 Aurora providers were trained in Verbal Defense and Influence on how to manage aggressive behavior
- 14 trainings were held for primary care providers and support staff on working with behavioral health patients, 233 individuals were trained
- 17 continuing education lectures were held for school professionals with 178 individuals attending
- 8 psych nurse practitioners were hired system-wide
- 8 clinical nurse specialists are employed within the Aurora system
- 12 geriatric psych providers were employed within the system
- 21 additional psychiatry residents/fellows were trained
- 1 consultation liaison psych fellow was trained
- 16 psychology residents were trained with 2 retained

2018

- 10 continuing education programs and 5 intensive workshops were held with 663 individuals attending; 1 was a psychiatrist, 124 psychologists, 20 nurses, 226 social workers, 218 other LPC
    - 336 reported that they will change a specific aspect of their practice as a result of the program
- 5 RNs were trained through the immersion program on working with behavioral health patients
- 179 Aurora providers were trained in Verbal Defense and Influence on how to manage aggressive behavior
- 14 training events/consultations were provided for primary care providers and support staff on working with behavioral health patients, 105 individuals were trained
- Average number of BH providers employed system-wide per quarter:
    - 46 psychiatrists
    - 36 psychologists
    - 152 psychotherapists
    - 12 psychiatric nurse practitioners
    - 2 psychiatric physician assistants
    - 24 dual-certified therapists
    - 17 buprenorphine-certified providers
- 40 new providers were hired
- 7 psychiatry residents were trained and 1 additional psychiatry fellow was trained