



Milwaukee County

Community Health Needs Assessment 2021

MILWAUKEE HEALTH CARE

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From the Sponsors

As health care providers, we know that health is more than what happens in the doctor's office or hospital. It is estimated that clinical care accounts for only about 20% of overall health. Where one lives, learns, and works has a much greater impact on length and quality of life, but not everyone lives in a place that affords them the opportunity to reach their full potential. Good health depends on access to things like affordable housing, quality schools, safe neighborhoods, and strong social and community connections. For groups that lack the opportunity for these essential supports, we see significant gaps in health outcomes.

This is also the case in Milwaukee County, where inequities today stem from a complex history of policies and practices that have resulted in hyper-segregation, prolonged poverty, and disinvestment in communities of color. Over time, racism and discrimination at multiple levels have driven deep-rooted barriers to health.

Despite historical and current challenges, communities in Milwaukee County are showing more resilience than ever before when it comes to improving health. Through the COVID-19 pandemic, we have seen increased collaboration and momentum to address health disparities in our community. Organizations and institutions of all sizes are working to address immediate needs as well as the root causes of racial and health inequity. Many have named racism as a public health crisis.

While we acknowledge there are limitations to the impact we can have on the community's health from within our hospital and clinic walls, we continue to work on expanding access to health care services, and remain committed to fostering improvement strategies that address the upstream causes of disease and health disparities. The findings from our shared Community Health Needs Assessment will help inform our health systems' specific and collective investments, programs, and partnerships. We hope it will also be used to guide efforts in the broader community to advance health and equity in Milwaukee County.

We all have a role to play in countering the systemic barriers to good health. Just as the causes of illness are many and inter-related, the same is true for the paths that lead to better health – for all us.



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APPENDIX

The following 2021 Community Health Needs
Assessment materials can be found in the Local
Reports section of HealthCompassMilwaukee.org

- A. [Milwaukee County Demographic Profile](#)
- B. [Community Health Survey Summary](#)
- C. [Community Health Survey Instrument](#)
- D. [Community Stakeholder Discussion Guide](#)

Introduction

Every three years, the health system members of the Milwaukee Health Care Partnership (*Advocate Aurora Health, Ascension Wisconsin, Children's Wisconsin, and Froedtert Health*) conduct a collaborative Community Health Need Assessment (CHNA) in Milwaukee County. The CHNA serves as the foundation from which hospitals and local health departments develop their respective community health improvement strategies.

These findings are also intended to inform a broader audience — community health centers, government health agencies, public health departments, philanthropy, community-based organizations, and civic leaders — about the top health issues facing our community.



The 2021 Milwaukee County CHNA relies on three sources of information:

- **Community Health Survey** (*primary data*): an on-line survey conducted August – October 2021, with more than 8,600 Milwaukee County residents completing 50 questions related to the top health needs in the community, individuals' perception of their overall health, access to health services, and social determinants of health, including racism and health equity.
- **Stakeholder Interviews and Focus Groups** (*primary data*): conducted by health system community benefit leaders with 103 individuals representing 93 organizations to identify the community's most pressing health issues and effective health improvement strategies. Forty-eight (48) key informants and 55 participants in four focus groups represented communities that include, but were not limited to: African American, Native American, Hispanic, Hmong, the elderly, youth, LGBTQ+, individuals with disabilities, and those living with mental illness and substance use disorders.
- **Health Compass Milwaukee** (*secondary data*): a dynamic website providing more than 300 of the most current health indicators for Milwaukee County at the county, municipal, zip code, and census tract levels (where available), as well as related demographic data such as race/ethnicity, education, income, and housing. healthcompassmilwaukee.org

This report along with additional 2021 Milwaukee County CHNA materials can be found on [Health Compass Milwaukee in the Local Reports section](#).

ACKNOWLEDGEMENTS

The 2021 Milwaukee County CHNA was overseen by a 14-member workgroup representing the community benefit teams of Advocate Aurora Health, Ascension Wisconsin, Children's Wisconsin, and Froedtert Health, with project management provided by the Milwaukee Health Care Partnership.



Conduent Healthy Communities Institute (HCI) provided primary data gathering, secondary data analysis, data synthesis, and report preparation for the 2021 CHNA. Conduent HCI works with clients across the nation to drive community health outcomes by assessing needs, developing focused strategies, identifying appropriate intervention programs, establishing monitoring systems, and implementing performance evaluation processes. To learn more about Conduent HCI, visit www.conduent.com/community-population-health.



The Center for Urban Population Health (CUPH) provided additional data analysis and participated as a member of the CHNA workgroup. CUPH seeks to advance population health research and education to improve the health of urban communities. Initiated in 2001, the Center is made up of faculty and staff from UW School of Medicine and Public Health, UW-Milwaukee, and Advocate Aurora Research Institute. Learn more about CUPH at www.cuph.org.

CONSIDERATIONS

The authors and sponsors of this report recognize that it relies on a limited number of key informants and available external data sources and focuses broadly on Milwaukee County. While every effort was made to conduct a comprehensive and current community health needs assessment, issues of high concern to specific individuals or communities within Milwaukee may not be fully represented.

ABOUT CHARTS AND TABLES IN THIS REPORT

The **bar charts** in this report are color-coded to show comparisons between overall values (in grey) and statistically significant differences for subgroups. A legend for colors is as follows:

- **green** indicates significantly **better** than overall value
- **red** indicates significantly **worse** than overall value
- **blue** indicates **no** statistically **significant difference** than overall value. Some charts have data that are less statistically stable and may have subgroup values marked in blue when large confidence intervals are present relative to the overall value.

In the **community health survey tables**, percentages in **red** indicate significant difference from overall responses.

Other than Homicides and Non-fatal shooting data (pg 14) and Household Net Worth data (pg 25), all **secondary data** in this report are available at healthcompassmilwaukee.org.

HCI Scores in the Top Five Health Issues in Detail:

Conduent HCI's Data Scoring Tool was used to identify and rank pertinent secondary data as part of the CHNA analysis. Each health issue detailed in this report contains a table of indicators where HCI Scores are assigned. For those indicators, the Milwaukee County value was compared to a Wisconsin and/or national indicator. Each indicator was then given a score based on available comparison. These scores range from 0 to 3, where 0 indicates the best health outcomes and 3, the worst. According to this scale, indicators with an HCI Score of 1.5 or greater reflect a significant need.

Data cited in this CHNA reflect data available at the time of analysis and may have been updated prior to publication.

Executive Summary

The 2021 Community Health Needs Assessment (CHNA) takes a comprehensive look at data collected in our community combined with numerous sources of individual and community health measures to paint a picture of the **key health issues** and **determinants of health** in Milwaukee County. The **top five health issues** identified in the CHNA are:

- **Mental Health**
- **Violence**
- **Drug Use and Overdose**
- **Alcohol Misuse and Abuse**
- **Access to Health Care Services**



The assessment also identified additional **health issues of concern**:

- **Maternal, fetal, and infant health**, particularly infant mortality
- **Infectious disease**, including COVID, HIV, and sexually transmitted infections
- **Chronic disease**, such as diabetes, heart disease, and asthma

The CHNA employed an **equity lens** to identify disparities in each of these issue areas which yielded a focus on **four priority populations** with unique health needs — prioritizing their health will be essential for improving the health of Milwaukee County as a whole. They are:

- **Black/African American**
- **Hispanic/Latino**
- **Children and Youth** (< 18 years old),
- **Older Adults/Elderly** (> 65 years old)

Further employing an equity lens, the assessment surfaced significant findings related to ‘upstream’ factors, also known as **determinants of health**, from both community input (primary data) and publicly reported health indicators (secondary data). Most profound, was the theme of **racism and discrimination**, which was elevated in the community health survey and community stakeholder discussions. Additionally, access to safe and affordable **housing** was identified by community stakeholders as the single most contributing factor – and strongest opportunity – for improving health for vulnerable populations.

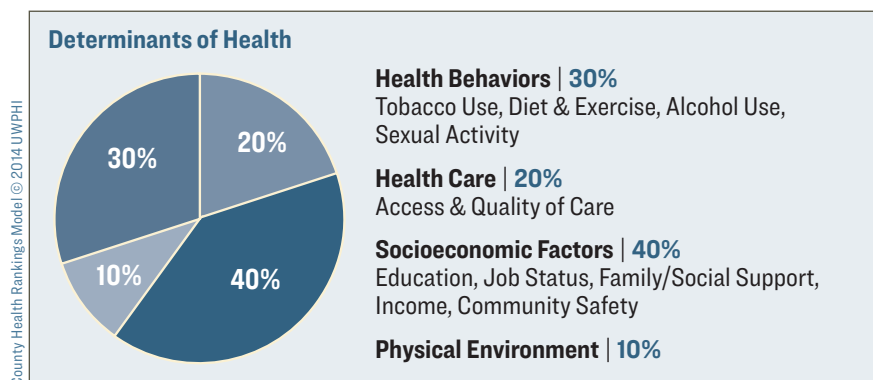
Disparities and Health Equity

Definitions Matter

Health equity and health disparities are complex and closely connected, as are their root causes. This assessment derived language and context for these definitions from the Robert Wood Johnson Foundation, University of Wisconsin Population Health Institute, and the American Public Health Association.

Racism affects opportunity and assigns value based on how a person looks. It unfairly advantages some individuals and communities and unfairly disadvantages others. Racism hurts the health of our nation by preventing some people from attaining their highest level of health. Racism can be intentional or not, and it impacts health in many ways; driving unfair treatment through policies, practices, and resource allocation. It is a fundamental cause of health disparities across numerous health issues.

Determinants of health reflect the many factors that contribute to an individual's overall health. In addition to health care and health behaviors, it is estimated that socioeconomic conditions and the physical environment represent 50% of an individual's opportunity for good health.



The determinants of health reflect a growing area of focus, research, and investment in areas like housing, education, community safety, and employment to help build healthier communities.

Health disparities are preventable differences in *health outcomes* (e.g. diabetes), as well as the *determinants of health* (e.g. access to affordable housing) across populations.

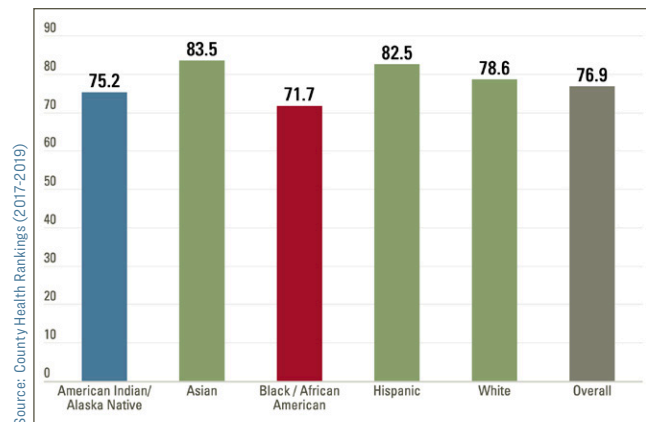
Health equity is the principle that opportunities for good health in vulnerable populations are achievable by eliminating systemic, avoidable, unfair, and unjust barriers. Progress towards achieving health equity can be measured by reducing gaps in health disparities.

Health Disparities

Identifying health disparities and barriers to good health are important components in assessing community health needs. Once identified, understanding upstream policies, systems, and social determinants that drive health disparities can help create practical, community-driven solutions that support individual and community health improvement. Analysis by race and place is utilized throughout this report.

National trends have shown that systemic racism, poverty, and gender discrimination have led to poorer health outcomes in communities of color, low-income populations, and for LGBTQ+ individuals. Health disparities in these and other vulnerable populations described in the CHNA are informed by both community input (primary data) and health indicators (secondary data).

Life Expectancy by Race/Ethnicity // Milwaukee County



Life expectancy and premature death are two examples of disparate health indicators in the secondary data. Life expectancy is a projection of expected years of life to be lived, and premature death, as measured by years of potential life lost (YPLL),

places attention on deaths earlier in life that could have been prevented.

Premature Death by Race/Ethnicity YEARS/ 100,000 POPULATION Milwaukee County

Source: County Health Rankings (2017-2019)

Race/Ethnicity	Years/ 100,000 Population
American Indian/Alaska Native	10,118.1
Asian	5,013.6
Black/African American	14,647.8
Hispanic/Latino	5,918.9
White	7,082.8
Overall	8,922.2

Overall life expectancy is 76.9 years for the general population, but when broken down by racial and ethnic groups, Blacks (71.7 years) and American Indian/Alaskan Native (75.2 years) live shorter lives than Whites (78.6 years). Premature death by YPLL shows a rate of life lost that is twice as severe for Blacks when compared to Whites.

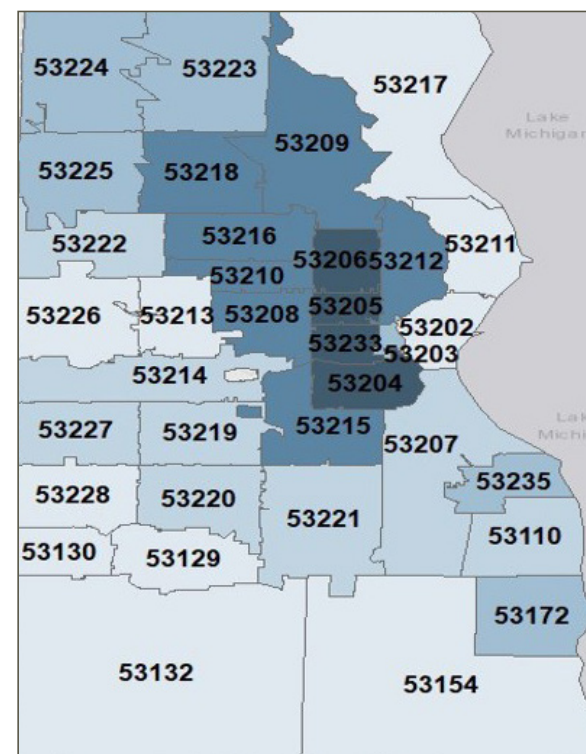
Community stakeholders (key informants and focus group participants) often noted that people of color (POC) are more negatively impacted by socioeconomic determinants that contribute to worse health outcomes. Additionally, older adults and children were the age groups that stakeholders identified as having more barriers to

accessing health care and services. This input helped frame the priority populations identified in the CHNA.

Disparities by Place

Zip code-level analysis in the assessment shows significant gaps in health outcomes by geography. This pattern is pronounced in the city of Milwaukee, where place overlaps with race because of residential hyper-segregation. With a history of policies and practices of discrimination and disinvestment, the data from these neighborhoods demonstrate the connection between decreased social and economic opportunities and poor health.

Health Equity Index Map by Zip Code



Developed by Conduent HCI, the Health Equity Index® (HEI), found on Health Compass Milwaukee, groups together indicators related to income, poverty, unemployment, occupation, education, and language. The HEI helps identify areas of high socioeconomic need that are correlated with poor health outcomes. In this map, zip codes are ranked based on their HEI value, resulting in eleven zip codes identified in the CHNA as having the highest health needs.

Key Findings Summary

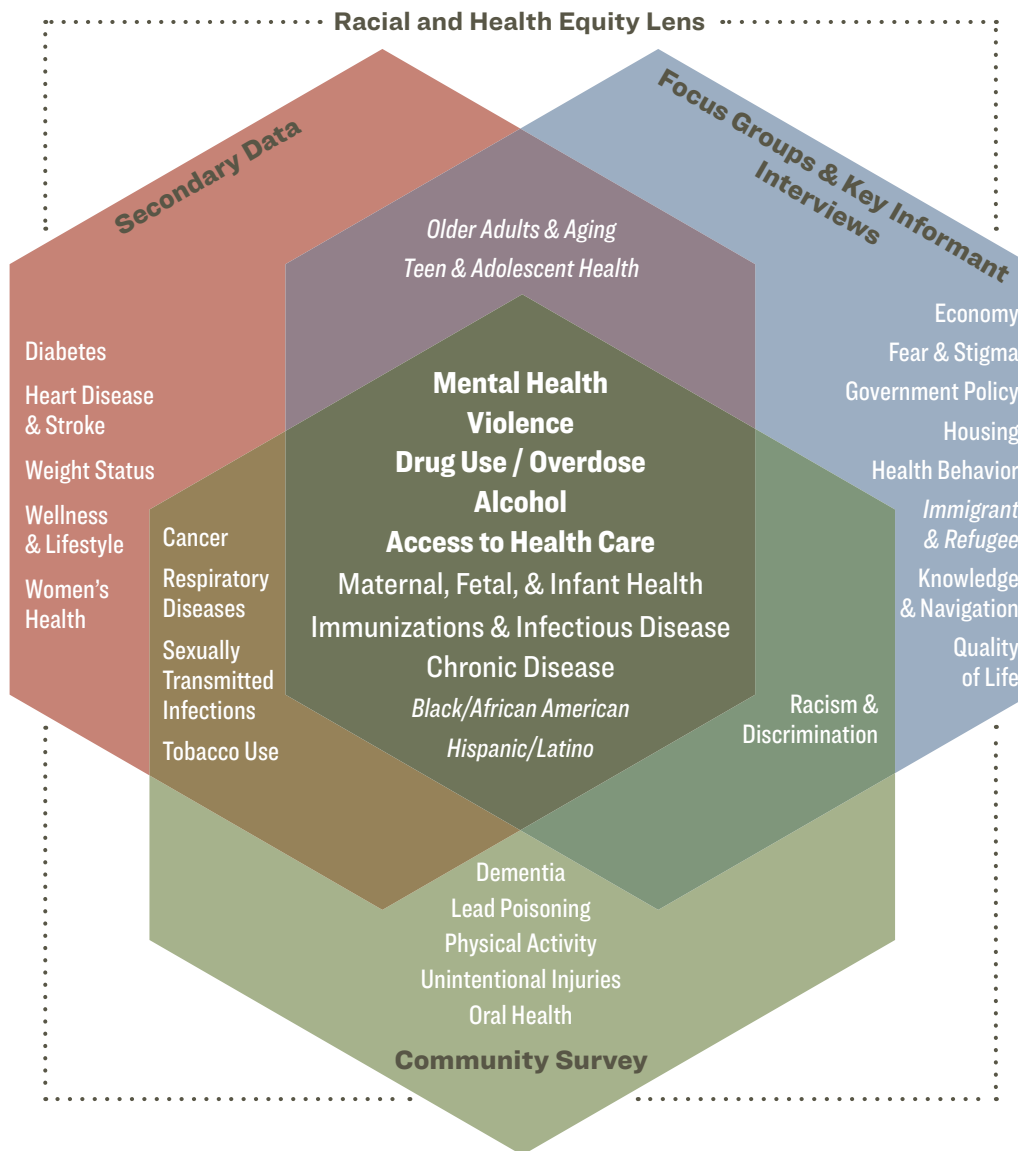
Top Five Health Issues

This summary includes information synthesized from all data inputs. The analysis team used a variety of methodologies to analyze data and frame findings related to health issues, priority populations, and determinants of health.



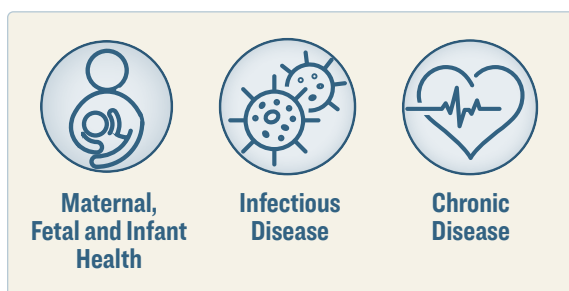
While multiple health issues and needs were elevated throughout primary and secondary data, the top five health issues are consistently present across all data inputs. A closer look at the primary data and secondary data for each of these five health issues is provided in this report beginning on page 10.

Intersections of Determinants, Populations and Health Issues by Data Source



Issues of Concern

In addition to the top five health issues in 2021, other important areas of concern were identified in the assessment. Like the top five health issues, these are persistent and chronic issues facing the community that show significant health disparities by race and ethnicity.



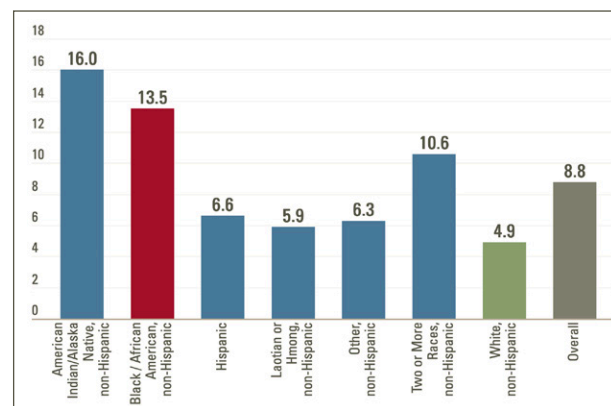
MATERNAL, FETAL, AND INFANT HEALTH

Maternal, fetal, and infant health is a complex issue with sharp disparities facing the Black/African American community in particular. There are numerous secondary health indicators that speak to the severity of the issue, including:

- Babies with low birth weight
- Babies with very low birth weight
- Preterm births
- Preterm labor and delivery hospitalizations
- Infant mortality rate
- Mothers who received early prenatal care

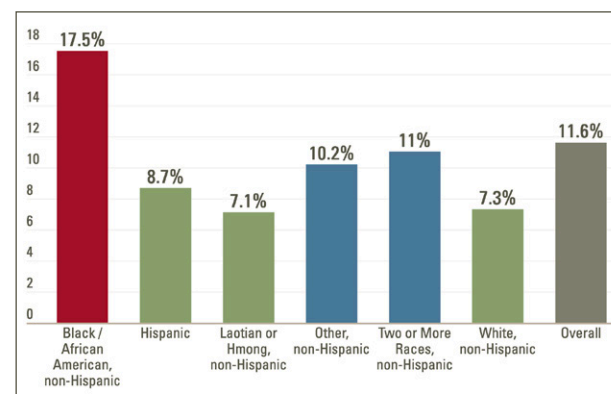
When analyzing low birth weight and infant mortality data, significant gaps are revealed between Black/African American babies and babies of other races and ethnicities.

Infant Mortality // Milwaukee County DEATHS PER 1,000 LIVE BIRTHS



Source: Wisconsin Department of Health Services (2018-2020)

Babies with Low Birth Weight // Milwaukee County



Source: Wisconsin Department of Health Services (2020)

Community input elevated the same concern related to infant mortality and the disparities that exist in African American communities. Stakeholders often linked the issue to access and utilization of prenatal care, infant care practices, and lack of trust in the health care system.

INFECTIOUS DISEASE

Infectious disease was further spotlighted in 2021 due to the inclusion of COVID-19 as an immediate health issue. When asked about top health issues in their community, 38% of community health survey respondents named infectious disease as an issue, with a rate of 43% in the older adult population subgroup. Infectious disease indicators include immunizations and communicable diseases such as influenza, pneumonia, HIV, other sexually transmitted infections (STIs), and COVID-19.

Important secondary data health indicators for infectious disease include:

Indicators: Health Compass Milwaukee

CASES PER 100,000

Indicator	Milw County	WI
Chlamydia incidence rate (2020)	1129	449
Gonorrhea incidence rate (2019)	538	152
HIV prevalence rate (2019)	393	132
Syphilis incidence rate (2019)	11	3

- COVID-19 incidence rate
- Chlamydia incidence rate
- Gonorrhea incidence rate
- Syphilis incidence rate
- Age-adjusted ER rate due to immunization – preventable pneumonia and influenza
- Age-adjusted hospitalization rate due to immunization – preventable pneumonia and influenza

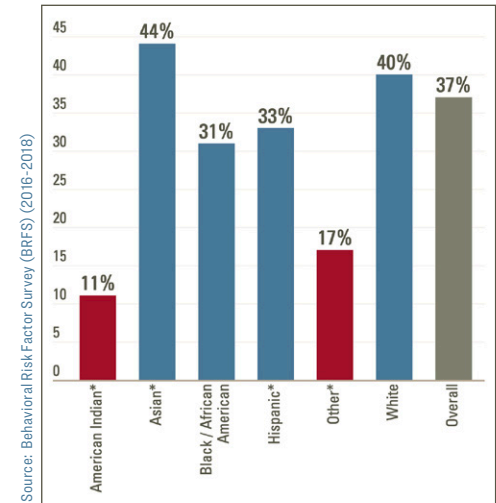
The flu vaccination data was captured prior to the pandemic and does not reflect vaccine hesitancy influenced by COVID-19.

A Note about COVID-19

This 2021 community health survey asked about COVID vaccination status, but the convenience sample over represented groups with higher vaccine uptake..

When discussing COVID-19 vaccines, community stakeholders noted: a challenge with communicating and messaging to the community, spread of vaccine misinformation, delayed trauma and mental health challenges associated with the pandemic, and the need to focus on priority populations, such as the elderly and children and youth, for vaccine outreach and education.

Adults Who Received Flu Vaccines Milwaukee County



*Value may be statistically unstable and should be interpreted with caution.

CHRONIC DISEASE

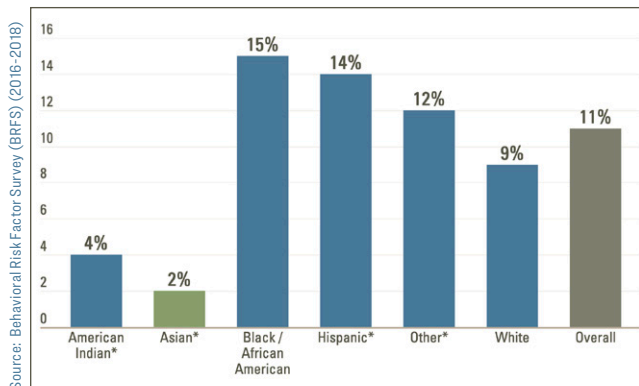
Chronic disease remains a consistent health issue in Milwaukee County. It includes health conditions such as diabetes, heart disease, obesity, and asthma. Chronic disease is related to health behaviors such as physical activity, exercise, and healthy eating and is shaped by environmental conditions and upstream determinants of health, including equitable access to healthy foods and clean and safe communities.

Indicators: Health Compass Milwaukee

Indicator	Milw County
Adult obesity rate (2019)	38%
Adults with diabetes (2018)	11%
Adults 65+ with diabetes (2018)	26%
Adults with asthma (2019)	13%

When asked about top health issues in their community, 35% of survey respondents overall and 41% of Black/African American respondents named chronic disease as a health issue.

Adults With Diabetes // Milwaukee County



*Value may be statistically unstable and should be interpreted with caution.

Most chronic disease indicators trend higher in male populations except for asthma, which has a higher rate in females – nearly 15% versus 10% in males.

There are gaps by race and ethnicity across all chronic disease indicators. The comparison of adults with diabetes is one example.

Priority Populations

The distinction of priority populations in the CHNA was intended to identify groups with the greatest health disparities and/or risk for poor health. This framework also serves to support population-specific health improvement planning, investments, and program development. This table shows each priority population and just one health indicator that reflects its unique health challenge.

Priority Population	Indicator
Black / African American	Blacks face twice the 'number of years of life lost,' compared to Whites.
Hispanic / Latino	70% of Latinos have health insurance, compared to a 95% coverage rate for Whites.
Children & Youth (< 18 years old)	Nearly 1 in 4 children live in poverty, a rate 3x more likely for Latinos and 4x more likely for Blacks, compared to Whites.
Older Adult / Elderly (> 65 years old)	Older adults face increased social isolation, more than 1 in 3 live alone.

Technical Notes on Racial/Ethnic Groups The capability to analyze and present data based on these priority populations relies on the data inputs available. We recognize that “race” and “ethnicity” are social categories, not biological ones. The majority of the CHNA’s secondary data relies on U.S. Census racial and ethnic categories that are not as detailed as current population dynamics in Milwaukee; and may sometimes be, but are not always, exclusive. The community health survey asked respondents to self-identify more detailed Hispanic ethnicities, but we also adhered to Census categories to align findings across sources.

A final comment regards the use of the term “people of color” (POC). The term has grown in usage as a way to distinguish racial and ethnic groups who do not identify as “white.” The term POC is also used in place of “racial minorities” because in certain locations, POC are no longer racial minorities, statistically speaking. This is true in hyper-segregated urban areas like Milwaukee.

Top Health Issues In Detail

A closer look at the primary and secondary data for each of the top five health issues is provided in this section. They are presented in the order of how they ranked in the synthesis process. As previously noted, most secondary data used for this CHNA were collected from Health Compass Milwaukee, with Conduent HCI's Data Scoring Tool used to identify and rank pertinent findings.

When looking at the primary data, it is important to note that the top health issues remained consistent across community health survey respondents when broken down by subgroups, as seen in the table.

COMMUNITY HEALTH SURVEY:

Top Five Health Issues, Overall and by Subgroup

Top Five Issue Areas	County Overall n = 8616	Black/ African American n = 642	Hispanic/ Latino n = 463	High-Need Zip Codes (11) n = 1535	Households with Children n = 1145	Older Adult /Elderly n = 3450
Mental health	50.4%	51.1%	58.2%	49.5%	62.0%	37.4%
Violence *	35.1%	56.9%	27.4%	43.5%	35.2%	32.8%
Drug Use	34.8%	42.7%	37.7%	44.1%	36.3%	33.3%
Alcohol	30.7%	32.7%	36.6%	33.3%	30.4%	30.4%
Access **	19.4%	24.7%	29.5%	23.0%	27.0%	11.2%
Issues of Concern						
Infectious Disease ***	38.3%	29.6%	31.0%	30.2%	34.9%	43.3%
Chronic Disease	35.3%	40.7%	34.3%	34.9%	30.1%	38.7%

* violence as the perception of crime in community

** represents one of multiple access questions

*** primarily due to COVID-19



Issue 1: Mental Health



COMMUNITY INPUT

PRIMARY DATA

- ▶ Mental health care, resources and available providers are disproportionate to community need
- ▶ Intersects most often with violence, community safety, and health care access

HEALTH INDICATORS

SECONDARY DATA

- ▶ Poor mental health days
- ▶ Adult hospitalizations due to mental health
- ▶ Pediatric ER rate due to mental health
- ▶ Depression: Medicare population

Mental health includes our emotional, psychological, and social well-being and can be defined as a state of successful mental function resulting in productive activities, fulfilling relationships, and the ability to adapt and cope with challenges. Mental health is essential to personal well-being, relationships, and the ability to contribute to society. Mental illnesses are conditions that impact one's thinking, feeling, behavior, and mood. The Centers for Disease Control and Prevention (CDC) notes that while poor mental health and mental illness are often used interchangeably, they are not the same.

Mental health and physical health are interconnected. An unmet mental health need can lead to further complications and increase future health care, social and economic costs. The burden of mental illness is among the highest of all diseases.

PRIMARY DATA

Mental health was addressed in the community health survey at both the individual level and community level. When respondents indicated they did not seek mental health services when needed, the survey sought reasons for the lack of utilization.

Focus group participants and key informants emphasized the impact of anxiety and stress that parents and families with children are experiencing because of COVID-19 and its effect on daily life. Social isolation was another common topic discussed during these conversations, specifically mentioning the impact on older adults and community members with different abilities. Separation from routines and social networks was cited as impacting mental health for these groups. Finally, stakeholders discussed the challenge of lack of access to mental health services, which aligns with survey findings. Cost, availability of appointments, system navigation, and knowledge about available services were all mentioned as barriers to care.

COMMUNITY HEALTH SURVEY:

Reason for Not Seeking Mental Health Services	
Cost – too expensive/can't pay	38%
Wait is too long	24%
Office/service/program has limited access or is closed due to COVID-19	18%
Previous negative experience receiving care or services	18%
I did not know how treatment would work	17%
Hours of operation did not fit my schedule	14%
Lack of trust in health care services and/or providers	14%
Insurance not accepted	14%
I worried that others would judge me	13%

SECONDARY DATA

Based on the secondary data scoring results, Mental Health & Mental Disorders was identified as a top health issue in Milwaukee County.

Mental Health and Mental Disorders

HCI Score	Indicators: Health Compass Milwaukee	Milw. County	WI
3.00	Depression: Medicare Population (2018)	21%	18.3%
2.21	Poor Mental Health: 14+ Days in Past Month (2019)	14.4%	13.6%*
2.03	Age-Adjusted ER Rate due to Adult Mental Health (2018-2020) ER visits / 10,000 population 18+ years	129.4 <i>88.7</i>	72.1
2.03	Age-Adjusted ER Rate due to Adult Suicide or Intentional Self-inflicted Injury (2017-2019) ER visits / 10,000 population 18+ years	57.1 <i>39.3</i>	46.6
2.03	Age-Adjusted ER Rate due to Pediatric Mental Health (2017-2019) ER visits / 10,000 population <18 years	67.9 <i>48.1</i>	38.6
2.03	Age-Adjusted Hospitalizations Rate due to Adult Mental Health (2017-2019) Hospitalizations / 10,000 population 18+ years	83.4 <i>57.8</i>	53.5

Note: Milwaukee County rates in italics represent the previous reporting period for comparison *U.S. value

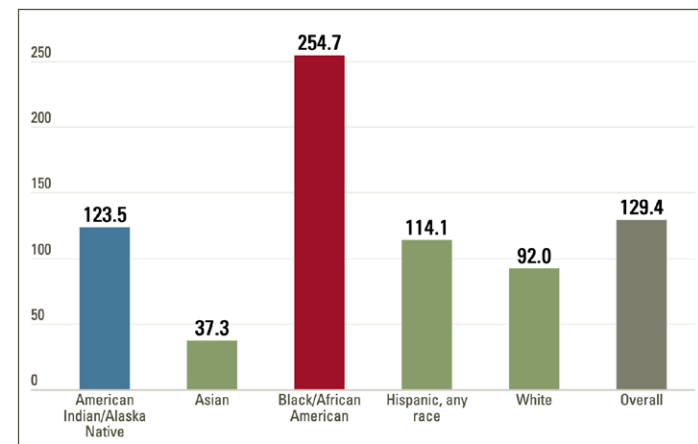
Like depression in the Medicare population, rates of Alzheimer's disease, the most common form of dementia, have also been increasing in recent years for Milwaukee County residents – with rates higher than both Wisconsin and U.S. counties.

Mental health indicators were also identified as having a high racial disparity. Black/African American and American Indian/Alaskan Native adults have the highest rates of ER visits due to adult mental health issues, with Black/African American

adults seeing the largest increase over time periods.

Often, hospitalizations and ER visits due to mental health can be prevented by appropriate access to mental health and behavioral health care services, including prevention and early intervention services. Access to appropriate mental health services is especially important for communities experiencing greater burden of chronic stress due to institutional factors, such as systemic racism and income inequality.

Age-Adjusted ER Rate Due to Adult Mental Health by Race/Ethnicity ER VISITS PER 10,000 POPULATION 18+ YEARS // Milwaukee County



Source: WHA Information Center (2018-2020)

“Mental health and mental conditions, like anxiety and depression, are top health issues... People are in crisis and end up in violent situations or the criminal justice system. Trauma alone has a huge impact on everything.”

KEY INFORMANT

Issue 2: Violence



COMMUNITY INPUT

PRIMARY DATA

- ▶ Concentrated poverty is linked to concentrated violence in multiple forms
- ▶ Community safety issues, such as reckless driving were often mentioned by stakeholders as violence issues

HEALTH INDICATORS

SECONDARY DATA

- ▶ Violent crime rate
- ▶ Age-adjusted death rate due to unintentional injury
- ▶ Homicide rate
- ▶ Children in poverty rate by race and ethnicity

In 2021, violence was ranked as the second leading issue and is interconnected with all other top health issues. Many forms of violence can be difficult to capture in population level data, as violent acts may go unreported. Violence prevention and community safety was a top health issue identified from the community health survey, key informant interviews, and focus group participants.

Milwaukee's [Blueprint for Peace](#) makes a clear connection between violence and health.

Violence – both interpersonal and structural – poses a serious threat to the health, safety, and well-being of Milwaukee residents. The injury, pain, and trauma that results from violence can severely impact the physical and mental well-being and sense of worth and safety of individuals and communities. For example, exposure to violence and lack of safety increases stress and anxiety, which are linked to higher rates of preterm births and low birthweight babies. Violence can also deter people from engaging in healthy behaviors such as exercise or outdoor play. Additionally, violence can result in premature death, high medical costs, and decreased productivity. Not only does violence affect health outcomes, it can deprive individuals and communities of opportunities and perpetuate historic and present day inequities.

Further borrowing from the Blueprint, **interpersonal violence** takes many forms, including firearm violence, homicides, domestic and intimate partner violence, sexual violence, rape, human trafficking, aggravated assault, and child maltreatment and exploitation. **Community violence** is described as deliberate acts by individual(s) not intimately related to the victim and includes issues of public safety, such as carjacking and reckless driving. **Structural violence** can represent excessive use of force by government entities, harmful policies and practices, and other forms of oppression.

“*People don't realize they need help until it's at the crisis point. People normalize living in a crisis situation. Because it's so concentrated in neighborhoods, people see others with the same issues — they feel that it's normal. They take cues of what others in their community are doing.*”

KEY INFORMANT

PRIMARY DATA

Community input to the CHNA elevated community safety themes such as reckless driving, civil unrest, and racial tension as well as violent crime and shootings. Survey data below show respondents' perception of violence-related issues and lack of economic opportunities as a root cause.

COMMUNITY HEALTH SURVEY:

Perceptions of Violence, Crime and Determinants, Overall and by Subgroup

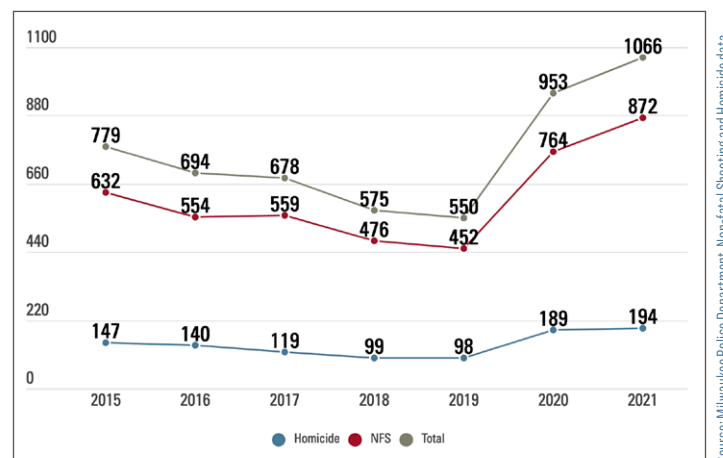
Perceptions	County Overall	Black/ African American	Hispanic/ Latino	High-need Zip Codes	Households with Children	Older Adult /Elderly
Crime is not a major issue in my neighborhood (Yes)	54.3%	33.9%	40.8%	29.5%	56.6%	55.6%
I feel safe in my neighborhood (No)	17.1%	41.7%	32.7%	42.0%	17.9%	14.9%
There is a feeling of trust in law enforcement in my community (No)	23.3%	57.8%	36.3%	47.6%	28.6%	15.7%
Well-paying jobs for 18+ (No / Don't know)	34.6%	54.2%	42.0%	47.3%	34.7%	30.7%
		23.1%	31.1%	24.4%	25.3%	33.4%
Available jobs for <18 (No / Don't know)	19.3%	39.2%	25.0%	32.9%	20.9%	18.6%
		33.9%	43.3%	34.4%	32.2%	44.5%

While Milwaukee County residents overall reported their neighborhoods relatively safe to live in, those who lived in high-need zip codes and respondents of color were less likely to report that their neighborhood is safe. This reflects the geographically concentrated nature of the problem and segregation of communities in Milwaukee.

SECONDARY DATA

The secondary data provides information on key types of violence such as homicides, non-fatal shootings (NFS), and violent crime, as well as contributing socioeconomic factors.

Homicides and Non-Fatal Shootings Victim Frequency by Year City of Milwaukee



Data provided by Violence Response Public Health and Safety Team (VR-PHAST) 2021 Incident Report, Medical College of Wisconsin, Institute for Health and Equity

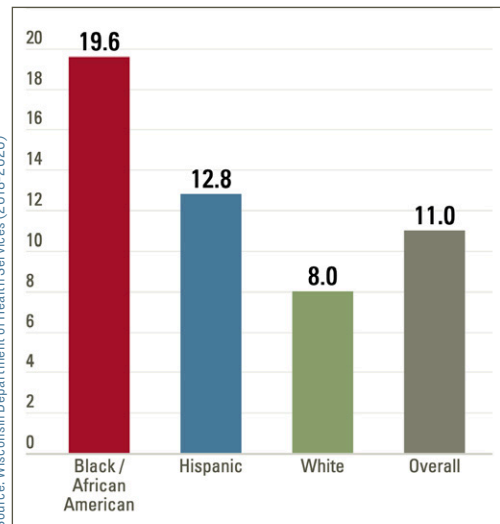
Source: Milwaukee Police Department, Non-Fatal Shooting and Homicide data

Given the tremendous array of publicly available crime data for Milwaukee County, Conduent HCI's data analysts instead looked to demographic indicators that have a strong correlation with populations affected by violence, which when pointing to economic factors and social isolation, may also suggest strategies for prevention.

Violence and Key Determinants

HCI Score	Indicators: Health Compass Milwaukee	Milw County	WI
2.74	Violent Crime Rate (2014-2016) crime / 100,000 population	1019.7	298.1
2.71	Homeownership (2015-2019)	45.1	58.7
2.44	Median Monthly Owner Costs for Households without a Mortgage (2015-2018)	\$624	\$553
2.41	Social Associations (2018)	8.6	11.5
2.12	Children Living Below Poverty Level (2015-2018)	27.5%	14.9%

Age-Adjusted Death Rate Due to Motor Vehicle Collisions by Race/Ethnicity DEATHS / 100,000 POPULATION Milwaukee County



Community stakeholders often mentioned issues of community safety when talking about violence. The age-adjusted death rate due to motor vehicle collisions has been increasing significantly for Milwaukee County. This indicator was flagged as having a high disparity and has increased over the last four time periods of data collection. Death rates are much higher for Black/African American populations than for White, Asian, and Hispanic groups.



Issue 3: Drug Use & Overdose



The 2021 CHNA drives the importance of drug use and alcohol abuse as separate issues given the severity and prominence of each issue in the data sources. Although alcohol and tobacco are substances, they are not included in this section, as those issues are typically reported separately in state and local data sets.

The previous issues of mental health and violence prevention are interrelated with both forms of substance use and include overlapping indicators. When an individual uses a substance frequently that impairs all or a portion of their life, this is known as a substance use disorder or substance abuse.

COMMUNITY INPUT

PRIMARY DATA

- ▶ Drug use and abuse was linked to other issues such as crime, community safety, safe driving and sex trafficking
- ▶ An association was made with the lack of mental health professionals and access to timely treatment

HEALTH INDICATORS

SECONDARY DATA

- ▶ Age-adjusted death rate due to all drug overdose
- ▶ Age-adjusted death rate due to all opioid overdose
- ▶ ER rate due to opioid use (by age, race and ethnicity)

PRIMARY DATA

In Milwaukee, drug use and drug overdose are issues that disproportionately affect young adults. Community stakeholders raised concerns related to access to care and treatment resources. Crime, trauma, and access barriers exacerbated by the COVID-19 pandemic were common topics of discussion.

“*Drug use is everywhere. It has touched every neighborhood in my community. It is so easy to get opiates and street drugs, and they are increasingly tainted with fentanyl and other dangerous substances. We need to ramp up our efforts in prevention as well access to treatment – but it will take everyone working together. Families need more resources to know what to do.*”

PUBLIC HEALTH OFFICER



SECONDARY DATA

These secondary data scoring results characterize drug use-related indicators that identify it as a top health issue, with drug poisoning and overdose scoring particularly high.

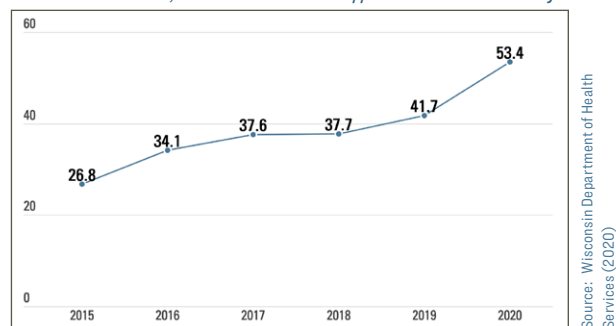
Drug Use and Overdose

HCI Score	Indicators: Health Compass Milwaukee	Milw County	WI
3.00	Death Rate due to Drug Poisoning (2017-2019) deaths / 100,000 population	39.1	19.8
2.47	Age -Adjusted Death Rate due to all Drug Overdose (2020) deaths / 100,000 population	53.4 <i>41.7</i>	27.2
2.03	Age -Adjusted Drug and Opioid-Involved Overdose Death Rate (2020) deaths / 100,000 population	45.5 <i>34.0</i>	22.4
2.03	Age -Adjusted ER Rate due to Opioid Use (2018-2020) ER visits / 10,000 population 18+ years	10.2 <i>7.7</i>	5.4
2.03	Age -Adjusted ER Rate due to Substance Use (2018-2020) ER visits / 10,000 population 18+ years	42.2 <i>29.7</i>	20.9

Note: Milwaukee County rates in *italics* represent the previous reporting period for comparison

Drug Overdose Trend

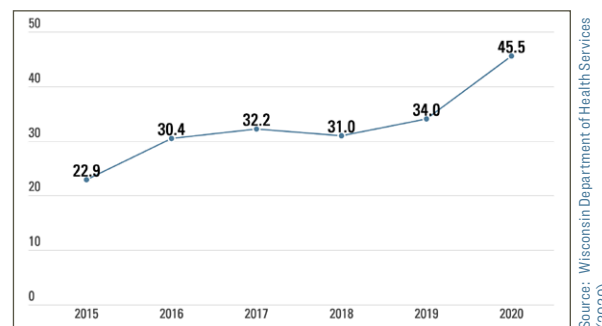
DEATHS PER 100,000 POPULATION // Milwaukee County



Milwaukee County's death rate due to drug poisoning is among the worst in Wisconsin and U.S. counties. Both age-adjusted death rate due to all drug overdoses and death rate due to drug poisonings have increased significantly over time. Additionally, Milwaukee County has the worst rates for age-adjusted ER and hospitalization due to alcohol, opioid, and substance use in the state.

Opioid Overdose Trend

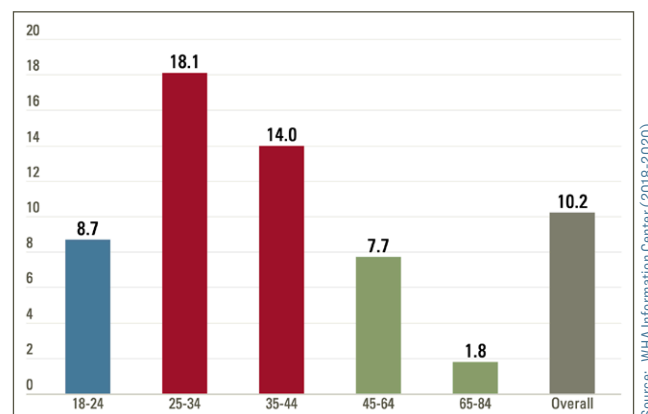
DEATHS PER 100,000 POPULATION // Milwaukee County



These indicators are consistently trending upward when looking at 2018 through 2020 data. While this issue affects individuals and families across racial and ethnic groups and socioeconomic status, it is particularly burdening young adults.

Opioid Use By Age

ER VISITS PER 10,000 POPULATION // Milwaukee County



Please note that crude age group rates are being compared to the overall age-adjusted value.

Issue 4: Alcohol Misuse and Abuse



Milwaukee County has consistently faced alcohol misuse and abuse as a profound health issue with excessive alcohol consumption having dire impacts on families, communities, and the economy. Excessive alcohol consumption is a problematic health behavior in Milwaukee and across the state, driven by cultural practices across most age groups. It includes binge drinking, heavy drinking, and any alcohol consumption by youth under age 21, or by pregnant women.

Binge drinking is defined as five or more drinks for males and four or more drinks for females on an occasion. At a zip code level, almost all Milwaukee County zip codes rank in the bottom 25% nationwide for binge drinking.

PRIMARY DATA

Binge drinking was addressed in the community health survey by asking respondents if they binge drink either daily, weekly, or monthly. Nearly 23% of respondents named that they binge drink, which is in line with secondary data trends in Milwaukee.

COMMUNITY INPUT

PRIMARY DATA

- ▶ Alcohol abuse and misuse elevated as important issue across groups to include underage drinking, binge drinking and DWI's
- ▶ Alcohol consumption – particularly binge drinking promoted by Wisconsin culture and across age groups

HEALTH INDICATORS

SECONDARY DATA

- ▶ Adults who binge drink
- ▶ Binge drinking by geography
- ▶ ER rate due to alcohol use by age

SECONDARY DATA

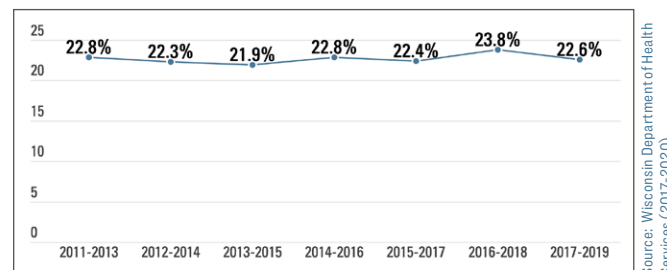
Secondary data can help us understand this issue when it intersects with health care. Milwaukee County has higher age-adjusted ER and hospitalization rates due to alcohol compared with Wisconsin overall.

Alcohol Misuse and Abuse

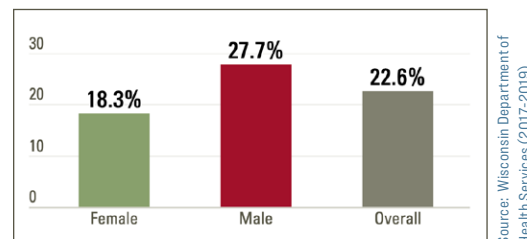
HCI Score	Indicators: Health Compass Milwaukee	Milw County	WI
2.47	Age -Adjusted ER Rate due to Adult Alcohol Use (2018-2020) ER visits / 10,000 population	76.8 <i>52.6</i>	43.5
2.03	Age -Adjusted Hospitalization Rate due to Adult Alcohol Use (2018-2020) hospitalizations / 10,000 population	37.0 <i>24.4</i>	24.6

Note: Milwaukee County rates in italics represent the previous reporting period for comparison

Adults Who Binge Drink



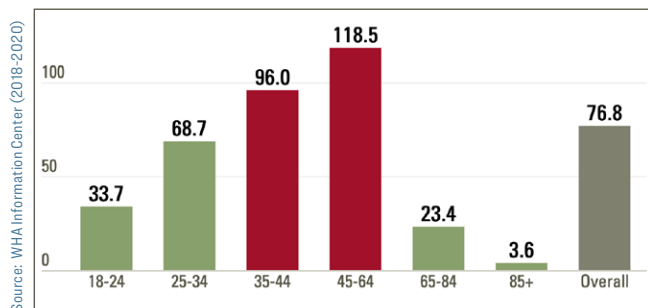
Binge Drinking by Gender



When looking at ER Rate due to alcohol abuse by age groups in Milwaukee, those residents in the 45-64 age groups have the highest rate, followed by those aged 35-44. This suggests that pervasive nature of the binge drinking and alcohol abuse across age groups and geographies.

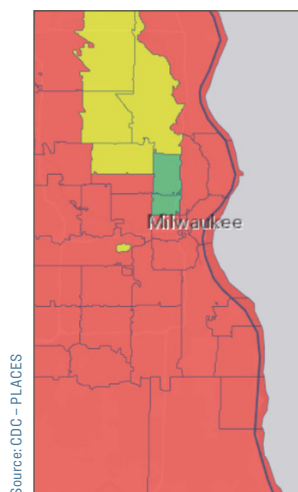
ER Rate due to Alcohol Abuse by Age

ER VISITS / 10,000 POPULATION // Milwaukee County



Please note that crude age group rates are being compared to the overall age-adjusted value.

Adults who Binge Drink



This map shows distribution of binge drinking by zip codes in Milwaukee County relative to all zip codes in the U.S. Red zip codes indicate those that are **in the bottom 25% nationwide**, or worst quartile. Almost all of the county regardless of location — whether city or suburbs — ranks high for binge drinking.

Alcohol misuse and abuse is not only linked to adverse health effects but negative economic consequences across communities. According to a 2019 UW-Madison study, binge drinking has an annual economic cost of \$594.3 million in Milwaukee County – a cost that is shouldered by health care, criminal justice, and through lost productivity in other sectors. Addressing alcohol misuse and abuse will have a positive impact on health as well as the local economy.

“*Treatment alone will not solve this problem. We have to work upstream to change our culture of drinking. Alcohol has become a part of everyday behavior, social or not, with binge drinking often seen as permissible behavior across our community and state. I see the results of intoxication every day - injuries of every sort - falls, car crashes, and too many innocent victims to mention.*”

ER PHYSICIAN



Issue 5: Access to Health Care



Access to health care services was a top health issue identified from the community survey, key informants, and the safety net clinic focus group. Cost of care was a

common barrier mentioned, including general cost to access care, lack of funds for purchasing needed medication, as well as being uninsured or underinsured.

Mental health, drug use, and alcohol abuse all intersect with health care access and can have a significant impact on hospitalizations and ER visits, as well as health outcomes.

COMMUNITY INPUT

PRIMARY DATA

- Cost of care and provider shortages are main barriers
- Need to build trust and have providers that look like the populations they serve
- Need to improve health literacy and numeracy
- Lack of funds needed for medications

HEALTH INDICATORS

SECONDARY DATA

- Adults with health insurance by race/ethnicity
- Routine check-up within the past year
- Adults with flu vaccination by race/ethnicity

PRIMARY DATA

Delays in care (especially for routine care / chronic disease management) due to COVID-19 were also specifically mentioned by community stakeholders. The need for improved and increased culturally competent health care services, offered in languages that are spoken in the community, were frequently expressed themes.

“*I wish everyone knew how important it is to have a ‘medical home.’ Affordable and accessible primary care is the gateway to chronic disease management, early pre-natal care, behavioral health services, medications and so much more. There are excellent safety net clinics in our community where cost is not a barrier. For example, we work with patients to get affordable medications, which is so important for people with chronic conditions. We just need to make sure they know we’re here.”*

COMMUNITY HEALTH CENTER EXECUTIVE

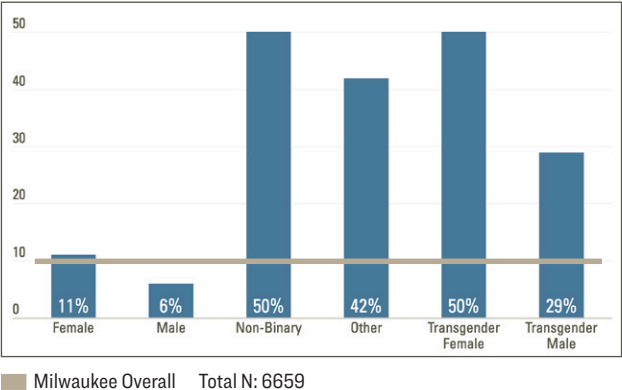
COMMUNITY HEALTH SURVEY: Perceptions of Community Health Care Access

Perceptions	County Overall	Black/ African American	Hispanic/ Latino	High-need Zip Codes	Households with Children	Older Adult /Elderly
There are <i>quality</i> health care services in my community (No, Don't know)	4.8%	16.1%	12.0%	10.9%	8.2%	2.1%
	7.0%	13.3%	13.9%	12.8%	7.5%	5.4%
There are <i>affordable</i> health care services in my community (No, Don't know)	19.4%	24.7%	29.5%	23.0%	27.0%	11.2%
	29.3%	29.9%	29.9%	30.5%	25.2%	30.3%
Individuals in my community can access health care services regardless of race, gender, sexual orientation, immigration status, etc. (No, Don't know)	12.1%	16.0%	17.2%	17.5%	14.8%	8.3%
	34.9%	31.8%	34.7%	36.0%	33.2%	36.2%

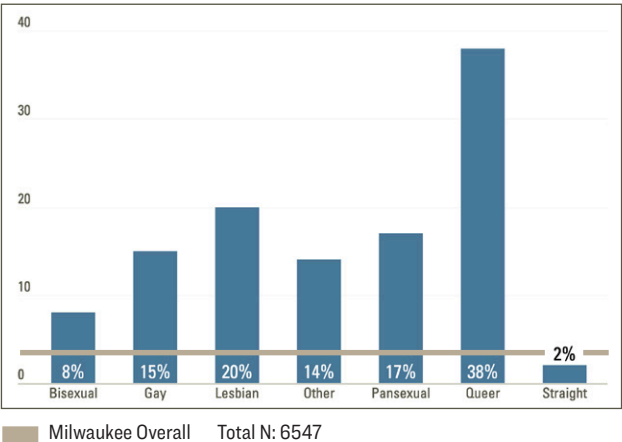
Community stakeholders expressed the following as barriers to accessing health care services: immigration status, lack of health care coverage, language barriers, and socioeconomic status. Many expressed concerns that there is insufficient understanding among residents about how to access health care more effectively. The cost of health care services was frequently cited by key informants as a barrier to care - particularly the cost of medications.

In addition to language barriers among medical personnel, stakeholders noted a lack of training around evidence-based medicine when treating people of a certain color, ethnicity, and gender and/or sexual identity. These tables show community health survey responses regarding health care access by gender and sexual orientation.

COMMUNITY HEALTH SURVEY:
I feel I am treated differently because of my gender when receiving health care



COMMUNITY HEALTH SURVEY:
I feel I am treated differently because of my sexual orientation when receiving health care



Access to Health Care and Quality

HCI Score	Indicators: Health Compass Milwaukee	Milw County
2.00	No Recent Dental Visit (2017)	29%
1.94	Adults with Doctor or Nurse Practitioner as Primary Health Care (2018)	62%
1.94	Women who Received a Pap Smear within 3 Years (2015)	81%
1.91	Adults Who Have Ever Been Told They Have a Depressive Disorder (2016-2019)	22.2%
1.91	Adults with Diabetes (2016-2018)	10.6%
1.76	Clinical Care Ranking among 72 Wisconsin Counties (2021)	58

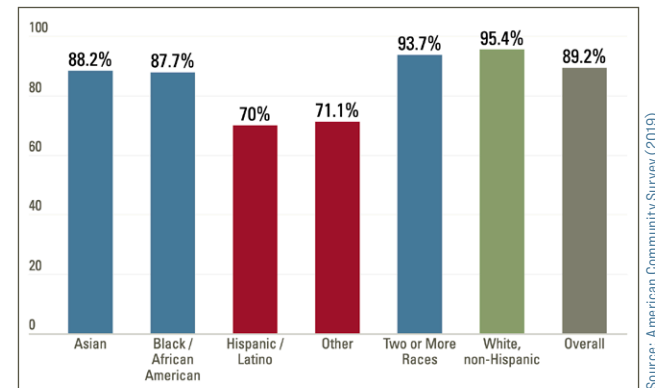
SECONDARY DATA

Based on the secondary data scoring results, access to health care was identified as a lower priority need. However, further analysis revealed specific indicators related to access.

Milwaukee County falls behind Wisconsin and other counties for adults without health insurance, no recent dental visits, and clinical care ranking (for access and quality as reported in the County Health Rankings). Additionally, many of these indicators are seeing significantly worsening trends. The percent of adults with diabetes has significantly increased over recent years, while adults who see a doctor or nurse practitioner for primary health care and women who have received a pap smear within 3 years are decreasing significantly over time.

Adequate and affordable health insurance coverage is important for health care access and improving the health of individuals and our community. In Milwaukee, significant gaps exist in coverage between racial/ethnic groups.

Health Insurance Coverage by Race // Milwaukee County



Key Determinants of Health

All health issues identified in the CHNA, when viewed through an equity lens, reveal stark gaps in health outcomes and a strong connection to determinants of health. The key determinants that factored most prominently in both primary and secondary data sources were racism / discrimination and housing.



Racism and Discrimination and Health

COMMUNITY HEALTH SURVEY: Perception of Reasons for Health Disparities

Question: On average, people of color (POC) in the U.S. have worse health outcomes compared to White people. Do you think any of the following are reasons for the difference?

Major Reason	County Overall	Black/ African American	Hispanic/ Latino	High-need Zip Codes	Households with Children	Older Adult /Elderly
Historic gaps in wealth	63.5%	83.9%	67.9%	72.5%	63.9%	63.0%
Structural/systemic racism	57.1%	85.6%	65.0%	69.0%	63.3%	52.8%
POC have less access to quality education	45.0%	65.1%	57.9%	53.3%	50.3%	40.3%
POC have less career opportunities	42.1%	72.5%	53.8%	54.5%	45.6%	38.6%
POC have less access to quality housing	50.9%	75.8%	58.7%	60.3%	63.9%	48.0%
POC are more likely to be exposed to bad environmental conditions	50.1%	76.0%	53.4%	58.7%	50.8%	49.9%
Doctors are less likely to provide same care to POC	26.0%	56.8%	36.1%	37.5%	36.4%	15.5%
POC are less likely to have health care/insurance	49.9%	70.0%	54.2%	56.0%	51.8%	47.4%
POC have less opportunities for healthy activities/eating	28.6%	47.3%	34.6%	35.2%	33.3%	24.8%
POC are genetically less healthy than whites	7.7%	20.8%	15.2%	12.7%	9.4%	6.0%

Survey participants indicated that historical gaps in wealth and structural, or systemic racism are major reasons for people of color in the U.S. having worse health outcomes as compared to Whites. The previous table shows that people of color and those living in high-need zip codes report higher personal experience in all elements related to bias, racism, and access to wealth, education, and housing.

COMMUNITY HEALTH SURVEY:

Life Challenges with Social and Economic Conditions

Question: Thinking about your own life, do you feel that any of the following have been a challenge?

Response: “Yes”

Life challenge	County Overall	Black/ African American	Hispanic/ Latino	High-need Zip Codes	Households with Children	Older Adult /Elderly
Unconscious bias	34.1%	58.5%	52.6%	43.1%	38.7%	26.3%
Individual acts of racism/ discrimination	20.2%	56.0%	42.6%	32.2%	24.0%	15.3%
Structural or systemic racism	19.9%	63.8%	41.8%	33.4%	25.2%	15.4%
Limited access to wealth	20.2%	45.6%	35.0%	31.9%	23.7%	12.0%
Limited access to quality education	11.1%	31.1%	23.4%	19.6%	16.4%	6.4%
Limited access to career opportunities	20.4%	44.2%	37.6%	29.2%	26.8%	10.4%
Limited access to quality housing	13.1%	41.0%	26.1%	24.4%	15.4%	8.8%

Housing and Health

Milwaukee is considered hyper-segregated, with one of the highest levels of Black-White segregation of any major metro area. Hyper-segregation aligns with higher concentrations of poverty and decreased access to health care.

Housing can be understood through the lenses of place, space, and economics. Where housing is located is closely linked to segregation, environmental conditions (pollutants, etc.), community safety, and access to transportation.

The space of a home, or the quality of housing, affects health in several ways, including lead exposure, lack of adequate facilities and utilities, and overcrowding. Further, there is a correlated toll on stress and mental health for individuals who are homeless, precariously housed, or living in poor quality housing.

Housing affordability and homeownership are key economic factors that connect housing to health. High or severe housing cost burden (when a household spends 30%+ and 50%+ of income on housing costs, respectively) is directly correlated to food insecurity, more children living in poverty, and more people reporting fair or poor health. These economic challenges and their health effects perpetuate over time when barriers to homeownership diminish opportunities for inter-generational wealth and improved economic security.

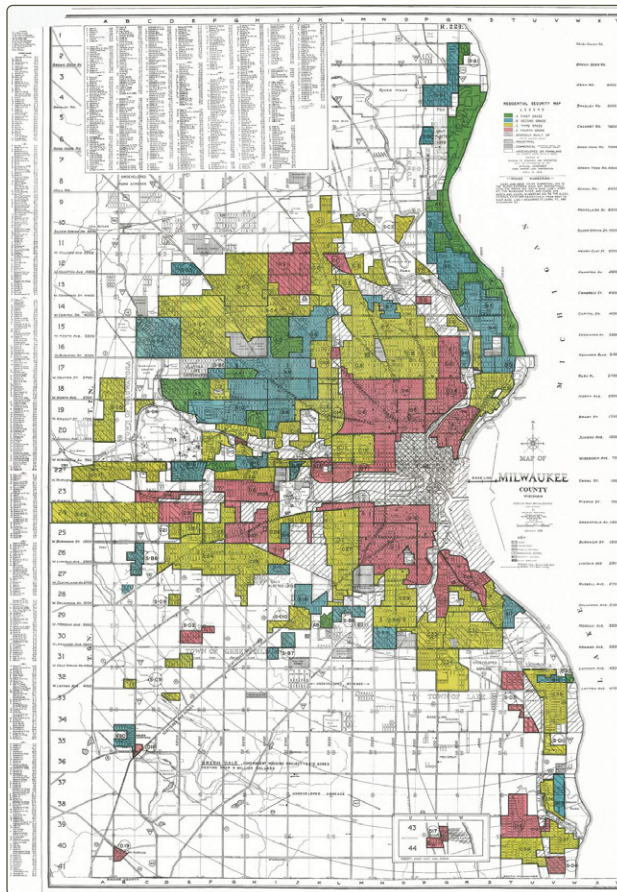
Racism and discrimination intersect with housing when looking at historical causes. Milwaukee’s redlining map in the 1930’s, shown on the following page, reflects policy-driven structural racism and discrimination that restricted housing access over many years. Communities of color have been forced into neighborhoods with declining housing stock and worsening community and environmental conditions.

“Putting it in an historical context – those aren’t accidental neighborhoods. They were designed through redlining and reducing people’s access to better jobs, housing, and schools. The historical context of racism still lives with us this day and builds barriers to building trust and providing resources to help them overcome these challenges.”

KEY INFORMANT

Redlining refers to a practice in the late 1930’s when the Home Owners’ Loan Corporation (HOLC) graded neighborhoods in Milwaukee and other urban areas in the U.S. The grading was used to identify where it was “safe” to invest and conduct mortgage lending. The HOLC utilized a four-grade color-coded system:

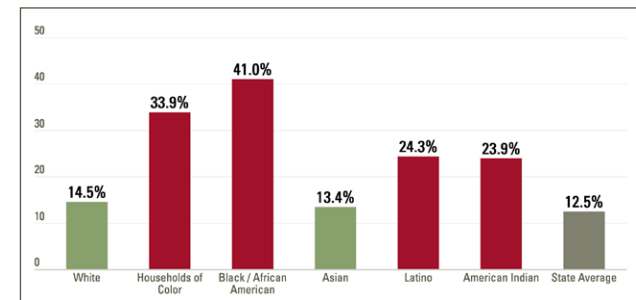
- A** “Best”
- B** “Still desirable”
- C** “Definitely declining”
- D** “Hazardous”



Source: 1938 Home Owners' Loan Corporation Residential Security Map for Milwaukee County

The inter-generational effects of discriminatory housing practices and disinvestment in communities of color have profound impacts on wealth and health today. The table below shows households with zero net worth by race and ethnicity.

Households with Zero Net Worth by Race Milwaukee County



Source: Prosperity Now Estimates using
SIPP and ACS, 2018

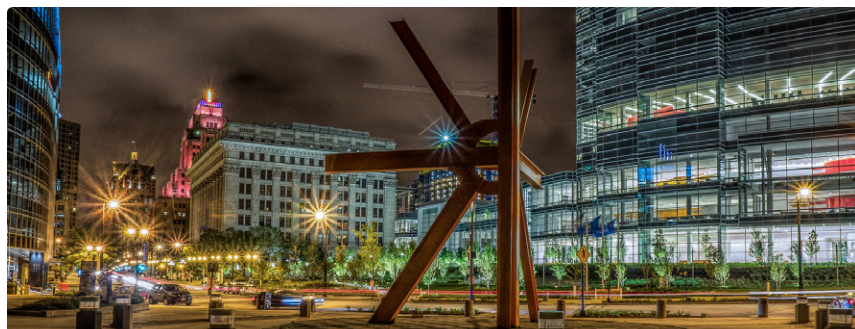
COMMUNITY HEALTH SURVEY:

Housing and Wealth Questions	County Overall	Black/ African American	Hispanic/ Latino	High-need Zip Codes	Households with Children	Older Adult /Elderly
I've had limited access to quality housing Yes	13.1%	41.0%	26.1%	24.4%	15.4%	8.8%
I've had limited access to wealth (savings, retirement, property) Yes	20.2%	45.6%	35.0%	31.9%	23.7%	12.0%
There are affordable places to live in my community No	26.7%	46.6%	42.3%	31.7%	36.3%	18.5%

Housing availability, quality, and safety were topics of the community health survey, and discussed among community stakeholders. Those discussions noted the importance of safe and affordable housing and the connection between living conditions and mental health. As well, stakeholders cited poor housing and unsafe communities as contributors to social isolation among older adults.

NEXT STEPS:

A Collective Approach for Community Health Improvement



It is our hope that the 2021 Milwaukee County Community Health Needs Assessment will inform and sustain community conversations about health equity and health improvement. We also hope these findings will drive individual and collective action among many sectors and stakeholders, including:

- **Hospitals and health systems** to inform their Community Health Improvement Plans, operations, activities, and advocacy
- **Milwaukee Health Care Partnership members** to influence collaborative and cross-sector activities and support outcomes measurement and reporting
- **Public Health departments** to direct municipal-specific and cross-jurisdiction prevention efforts and bolster health strategy
- **Civic and Government organizations** including state, county, and local government agencies to inform policy, regulation, and investments
- **Philanthropic organizations** to identify and evaluate health related funding, innovation, and accountability, including the complex root causes of health disparities
- **Community members** to build on assets, raise up issues, advocate for improvement, and mobilize for action



The health system sponsors of this assessment will continue to pursue opportunities for aligned efforts, while each hospital designs and implements health improvement strategies unique to the communities it serves. To learn more about the community health improvement plans and implementation strategies for each of the Milwaukee area health systems and hospitals, please visit their community benefit web pages:

[Advocate Aurora Health](#)

[Ascension Wisconsin](#)

[Children's Wisconsin](#)

[Froedtert Health](#)

Methodology

DATA SYNTHESIS

All of the data for this assessment were collected by Conduent Healthy Communities Institute (HCI) and analyzed for areas of overlap, frequency, and health impact. The CHNA work team and Conduent HCI analysts conducted several reviews of key findings and themes to yield the health issues, priority populations, and social determinants that comprise the 2021 Milwaukee County Community Health Needs Assessment.

Primary Data: Community Input

Primary data used in this assessment consisted of a community health survey, key informant interviews, and focus groups. Designed by Conduent HCI, all instruments were reviewed, modified, and approved by the CHNA work team.

COMMUNITY HEALTH SURVEY

The online survey was conducted by HCI from August 17 through October 4, 2021, for Milwaukee County residents 18 years and older.

Available in English and Spanish, the survey consisted of 50 questions related to top health needs in the community, individuals' perception of their overall health, individuals' access to health care services, as well as social and economic determinants of health.

The survey was promoted by the Milwaukee Health Care Partnership's members and community partners via their individual channels and patient communications. Those efforts included a joint press release, health systems' websites and healthyMKE.com, social media, emails, newsletters, local events, and other promotional activities that took place during and prior to the seven-week response period.

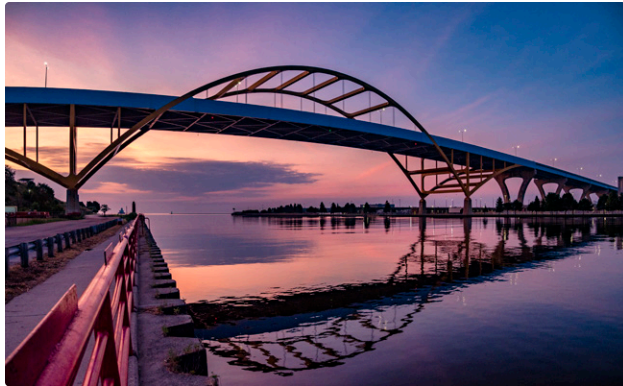
A total of 9,006 surveys were submitted. After eliminating non-Milwaukee County residents and incomplete submissions, the **final overall sample was 8,616**. The completion rate for the survey over the seven-week period was 71.4%. Intended to be a convenience sample, every effort was made to recruit participants from diverse racial, ethnic, and socio-economic populations in the county.

A summary of the community health survey's key findings and the survey instrument is found in the CHNA Appendix on Health Compass Milwaukee.

COMMUNITY STAKEHOLDERS: KEY INFORMANT INTERVIEWS AND FOCUS GROUPS

Because the CHNA was conducted during the COVID-19 pandemic, community stakeholders were engaged through video meetings, rather than in-person data collection. The stakeholders were identified and recruited by the CHNA work team members. All interviews and discussions were facilitated by health systems' community benefit staff, with Conduent HCI staff providing content note taking, transcription, and analysis.

Stakeholders provided insights about perceptions, attitudes, experiences, or beliefs held by community members about the community's health as well as their own health experience. They also provided assessments of current community assets and strategies for community health improvement.



A total of 48 key informant interviews were conducted during August 2021-September 2021. Participants represented communities that include, but were not limited to: African American, Native American, Hispanic, Hmong, the elderly, youth, LGBTQ+, individuals with disabilities, and those living with mental illness and substance use disorders.

Four focus groups totaling 55 participants were conducted during October and November 2021. The groups were selected by the CHNA work team to assure input from organizations representing vulnerable populations and those with expertise in public health. They reflected a:

1. **Safety Net Clinic Focus:** including representatives from Milwaukee's five Federally Qualified Health Centers (FQHCs) and the Free and Community Clinic Collaborative (FC3), a coalition of 25 safety-net clinics that provide free and low-cost health care services to uninsured and underinsured patients
2. **Public Health Focus:** including representatives from the eleven local health departments serving Milwaukee County municipalities
3. **Youth Focus:** including representatives from community-based organizations serving children and adolescents
4. **Socio-economic Focus:** including representatives from community-based organizations serving low-income populations

Notes from the key informant interviews and focus groups were managed by Conduent HCI through the web-based qualitative data analysis tool, *Dedoose*. Interview text was coded using a pre-designed codebook, organized by themes, and analyzed by Conduent for significant observations.

Secondary Data: Health Compass Milwaukee and other Indicators

Most of the secondary data used for this assessment were collected from Health Compass Milwaukee, a web-based community health platform developed by Conduent Community Health Solutions. Additional state and local data were identified by the CHNA workteam. Two tools were used to analyze the secondary data from the Health Compass Milwaukee data platform: HCI's Data Scoring Tool® and the Index of Disparity.

Community Stakeholders and Focus Groups

In 2021, input about our community's most pressing health issues was provided by 103 individuals. Many organizations listed here serve low-income, minority, and medically underserved populations. The **48 key informants*** and **55 focus group participants** represent an array of perspectives from communities that include, but are not limited to: African American, Native American, Hispanic, Hmong, the elderly, youth, veterans, LGBTQ+, individuals with disabilities, and those living with mental illness and substance abuse.

Nicole Angresano

VP Community Impact
United Way of Greater Milwaukee
& Waukesha County

Barbara Beckert

Milwaukee Office Director
Disability Rights Wisconsin

Kirsten Beyer

Associate Professor of Epidemiology
Institute for Health and Equity,
Medical College of Wisconsin

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Journey House

John Chisholm

District Attorney
Milwaukee County

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President & CEO
Lutheran Social Services of
Wisconsin and Upper Michigan, Inc.

Gerald Coon

President & CEO
Diverse and Resilient

Matt Crespín

Executive Director
Children's Health Alliance of
Wisconsin, Milwaukee Oral Health
Coalition

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VP Community Engagement
Bader Philanthropies

Genyne Edwards

Partner
P3 Development Group

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Chief Executive Officer
Community Advocates, Inc.

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President & CEO
YWCA Southeastern Wisconsin

Madeline Gianforte

Executive Director
Core El Centro

Michael Gifford

President & CEO
Vivent Health

Martina Gollin-Graves

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Caroline Gomez-Tom

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President
Feeding America Eastern Wisconsin

Eve Hall

Chief Executive Officer
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Project Manager
Sherman Park BUILD Health

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Director, Office of Violence
Prevention
City of Milwaukee Health Department

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IMPACT, Inc.

Daniel Idzikowski

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Health and Human Services

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Milwaukee County
Behavioral Health Division

Amy Lindner

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United Way of Greater Milwaukee
& Waukesha County

Mayhoua Moua

Executive Director
Southeast Asian Educational
Development of Wisconsin, Inc.

Greg Neu

Executive Director
Milwaukee Rescue Mission /
Safe Harbor

Jeffrey Norman

Acting Chief / Assistant Chief of
Police
Milwaukee Police Department

Erica Olivier

Deputy Commissioner
of Community Health
City of Milwaukee Health
Department

Joshua Parish

Assistant Chief
Milwaukee Fire Department

Marcey Patterson

Faith Based Community
Engagement Liaison
Office of the Mayor – City of
Milwaukee

Carmen Pitre

President & CEO
Sojourner Family Peace Center

Keith Posley

Superintendent
Milwaukee Public Schools

Jeff Roman

Executive Director
Milwaukee County Office of Equity

Darlene Russell

Director of Community Engagement
Greater Milwaukee Foundation

Gina Stip

Executive Director
Zilber Family Foundation

Arman Tahir

President & CEO
Muslim Community and Health
Center

Melinda Wyant Jansen

VP of Programs & Chief Academic
Officer
Boys & Girls Club of Greater
Milwaukee

Daniel Zompchek

Administrator
Milwaukee VA Medical Center

Teri Zywicki

President & CEO
Milwaukee Center for Independence

*Titles and organizations current
at the time of interview

FOCUS GROUPS

Safety Net Clinics: including
representatives from Milwaukee's
five Federally Qualified Health
Centers (FQHCs) and the
Free and Community Clinic
Collaborative (FC3), a coalition
of 25 safety net clinics that
provide free and low-cost health
care services to uninsured and
underinsured patients

Public Health Leaders: including
representatives from the eleven
local health departments serving
Milwaukee County municipalities

Youth Focus: including
representatives from community-
based organizations serving
children and adolescents

Socio-economic Focus:
including representatives from
community-based organizations
serving low-income populations

MILWAUKEE HEALTH CARE ● **PARTNERSHIP**

Established in 2007, the Milwaukee Health Care Partnership is a public/private consortium dedicated to improving health care for low income, underserved populations in Milwaukee County, with the aim of improving health outcomes, advancing health equity, and lowering the total cost of care.

Its members include Advocate Aurora Health, Ascension Wisconsin, Children's Wisconsin, Froedtert Health, Gerald L. Ignace Indian Health Center, Milwaukee Health Services, Inc., Outreach Community Health Center, Progressive Community Health Centers, Sixteenth Street Community Health Centers, Medical College of Wisconsin, City of Milwaukee Health Department, Milwaukee County Department of Health and Human Services, and Wisconsin Department of Health Services.

mkehcp.org

2015 - 2016



City of Milwaukee
COMMUNITY HEALTH ASSESSMENT

Understanding the Health Needs of Our Community



Think Health 
Act Now!
CITY OF MILWAUKEE
HEALTH DEPARTMENT

Letter from the Commissioner of Health



Dear Friends,

The City of Milwaukee Health Department (MHD) is pleased to present to you the 2015-2016 City of Milwaukee Community Health Assessment.

This report is the result of a yearlong effort to gather, analyze and summarize data on the health status and conditions that impact health for residents of the city of Milwaukee.

In developing this report the MHD was part of a broad consortium of partners, led by the Milwaukee Health Care Partnership (MHCP), who collaboratively completed a countywide community health survey, conducted key informant interviews, and collected and analyzed additional secondary data. We thank the MHCP for its leadership.

From this collaborative effort, the MHD has pulled city-specific data wherever possible and combined it with additional data sources available nationally, at the state level, and from our own internal data sources. As a result, this assessment represents a snapshot in time for the city.

Our goal with this assessment is not to prioritize health issues – that activity is part of our key next steps. Rather, this report presents information to the community to serve as the foundation for improving and promoting the health of Milwaukee residents.

Following the release of this assessment, we ask that community members and stakeholders offer feedback and comments. These comments will be used as the MHD convenes a Community Health Improvement Planning Process that will identify priority areas for action as well as those agencies and partners best suited to address these areas.

Public health is a shared responsibility. Improving the health of our community will not happen overnight, nor will it happen even when incredible institutions work alone. It is true everywhere and it is no less true in Milwaukee: To effectively address public health issues, we must look to the ripple effect of collective impact. We must work together.

Working alongside Mayor Tom Barrett, the MHD looks forward to the steps ahead that will build upon this report and will result in a community-driven plan for a healthier Milwaukee.

In good health,

A handwritten signature in black ink, which appears to read "Bevan K. Baker". The signature is stylized with large, flowing loops.

Bevan K. Baker
Commissioner of Health

Acknowledgements

Conducting a large-scale community health assessment (CHA) of the size and scope contained in this report would not be possible without the contributions of many members of our community. The City of Milwaukee Health Department (MHD) wishes to express its gratitude for the contributions made by those who participated in the development of this assessment.

The following agencies participated in activities that contributed in the completion of this report:

- Acelero Learning
- AIDS Resource Center of Wisconsin
- American Cancer Society
- Amy Murphy Consulting
- Aurora Health Care
- Aurora Walker's Point Community Clinic
- Bader Philanthropies, Inc.
- Black Health Coalition of Wisconsin, Inc.
- Boys and Girls Clubs of Greater Milwaukee
- Center for Urban Population Health
- Center for Veterans Issues
- Centro Hispano Milwaukee
- Children's Environmental Health Sciences Core Center
- Children's Health Alliance of Wisconsin
- Children's Hospital of Wisconsin
- Columbia St. Mary's
- Community Advocates
- CORE/El Centro
- Feeding America Eastern Wisconsin
- Froedtert Health
- Gerald L. Ignace Indian Health Center, Inc.
- Hmong American Women's Association
- Impact, Inc.
- Independent Care Health Plan
- Marquette University College of Nursing
- Medical College of Wisconsin
- Mental Health America of Wisconsin
- Meta House
- Milwaukee Center for Independence
- Milwaukee County Department of Health & Human Services
- Milwaukee Oral Health Task Force
- Milwaukee Health Care Partnership
- Milwaukee Health Services, Inc.
- Milwaukee Police Department
- Milwaukee Public Schools
- Neighborhood House of Milwaukee
- Next Door
- Outreach Community Health Centers
- Pathfinders
- Planned Parenthood of Wisconsin
- Progressive Community Health Centers
- Sixteenth Street Community Health Centers
- Tri City National Bank
- United Way of Greater Milwaukee & Waukesha County
- UW-Milwaukee Joseph J. Zilber School of Public Health
- Walnut Way Conservation Corp.
- Wheaton Franciscan Healthcare
- Wisconsin Department of Health Services
- YMCA of Metro Milwaukee
- YWCA Southeast Wisconsin

City of Milwaukee Health Department Community Assessment Team Members

- Salma Abadin
- Sarah DeRoo
- Angie Hagy
- Erica LeCounte
- Ali Reed
- Sandra Rotar
- Evelyn Sharkey
- Marisa Stanley
- Dr. Geoffrey Swain

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Appendices

In order to reduce paper, the following appendices are available electronically on the City of Milwaukee Health Department website at Milwaukee.gov/health:

Appendix A: Detailed Community Health Assessment Methods

Appendix B: Community-Identified Health Priorities

Alcohol and Drug Abuse	Mental Health
Chronic Disease	Violence

Appendix C: Milwaukee Health Department-Identified Issues

Childhood Lead Poisoning Prevention
Healthy Birth Outcomes
 Infant Mortality
 Low Birthweight
 Pre-term Birth
 Stillbirth
Sexually Transmitted Infections
Teen Pregnancy Prevention

Appendix D: Nationally-Identified Issues

Air Pollution	Housing	Sexually Transmitted Diseases
Alcohol Use	Infant Mortality	Teen Pregnancy
Chronic Disease	Mental Health	Uninsured
Education	Obesity	Unintentional Injury
Employment	Poverty	Violence

Appendix E: Data Table and Assessments

Section 1: Data Table

Section 2: Data Assessments

Milwaukee City Community Health Survey Report, 2015
Milwaukee County Community Health Report, 2015-2016
 Executive Summary
 Key Informant Interviews
 Survey Report
 Secondary Data Report
Community Commons Report for the City of Milwaukee, 2016
Community Commons Report for Milwaukee County, 2016
CDC Community Health Status Indicator (CHSI) Report for Milwaukee County, 2016
Milwaukee County Environmental Health Profile, 2015
Milwaukee County Health Profile, 2015
Milwaukee (City) Health Report, 2013
Milwaukee County Health Ranking, 2016

Executive Summary

The City of Milwaukee Health Department (MHD) is pleased to present the 2015-2016 City of Milwaukee Community Health Assessment. Community health assessment is a first step in the continuous community health improvement process, and provides a foundation for improving and promoting the health of city residents.

This report is the culmination of a yearlong effort to gather, analyze and summarize current local data on city of Milwaukee residents, their health status, and the variety of features and conditions which impact their health, healthy development and quality of life. To accomplish this task, primary and secondary data were compiled from multiple sources related to key health outcomes (morbidity, mortality), and key health determinants (health behaviors, health care and public health, social and economic factors, and physical environment factors).

The body of this report presents findings according to the multiple core variables provided by the Wisconsin Way model for community health assessments (Figure 1). In the appendices, the results of three additional perspectives on health priorities are presented: issues identified by the Milwaukee community through focus groups, surveys and key informant interviews, issues identified from national sources, and issues identified by the MHD.

A sizeable portion of the findings present data on social determinants of health such as income, employment, education, diversity and physical environment. Understanding the complex interaction among these factors and how they influence health is critical to improving community health. Research has shown that at most 20 percent of the modifiable variation in health outcomes is due to clinical care, whereas about 10 percent is due to the physical environment, 30 percent is due to health behaviors, and at least 40 percent is due to social and economic factors.

Figure 1: Wisconsin Way Core Variables

Core Variables	Health Department Profile	Injury (Unintentional)
	Local Demographics	Mental Health
	Mortality	Natural Environment
	Morbidity	Oral Health
	Access to Care	Physical Activity & Nutrition
	Alcohol & Other Drug Use	Racism
	Built Environment	Reproductive & Sexual Health
	Chronic Disease Management	Social Support
	Communicable Disease	Tobacco
	Education / Health Literacy	Violence / Community Safety
	Employment / Income	

It is important to note that our intent through this assessment is not to prioritize these issues, but rather to provide the community with a broad set of data-driven options from which to select goals for community health improvement. The next steps in the community health improvement process include prioritizing, planning, implementing and evaluating. The information contained in the City of Milwaukee CHA will be used to inform the selection of key priority issues and the development of the City of Milwaukee Community Health Improvement Plan (CHIP) as well as updates to the MHD Strategic Plan.

Introduction

Community Health Assessment (CHA)

A community health assessment (CHA) is both a process and a document, and is the foundation for improving and promoting the health of city residents. Through this CHA, the City of Milwaukee Health Department (MHD) seeks to investigate the current health status of the community, describe changes since the previous assessment, and identify opportunities to improve the health of the community. The process involves the collection and analysis of a large range of primary and secondary data, including demographics, socioeconomic and health statistics, environmental data, and primary data such as personal self-reports and public opinion collected by survey, focus groups, or other methods. This document is a summary of available evidence and will serve as a resource for the development of the City of Milwaukee Community Health Improvement Plan (CHIP).



Wisconsin state statute and Public Health Accreditation Board requirements call for local health departments to conduct a comprehensive community health assessment at least every five years. As part of the Affordable Care Act, non-profit hospitals must conduct a “community health needs assessment” at least every three years. In Milwaukee, community health assessment is guided by a public/private partnership. In the development of this CHA, the MHD was part of a regional effort led by the Milwaukee Health Care Partnership (MHCP), a consortium that includes area health systems, federally qualified health centers, academia, and public agencies dedicated to improving health care for underserved populations in Milwaukee County (a listing of members can be found at <http://mkehcp.org>). The MHCP affords members the opportunity to align resources in completing a community health survey, key informant interviews, and collection and analysis of secondary data that are required for completion of this report.

The body of this report presents findings according to the multiple core variables provided by the Wisconsin Way model for community health assessments (Figure 2). In the appendices, the results of three additional perspectives on health priorities are presented: issues identified by the Milwaukee community through focus groups, surveys and key informant interviews, issues identified from national sources, and issues identified by the MHD.

Figure 2: Wisconsin Way Core Variables

Core Variables	Health Department Profile	Injury (Unintentional)
	Local Demographics	Mental Health
	Mortality	Natural Environment
	Morbidity	Oral Health
	Access to Care	Physical Activity & Nutrition
	Alcohol & Other Drug Use	Racism
	Built Environment	Reproductive & Sexual Health
	Chronic Disease Management	Social Support
	Communicable Disease	Tobacco
	Education / Health Literacy	Violence / Community Safety
	Employment / Income	

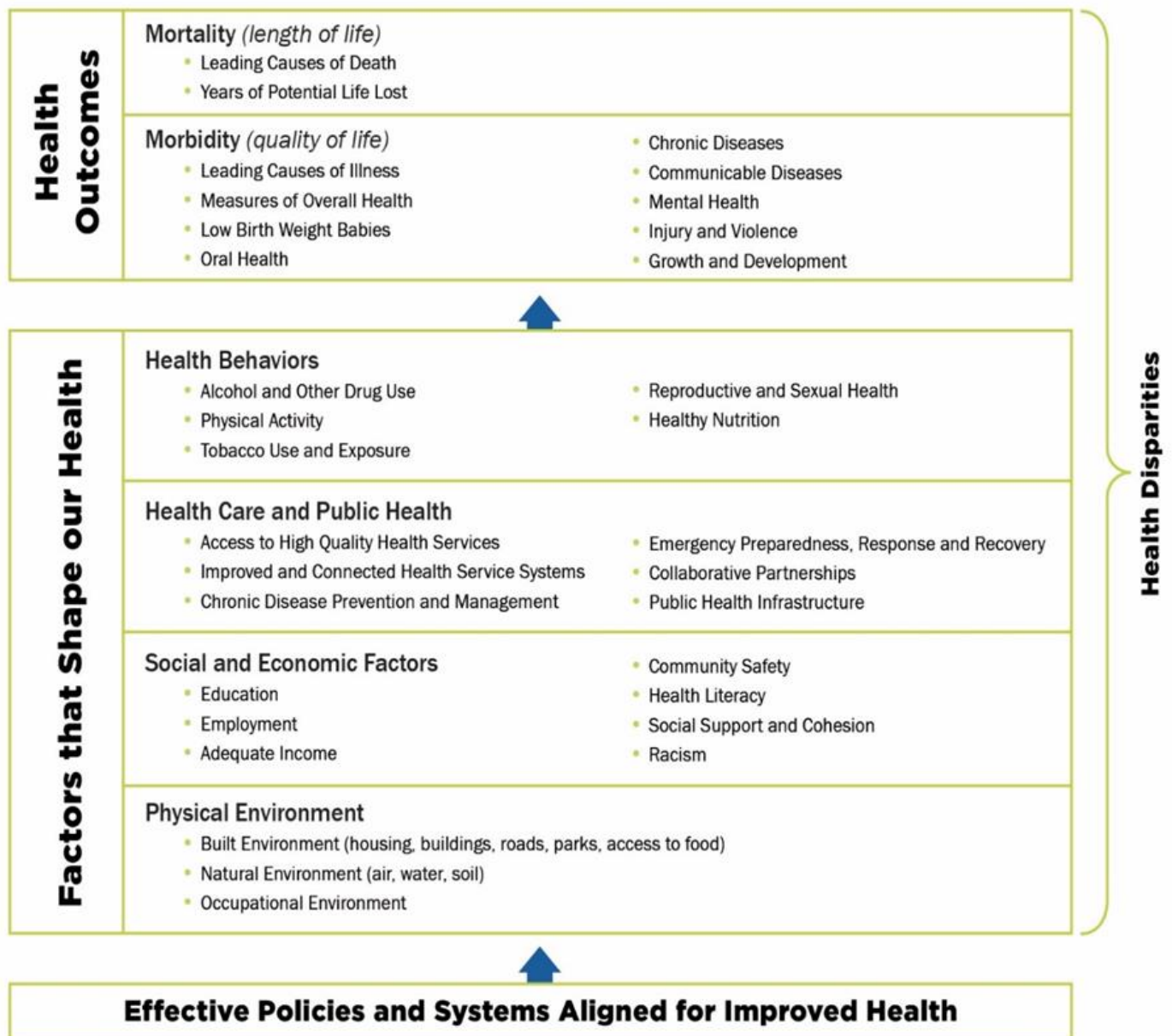
Community health assessment would not be complete without an analysis of the assets the community has available to address the issues or needs identified. The asset mapping process was begun through key informant interviews and focus groups, and through a community meeting hosted by the MHD that sought to bring together diverse agencies. This asset mapping will continue in preparation for a Community Health Improvement Plan (CHIP) that will follow this report. When the community asset map is complete it will be added as an appendix to this report.

Methodology

Every community health assessment relies on an underlying methodology (see Appendix A for detailed information about the methods used in this community health assessment). The MHD chose to use “*Improving the Health of Local Communities: The Wisconsin Way*,” a shared framework for community health needs assessment and community health improvement planning developed by the Wisconsin Association of Local Health Departments and Boards (WALHDAB).

The Wisconsin Way Framework builds upon two models from the County Health Rankings and Roadmaps. The first model is a framework describing the relationships between modifiable health factors and health outcomes / health disparities (see Figure 3). Measurement of specific health determinants and health outcomes indicators (the core variables within the Wisconsin Way Framework) depends on the collection of both primary and secondary data, which are described further below.

Figure 3: The Wisconsin Way Model Framework



The second model (see Figure 4) describes the action cycle for continual improvement which includes the following core steps:

- Work Together and Communicate: Collaborate with Stakeholders & Community Members
- Assess Needs & Resources
- Focus on What's Important
- Choose Effective Policies & Programs
- Act on What's Important
- Evaluate Actions

Primary Data

Primary data collected by the Milwaukee Health Care Partnership include an 18-minute phone-based survey of over 1,200 City of Milwaukee residents, as well as key informant interviews of 40 civic and health leaders and focus groups to identify community health needs, contributing social and economic factors, and those organizations best suited to address identified issues. More details about these data are included in Appendix E.

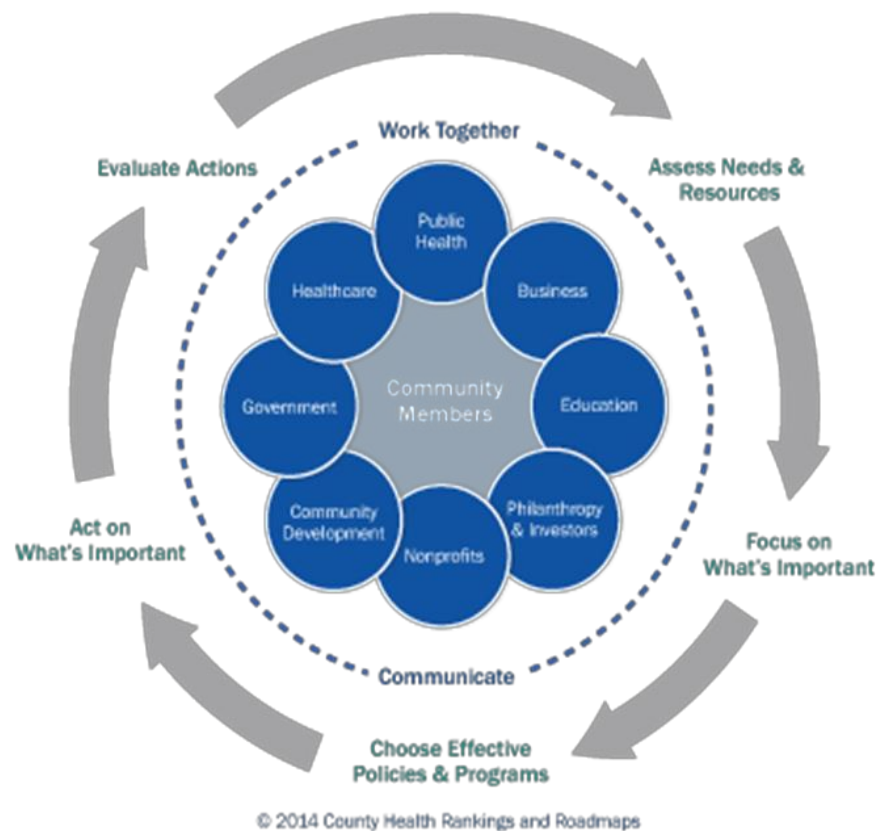
Primary data are also collected by the City of Milwaukee as part of its routine operations, including from the MHD's programs and initiatives as well as indicator data collected by other departments in the City such as violence and crime data collected by the Milwaukee Police Department and license data collected by the City Clerk's Office.

Secondary Data

Secondary data selected for inclusion in the City of Milwaukee CHA is based upon "Improving the Health of Local Communities: The Wisconsin Way" recommended core data set (see Figure 2). Secondary data included in this report include both data compiled and analyzed by the Center for Urban Population Health as part of its work for the MHCP along with data generated and compiled by MHD from the Community Commons, the CDC Community Health Status Indicators, and a variety of additional sources detailed in Appendix E.

Preference is given to presenting data for the city of Milwaukee whenever city-specific data is available. However, as several national and state secondary data sources provide data only to the county level, data for Milwaukee County is reported for those particular indicators.

Figure 4: The Wisconsin Way Action Cycle for Continual Improvement



Community Asset Mapping

Community asset mapping is a positive approach to building strong communities. The majority of primary data, secondary data, and the city-generated data identifies *needs* such as poor health outcomes or adverse health determinants (such as unemployment, poverty, crime and illiteracy), while ignoring the *assets* that exist in the community.

Working solely from a "needs" perspective can lead to external funds and services being sought to help the community (which may indeed have positive benefits to community residents), but often the result is a fragmented patchwork of services. Many of the services may not be appropriate to the culture and dynamics of that particular community, and do not contribute to building community capacity or enhancing self-sufficiency of residents. Long-term systematic change is only possible when the community and its assets are part of the solution.



The asset-based approach does not remove the need for outside resources, but makes their use more effective. Beyond developing a simple inventory, this "mapping" process is designed to promote connections or relationships between individuals, between individuals and organizations, and across organizations.

Three methods will be used to identify community assets. First, community assets were identified as part of the key informant interviews and focus groups. Second, a community planning meeting was held in June of 2015 with a group of more than 65 diverse stakeholders. Each stakeholder was given the opportunity to identify community assets (resources, programs, organizations) related to Healthy People 2020 health priorities. The final approach to asset mapping will be completed based upon community feedback to this report. The information gathered through this feedback process will be combined with other information to complete the asset maps and added as an appendix to this report.

The following section presents a summary of the City of Milwaukee Community Health Assessment findings, organized according to the key categories outlined in the Wisconsin Way model. Additional data and details about results related to community-identified issues, nationally-identified issues, and MHD-identified issues, are found in the appendices.

Assessment Findings

Overview

Assessment results selected for inclusion in the body of the City of Milwaukee CHA are based upon “Improving the Health of Local Communities: The Wisconsin Way” recommended core data set. This core data set is organized around a framework for describing what makes a community healthy. The core measures include:

- Health Department Profile
- Local Demographics
- Mortality
- Morbidity
- Access to Care
- Alcohol & Other Drug Use
- Built Environment
- Chronic Disease Management
- Communicable Disease
- Education / Health Literacy
- Employment / Income
- Injury (Unintentional)
- Mental Health
- Natural Environment
- Oral Health
- Physical Activity & Nutrition
- Racism
- Reproductive & Sexual Health
- Social Support
- Tobacco
- Violence / Community Safety

Preference is given to presenting data for the city of Milwaukee whenever city-specific data is available. However, as several national and state secondary data sources provide data only to the county level, data for Milwaukee County is reported for those indicators.

Rather than cite each specific source of data as it is used, the Assessment Findings section provides a description of the measure as well as a listing of time periods and geographic locations (city, county, state, or national) for which data is presented.

In the following pages, we present first an overview of the City of Milwaukee Health Department and then an overview of the Milwaukee community and its demographics. On the subsequent pages, which represent specific health determinants and health outcomes indicators, data have been collected from primary and secondary sources and, where possible, compared to state and national data. To help with that comparison, and where possible, each measure is given a “status” indicator and a “trend” indicator.

The Centers for Disease Control and Prevention’s (CDC) Healthy People 2020 set selected health benchmarks for all communities to achieve by the year 2020. These health benchmarks are labeled “HP2020.” Where possible, Milwaukee data has been compared with the HP2020 goals.

A green checkmark (✓) “status” is shown if the data meets or exceeds the HP2020 benchmark. Conversely, if Milwaukee falls below the HP2020 goal, a red X (✗) is shown under “status.”

If no HP2020 goal exists for a health indicator, Milwaukee was compared with national data. If national data was not available, Milwaukee data was compared to state data. If no information was available under HP2020, national, state, or community data, “na” is displayed for “not available.” For each indicator, data for the State and U.S. are listed for the year closest to the most recent city- or county-level data presented.

Trends are evaluated from the most recent 2-3 measurements (the most recent 3 are used if available).

If the most recent measurements show mainly improvement in the indicator, a green plus sign (+) is shown under “trend.” Conversely, if the most recent measurements show movement away from the desired outcome a red minus sign (−) is presented. A gray double arrow (↔) is displayed under “trend” if the recent measurements do not show consistent or notable movement in a single direction.

City of Milwaukee Health Department Profile

The City of Milwaukee Health Department (MHD) is the largest local public health agency in the State of Wisconsin and serves the residents of the city of Milwaukee.

► Mission

- The mission of the City of Milwaukee Health Department is to improve and protect the health of individuals, families, and the community.

► Vision

- The vision of the City of Milwaukee Health Department is that Milwaukee becomes the healthiest city in the nation through bold leadership, effective partnerships, and innovation in thinking and practice.

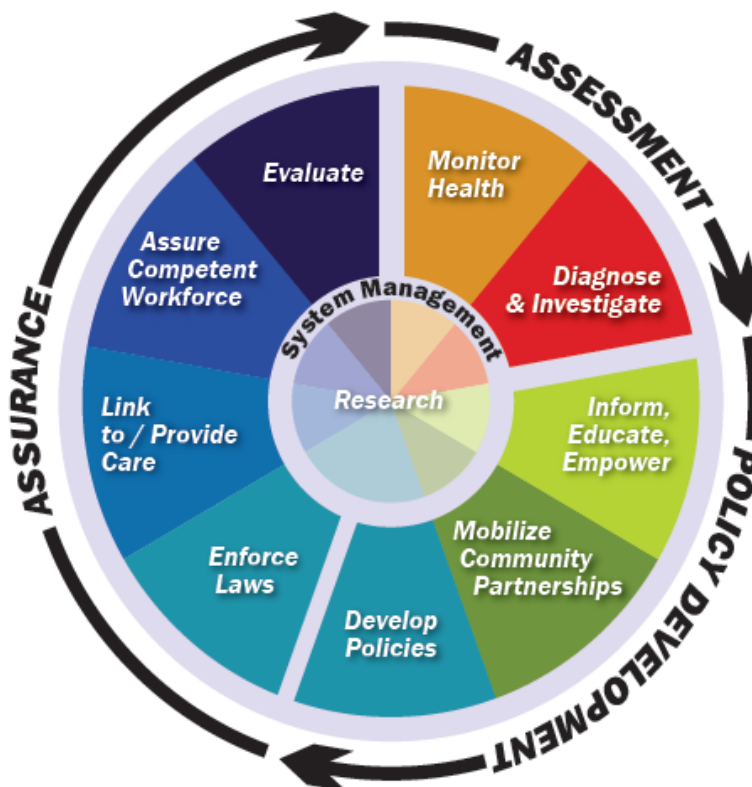
► Values

- Excellence – Our activities will be primarily evidenced-based and will be delivered with the highest quality.
- Equity – Our activities will address root causes of poor health outcomes and health disparities.
- Integrity – We will be honest, respectful, and ethical in all of our activities and interactions.
- Impact – We will measure our success by achieving significant, sustainable improvements in health outcomes for all.

While the MHD mission, vision, and values delineate its purpose, the MHD's operational standards are guided by The Public Health Accreditation Board Standards and Measures, National Public Health Performance Standards' 10 essential public health services (see Figure 5), and the requirements for local health departments defined under Wisconsin state statutes. The MHD strives to achieve a culture of continuous quality improvement in order to enhance department capacity, improve department processes, and achieve measurable improvement in health outcomes.

The MHD is led by the Commissioner of Health whose broad authority is established under Chapter 59 of the Milwaukee Code of Ordinances and by Chapter 252 and related chapters of the Wisconsin state statutes. The MHD offers a wide array of programs and services, providing 10 out of 10 of the most commonly provided services offered by local health departments nationally. Operationally, the department is organized into functional units or divisions with the following strategic aims:

Figure 5: The 10 Essential Public Health Services



1. **Business Administration:** Set and monitor MHD priorities while ensuring proper operations of administrative functions including finance, human resources, communications, and business operations.
2. **Consumer Environmental Health:** Employ regulatory, education and outreach, and surveillance and investigation activities as intervention strategies to improve the safety of the food being served and sold in Milwaukee as well as protect consumers from fraudulent business practices related to products or services sold by weight, by volume, or by time.
3. **Disease Control and Prevention:** Promote, initiate and lead innovation in public health emergency preparedness along with the prevention and control of reportable and emerging infectious diseases and environmental health threats within the city of Milwaukee and in partnership with the community.
4. **Family and Community Health:** Promote, initiate, and lead programs that seek to reduce racial and ethnic disparities and address health issues faced by individuals throughout their life cycles by supporting healthy birth outcomes and healthy child development, improving sexual and reproductive health, and encouraging healthy behaviors and health care access for all.
5. **Laboratory Services:** Provide real-time response to public health investigations to support public health disease and environmental hazard interventions and proactively detect and prevent disease outbreaks.
6. **Medical and Academic Affairs:** Support the work of the MHD through the provision of medical guidance and oversight, integration of graduate medical and public health education, and consultation on effective approaches to addressing health equity.
7. **Planning and Policy:** Monitor new and existing policies at the local, state, and federal levels, as well as work to develop new policies aimed at improving the community's health and well-being.
8. **Violence Prevention:** Work in conjunction with community partners and stakeholders to identify and implement strategies to reduce and prevent injuries, disabilities, and death across the lifespan and to assure that those affected by violence have access to justice and social service systems.

As of 2016, the MHD reported a total operating budget of \$13,619,554 and a total of 241.83 full-time employees. Comparing 2013 data, the most recent year statewide data is available, the department has 4.6 full-time equivalents per 10,000 population, as compared to 3.2 for local health departments across the state of Wisconsin.

Per capita total investments in public health programs and services for the MHD are \$41.28, of which \$21.01 are from tax levy, compared to \$26.61 and \$13.70 respectively across the state of Wisconsin. A 2013 national survey of local health departments conducted by the National Association of County and City Health Officials found that health departments serving populations of 500,000 to 1 million persons had an average per capita investment of \$78 and a median investment of \$40.

Trust for America's Health typically ranks Wisconsin's State public health spending in the bottom of all states in the nation in terms of state-level investments in public health, and America's Health Rankings identified low State-level public health funding as one of Wisconsin's challenges.

Local Health Department Staffing - 2013

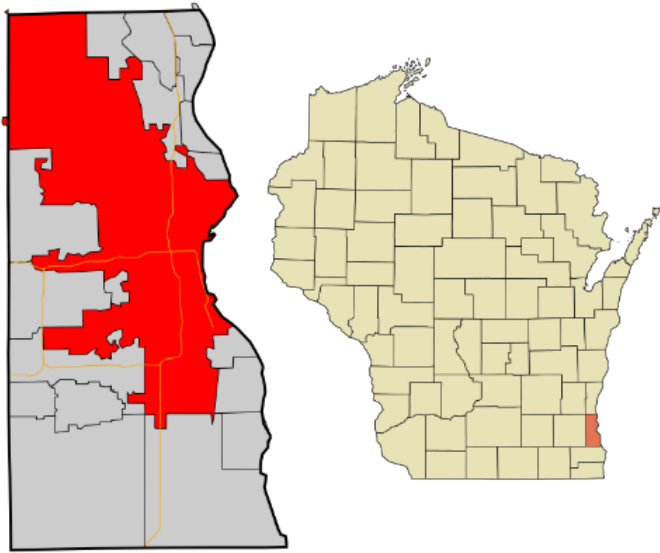
	Milwaukee		Wisconsin	
Staffing	Total	per 10,000	Number	per 10,000
All LHD Staff	273.8	4.6	1812.8	3.2
Administrative/Supervisor	53	0.9	228.2	0.4
Public Health Nurses	58	1.0	527.4	0.9
Other Professionals	67.7	1.1	524.3	0.9
Paraprofessionals	44.5	0.7	225.4	0.4
Support	50.6	0.8	307.6	0.5

Health Department Services, Milwaukee versus National Profile of Local Health Department Findings

	Service	% of Local Health Agencies Providing	MHD Offers Service
1	Communicable/Infectious Disease Surveillance	91%	Yes
2	Adult Immunization Provision	90%	Yes
3	Child Immunization Provision	90%	Yes
4	Tuberculosis Screening	83%	Yes
5	Environmental Health Surveillance	78%	Yes
6	Food Service Establishments Inspection	78%	Yes
7	Tuberculosis Treatment	76%	Yes
8	Food Safety Education	72%	Yes
9	Population-Based Nutrition Services	69%	Yes
10	Schools/Day Care Center Inspection	69%	Yes (School food inspection) No (Day Care licensing/inspection is a state function)

The Milwaukee Community – Overview

For the purpose of this report, “community” is defined as the municipal city limits of Milwaukee. Located along the shore of Lake Michigan, Milwaukee is the largest city in Wisconsin and the 31st largest city in the United States. The city of Milwaukee is largest of 19 municipalities in Milwaukee County, encompassing 96.1 square miles. According to 2014 five-year American Community Survey estimates, the current population of the city of Milwaukee is 598,078.



Milwaukee is the main cultural and economic hub of the Milwaukee–Waukesha–West Allis Metropolitan Statistical Area (MSA). The total population of the MSA is 1,572,245, making it the 33rd largest MSA in the US. The Milwaukee area’s seven-county region is home to The MSA places among the top manufacturing centers, ranking second among major metropolitan areas in the percentage of its workforce in manufacturing. The economy is dominated by small- to medium-size firms with representatives in nearly every industrial classification.

Professional and managerial positions are the fastest-growing occupations in Milwaukee accounting for almost 27 percent of the workforce. Service businesses constitute the largest sector of the local economy, and health care positions account for about 27 percent of

service sector jobs. The area is home to four major multi-hospital health systems. Other major areas of service employment include business services (27 percent), educational services (7 percent) and social services (10 percent).

Milwaukee hosts many festivals and parades throughout the year, and is home to nationally recognized museums, a zoo, professional sports teams, and entertainment venues. Altogether these attractions bring more than 5 million tourists and generate \$1.9 billion annually.

The majority of Milwaukee city residents are between the ages of 5 and 34 years. Milwaukee continues to boast a diverse population with approximately 53% of residents identifying as Black, Asian, or of another race other than white. Among Milwaukee’s population age 5 and older, 8.6% have limited English proficiency, equal to the national rate, but higher than the statewide rate of 3.2%.

Milwaukee is also city of contrasts. It houses many of Wisconsin’s wealthiest residents as well as the majority of the state’s poorest residents. Milwaukee is the nation’s fifth most impoverished city and has a poverty rate of 29%. This rate is more than double the rate for the state (13.3%). The overall percentage of children 18 years and under living in poverty is 43.3%. Poverty rates vary by race and ethnicity. Among African-Americans in the city, 39.9% are living in poverty compared to 31.8% of Hispanics and 14.8% of non-Hispanic Whites. In Milwaukee, 83% of students qualify for free or reduced lunch compared versus 42% statewide and 52% nationally.

Through school choice (which allows low-income students to attend private school with public money) and out-of-district open enrollment, Milwaukee children are provided numerous primary school educational options, yet only 61% of Milwaukee children will graduate from high school within four years compared to 89% statewide.

Although Milwaukee has Wisconsin’s most concentrated health resources, health disparities are also the most pronounced. Milwaukee has higher than state average rates of infant mortality, sexually transmitted diseases, cancer (breast, cervical, lung, and prostate), violence, teen pregnancy, childhood lead poisoning, and mortality due to unintentional injuries. The Milwaukee MSA is also the most racially segregated MSA in the nation.

Milwaukee Demographics

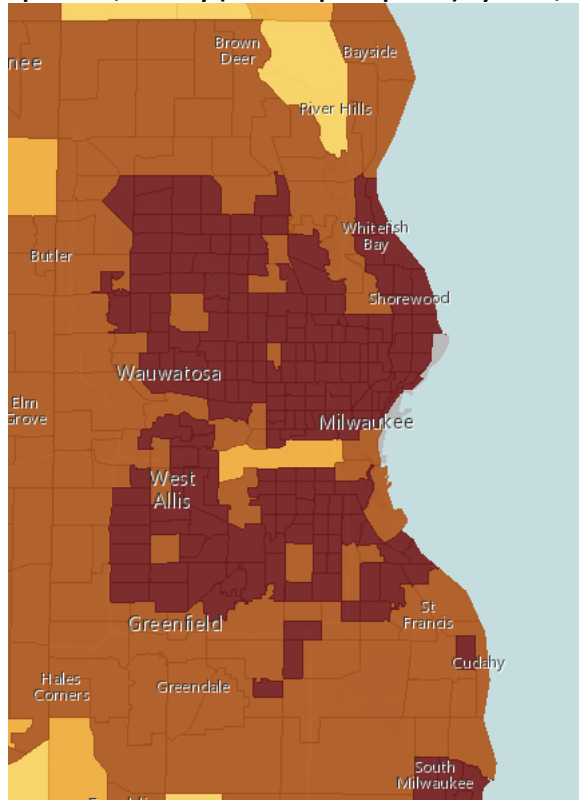
Total Population

According to the U.S. Census Bureau American Community Survey, a total of 598,078 people live in the 96.12 square-mile municipal boundaries of the city of Milwaukee. The population density for this area, estimated at 6,188.3 persons per square mile, is significantly greater than neighboring jurisdictions.

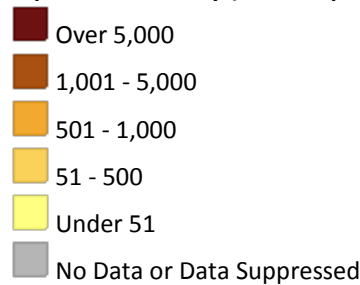
	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
City of Milwaukee	598,078	96.12	6,222.2
Wisconsin	5,724,698	54,157.80	105.70
United States	314,107,084	3,531,905.4	88.93

Data Source: US Census Bureau, American Community Survey. 2010-14

Population, Density (Persons per Sq. Mile) by Tract, ACS 2



Population, Density (Persons per Sq. Mile) by Tract, ACS 2

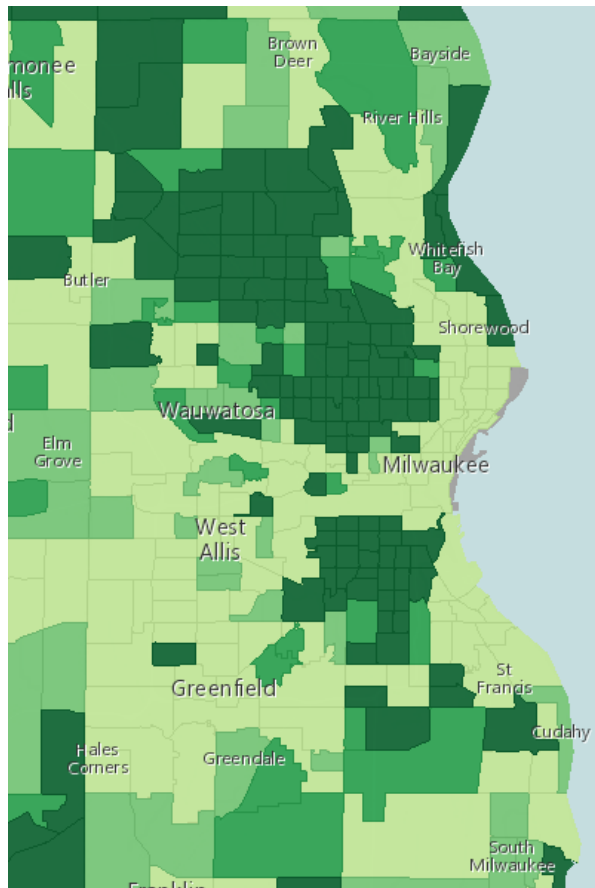


City of Milwaukee Population by Age Group

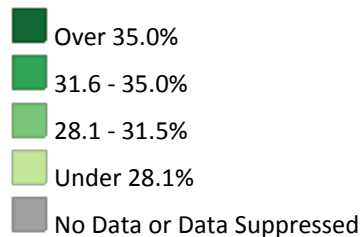
Age Group	Total Population		Males		Females	
	Number	%	Number	%	Number	%
Age 0-4	47,457	8%	23,841	8	23,616	8
Age 5-17	113,232	19%	57,125	20	56,107	18
Age 18-24	77,956	13%	38,247	13	39,709	13
Age 25-34	99,072	17%	47,466	17	51,606	17
Age 35-44	74,268	12%	35,897	13	38,371	12
Age 45-54	72,209	12%	34,687	12	37,522	12
Age 55-64	57,591	10%	27,072	10	30,519	10
Age 65 and older	54,674	9%	21,655	8	33,019	11

Families with Children

According to the most recent the American Community Survey estimates, 33.7% of all occupied households in the city of Milwaukee are family households with one or more child(ren) under the age of 18. A family household is any housing unit in which the householder is living with one or more individuals related to him or her by birth, marriage, or adoption. Non-family households are any households occupied by the householder alone, or by the householder and one or more unrelated individuals.



Households with Children (Age 0-17), Percent by Tract, ACS 2010-14



Percent Population by Race Alone, 2010-2014

Data Source: US Census Bureau, American Community Survey. 2010-2014

Report Area	White	Black	Asian	American Indian / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
City of Milwaukee	47.0%	39.3%	3.7%	0.5%	0%	5.8%	3.7%
Wisconsin	86.7%	6.2%	2.4%	0.9%	0%	1.6%	2.1%
United States	73.8%	12.6%	5.0%	0.8%	0.2%	4.7%	2.9%

Total Population by Hispanic Ethnicity, 2010-2014

Data Source: US Census Bureau, American Community Survey. 2010-2014.

Report Area	Total Population	Hispanic or Latino Population	Percent Population Hispanic or Latino	Non-Hispanic Population	Percent Population Non-Hispanic
City of Milwaukee	598,078	106,086	17.7%	491,992	82.3%
Wisconsin	5,746,692	355,292	6.2%	5,369,400	93.8%
United States	314,107,084	53,070,096	16.9%	261,036,988	73.1%

Population with Limited English Proficiency (LEP)

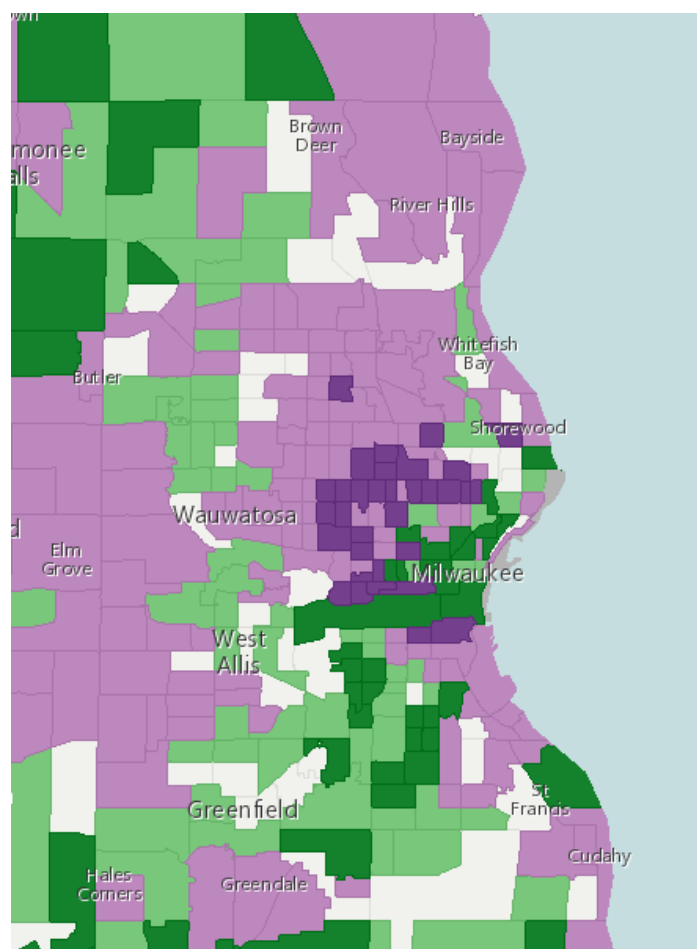
Percentage of the population aged 5 and older who speak a language other than English at home and speak English less than “very well.” The inability to speak or read English well creates barriers to health care access, provider communications, and health literacy. Data Source: US Census Bureau, American Community Survey. 2010-2014.

Report Area	Population Age 5 and older	Population Age 5 and older with Limited English Proficiency	Percent Population Age 5 and Older with Limited English Proficiency
City of Milwaukee	550,322	47,067	8.6%
Wisconsin	5,377,408	174,138	3.2%
United States	294,133,373	25,305,202	8.6%

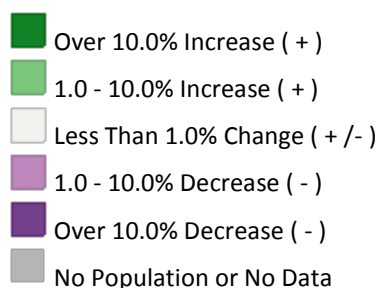
Change in Total Population

According to the U.S. Census Bureau Decennial Census, between 2000 and 2010 the population in the report area fell by 2,003 persons, a decrease of 0.36%. A significant positive or negative shift in total population over time impacts health care providers and the utilization of community resources.

Report Area	Total Population, 2000 Census	Total Population, 2010 Census	Total Population Change, 2000-2010	Percent Population Change, 2000-2010
City of Milwaukee	596,974	594,833	-2,141	-0.36%
Wisconsin	5,363,675	5,686,986	323,311	6.03%
United States	281,421,906	308,745,538	27,323,632	9.71%



Population Change, Percent by Tract, US Census 2000 - 2010



Occupation, Civilian Employees Ages 16 and Older, 2010-2014

	Milwaukee	Wisconsin	US
Management, business, science, and arts occupations	30.2%	34.3%	36.4%
Service occupations	24.2%	17.1%	18.2%
Sales and office occupations	23.0%	23.4%	24.4%
Natural resources, construction, and maintenance occupations	5.6%	8.5%	9.0%
Production, transportation, and material moving occupations	17.1%	16.8%	12.1%

Industry, Civilian Employees Ages 16 and Older, 2010-2014

	Milwaukee	Wisconsin	US
Agriculture, forestry, fishing and hunting, and mining	0.5%	2.5%	2.0%
Construction	3.1%	5.3%	6.2%
Manufacturing	14.0%	18.4%	10.4%
Wholesale trade	2.1%	2.7%	2.7%
Retail trade	10.3%	11.3%	11.6%
Transportation and warehousing, and utilities	4.4%	4.3%	4.9%
Information	2.0%	1.7%	2.1%
Finance and insurance, and real estate and rental and leasing	6.0%	6.1%	6.6%
Professional, scientific, and management, and administrative and waste management services	10.6%	8.0%	10.9%
Educational services, and health care and social assistance	27.4%	23.3%	23.2%
Arts, entertainment, and recreation, and accommodation and food services	11.1%	8.7%	9.5%
Other services, except public administration	4.6%	4.2%	5.0%
Public administration	4.0%	3.5%	4.9%

Mortality

Significance: Premature death can provide a unique and comprehensive look at overall health status. To understand mortality in a community, analyzing leading causes of death as well as years of potential life lost is essential.

Key Measures:

- **Years of potential life lost:**
Calculated by subtracting the age of death from the 75-year benchmark. For example, a person dying at age 50 would contribute 25 years of life lost.
- **Mortality rates:** calculated by the number of deaths per 100,000 people in a given population over a given period of time. Sometimes they are “age-adjusted” to help compensate for whether a given population might be older or younger than average. Higher mortality rates tend to indicate that people are not living as long and are not as healthy.
- **Infant Mortality:** Defined as the death of an infant prior to his or her first birthday, this rate is an indicator often used to measure the health and well-being of a population. High infant mortality rates are often a sign of poverty, violence, chronic stress, and a number of other issues that greatly contribute to a child not making it to his or her first birthday. In Milwaukee, Black infants die at a rate that is three times higher than the rate of White babies. Reducing racial/ethnic disparities is one of the keys to reducing the overall rate in the city.

Sources: County Health Rankings (2014); Healthy People 2020

Years of Potential Life Lost, Rate per 100,000 Population, Milwaukee County

2009-2011	2010-2012	2011-2013	WI	US	Status	Trend
7,939.7	7,818.2	7,945.4	5,952.5	6,605.3	✗	↔

Life Expectancy at Birth (Years), City of Milwaukee

2011	2012	2013	2014	WI	US	HP2020	Status	Trend
76.0	75.8	76.2	76.9	80.3	78.8	-	✗	+

Age-adjusted Mortality Rate per 100,000 Population, City of Milwaukee

2006	2009	2012	2014	WI	US	Status	Trend
975.0	850.4	904.5	823.6	719.9	732.8	✗	↔

Deaths (All Causes) by Age Group, City of Milwaukee, 2014

Age	Number	Rate per 100,000
All Ages	4445	741
0-4	92	194
5-14	16	19
15-19	29	66
20-34	608	417
35-54	773	1248
55-64	791	2380
65-74	822	4780
85+	1,137	11,539

Selected Underlying Cause of Death, City of Milwaukee, 2014

	Number	Rate (per 100,000)
Heart Disease (total)	1,016	169
Ischemic Heart Disease	594	99
Cancer (total)	1,008	168
Trachea/Bronchus/Lung	265	44
Colorectal	98	16
Female Breast*	70	23*
Cerebrovascular Disease	205	34
Lower Resp. Disease (total)	168	28
Pneumonia and Influenza	68	11
Accidents (total)	372	62
Motor Vehicle Accidents	63	11
Diabetes	111	19
Infect./Parasitic Dis.	81	14
Suicide	56	9

*Based on female deaths from breast cancer and female population.

Infant Mortality Rate per 1,000 Live Births, City of Milwaukee

2003-2005	2006-2008	2009-2011	2012-2014	WI	US	HP 2020	Status	Trend
11.6	10.9	10.1	9.9	5.7	6.0	6.0	✗	+

Morbidity

Significance: Morbidity has been defined as any departure, subjective or objective, from a state of physiological or psychological well-being. In practice, morbidity encompasses disease, injury, and disability, and helps to understand measures of overall health in a community.

Key Measures:

- Self-reported health status: Individuals reporting health as fair or poor (as opposed to good or excellent) provides an estimate of the health-related quality of life. Feeling physically unhealthy can lead to reduced ability to perform normal activities such as work, recreational activities and household tasks.
- Poor physical health days: This measure can help to understand quality of life. Self-reported poor physical health days may be the result of acute or chronic illness or injury.
- Low birth weight: Low birth weight infants are at high risk for health problems such as respiratory distress syndrome and bleeding in the brain as well as lifelong chronic conditions. This indicator can also highlight the existence of health disparities.
- Preventable hospitalizations: Understanding the burden on local health care systems and the community for preventable conditions where timely and effective outpatient care could have reduced the likelihood of hospitalization.

Sources: County Health Rankings (2014); Healthy People 2020

Percent Reporting Health as Fair or Poor, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	Status	Trend
17%	21%	22%	24%	21%	15%	17%	✗	↔

Poor Physical Health Days (Number of Days Physical Health Was Not Good)

City of Milwaukee	WI	US	HP2020	Status	Trend
4.8	3.6	3.9	na	✗	na

Low Birth Weight (percent of babies born <2500 grams), City of Milwaukee

2003	2006	2009	2012	2014	WI	US	HP 2020	Status	Trend
9.8%	10%	10.8%	9.7%	10.9%	7.3%	8.0%	7.8%	✗	↔

Total Hospitalizations Per 1000 Population Milwaukee County

2008	2009	2010	2011	2012	2013	WI	Status	Trend
144.8	137.2	133.4	134.2	136.2	133.7	106.1	✗	↔

Total Preventable Hospitalizations Per 1000 Population Milwaukee County

2008	2009	2010	2011	2012	2013	WI	Status	Trend
17.3	16.9	17.0	17.2	17.8	18.6	13.2	✗	—

Coronary Heart Disease Hospitalizations Per 1000 Population Milwaukee County

2008	2009	2010	2011	2012	2013	WI	Status	Trend
5.0	4.0	3.0	3.0	3.0	3.0	3.1	✓	↔

Cerebral Vascular Disease Hospitalizations Per 1000 Population Milwaukee County

2008	2009	2010	2011	2012	2013	WI	Status	Trend
3.1	3.0	2.9	3.1	2.9	3.0	2.5	✗	↔

Drug-Related Hospitalizations Per 1000 Population Milwaukee County

2008	2009	2010	2011	2012	2013	WI	Status	Trend
1.0	0.8	0.7	0.8	0.8	0.7	0.6	✗	↔

Alcohol-Related Hospitalizations Per 1000 Population Milwaukee County

2008	2009	2010	2011	2012	2013	WI	Status	Trend
2.2	2.0	1.9	2.0	2.2	2.1	1.7	✗	↔

Cancer-Related Hospitalizations Per 1000 Population Milwaukee County

2008	2009	2010	2011	2012	2013	WI	Status	Trend
4.1	3.9	3.7	3.6	3.4	3.2	3.1	✗	+

Emergency Department Visits age Adjusted Per 100,000 Involving Heroin for Milwaukee County

2006	2009	2014	WI	US	Status	Trend
2.9	3.7	10.5	19.1	8.7	✗	—

Access to Care

Significance: Access to health care includes medical, dental and mental health care and impacts overall physical, social and mental health status. The prevention of disease and disability as well as detection and early treatment of conditions improve quality of life, prevent death, and increase life expectancy.

Key Measures:

- Coverage: Having health insurance is essential but does not ensure full access. It is also necessary to have comprehensive coverage that includes preventive care, providers accepting the individual's insurance, close geographic location of providers to patients, clinics open at convenient times, adequate public transportation, and services from a usual and ongoing source (a medical home).
- Percent of adults with unmet care: Having a usual and ongoing source of primary care increases the likelihood that patients will receive appropriate care. Having a medical home is associated with greater trust and communication between patients and providers.

Additional Considerations: Barriers to care that may need to be addressed include:

- Transportation
- Long waits to get an appointment
- Culturally and linguistically appropriate services
- Lack of knowledge about the importance of preventive care
- Low health literacy

Sources: County Health Rankings (2014); Healthy People 2020

Percent of Adults (18+) not Currently Covered by Health Insurance, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP2020	Status	Trend
11%	13%	15%	17%	6%	12%	17%	0%	✗	↔

Percent of Adults (18+) not Currently Covered by Health Insurance Anytime in Past 12 Months, City of Milwaukee

2009	2012	2015	WI	US	HP2020	Status	Trend
26%	22%	14%	na	na	0%	✗	+

Percent of Households with One or More Members not Covered by Health Insurance Anytime in the Past 12 Months, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP2020	Status	Trend
27%	30%	30%	25%	16%	na	na	0%	✗	+

Percent of Population Uninsured all Year Over Past Year, City of Milwaukee

2005	2006	2007	2008	2009	2010	2011	2012	Trend
10%	7%	8%	8%	13%	11%	15%	10%	+

Percent of Children without Health Insurance, City of Milwaukee

2012	2013	2014	WI	US	HP2020	Status	Trend
5.7%	5.5%	4.7%	4.6%	7.1%	0%	✗	+

Percent of Population Reporting Someone in Their Household had not Taken Their Prescribed Medication due to Cost (Past 12 Months), City Of Milwaukee

2012	2015	WI	US	HP2020	Status	Trend
15%	12%	na	na	2.8%	✗	+

Percent of Adults with Unmet Care (Past 12 Months), City of Milwaukee

	2012	2015	WI	US	HP2020	Status	Trend
Medical Care	13%	14%	10.6%	13.0%	4.2%	✗	↔
Dental Care	21%	21%	na	na	5.0%	✗	↔
Mental Health Care	6%	5%	na	na	na	na	↔

Percent of Children with Unmet Care (past 12 months), City of Milwaukee

	2012	2015	WI	US	HP2020	Status	Trend
Medical Care	3%	3%	na	na	4.2%	✓	↔
Dental Care	10%	11%	na	na	5.0%	✗	↔
Specialist	2%	1%	na	na	na	na	↔

Ratio of Population to Health Care Providers in Population Milwaukee County

	2014	2015	2016	WI	Status	Trend
Primary Care	1,340:1	1,336:1	1350:1	1,220:1	✗	↔
Dentists	1,526:1	1,455:1	1400:1	1,586:1	✓	+
Mental Health	734:1	430:1	401:1	587:1	✓	+

Alcohol & Other Drug Use

Significance: Substance abuse has a major impact on individuals, families and communities. About 1 out of every 10 people (27 million in total) in the U.S. age 12 and older reported using an illicit (illegal) drug in 2014. More than double that number (61 million) reported binge drinking in the past year. The consequences of abuse and addiction are major contributors to other social, physical, mental, and public health problems, including teen pregnancy, HIV/AIDS and other sexually transmitted diseases (STDs), and various forms of violence and injury.

Key Measures:

- Binge drinking and heavy drinking: Heavy drinking is defined as having an average of more than two drinks per day for men, or an average of more than one drink per day for women. Binge drinking is defined as consuming four or more alcoholic beverages at one time for women, or five or more alcoholic beverages at one time for men.
- Alcohol-related deaths: Alcohol abuse can lead to various physical health problems such as hypertension, heart attack, and liver, brain or heart disease. It can also result in death from illness such as cirrhosis of the liver, alcohol-related motor vehicle use, or other causes.

Additional Considerations: Wisconsin's rates for various measures of alcohol use and abuse are among the highest in the nation.

Sources: SAMSHA, Centers for Disease Control and Prevention; Healthiest Wisconsin 2020; Healthy People 2020

Adults 18 Years and Older Reporting Binge Drinking in Past 30 Days, City of Milwaukee

2006	2009	2012	2015	WI	US	HP2020	Status	Trend
20%	19%	32%	35%	23%	17%	24.4%	✗	—

Proportion of the Population Reporting Heavy Drinking in Past 30 Days, City of Milwaukee

2006	2009	2012	2014	WI	US	HP2020	Status	Trend
7.9%	9.3%	8.0%	8.1%	7.2%	6.1%	na	✗	↔

Percentage of Students who Ever had at Least one Drink of Alcohol on at Least 1 day During Past 30 days, City of Milwaukee

2005	2007	2009	2011	2013	WI	US	HP 2020	Status	Trend
36%	31%	30%	31%	27%	33%	35%	16.6%	✗	↔

Percentage of Students Who Drank Alcohol For the First Time Before Age 13 Years, City of Milwaukee

2005	2007	2009	2011	2013	WI	US	HP 2020	Status	Trend
27%	27%	22%	22%	20%	15%	19%	na	✗	+

Alcohol & Drug Abuse as Underlying or Contributing Cause of Death, City of Milwaukee 2014

	Number	Rate Per 100,000
Alcohol	194	32
Tobacco Use	672	112
Other Drugs	189	32

Age-adjusted Rate of Cirrhosis Deaths per 100,000 population, Milwaukee County

2003	2006	2009	2012	WI	US	HP2020	Status	Trend
10.4	11.1	10.7	10.5	8.5	9.9	8.2	✗	+

Rate of Alcohol-related Motor Vehicle Deaths per 100,000 population, Milwaukee County

2009	2012	WI	US	HP2020	Status	Trend
2	3	4.3	4.4	na	✓	—

Alcohol Licenses Issued by City Clerk's Office, City of Milwaukee 2014

Class A	Class B/C	Total	Class A Density (per 10,000)	Overall Density (per 10,000)	WI	US	Status
305	1,037	1,342	5.1	22.4	0.7	1.0	✗

Drug Arrests (Adult and Juvenile)* per 100,000, Milwaukee County

2006	2009	2012	WI	US	HP2020	Status	Trend
692	738	741	478	495	na	✗	—

Built Environment

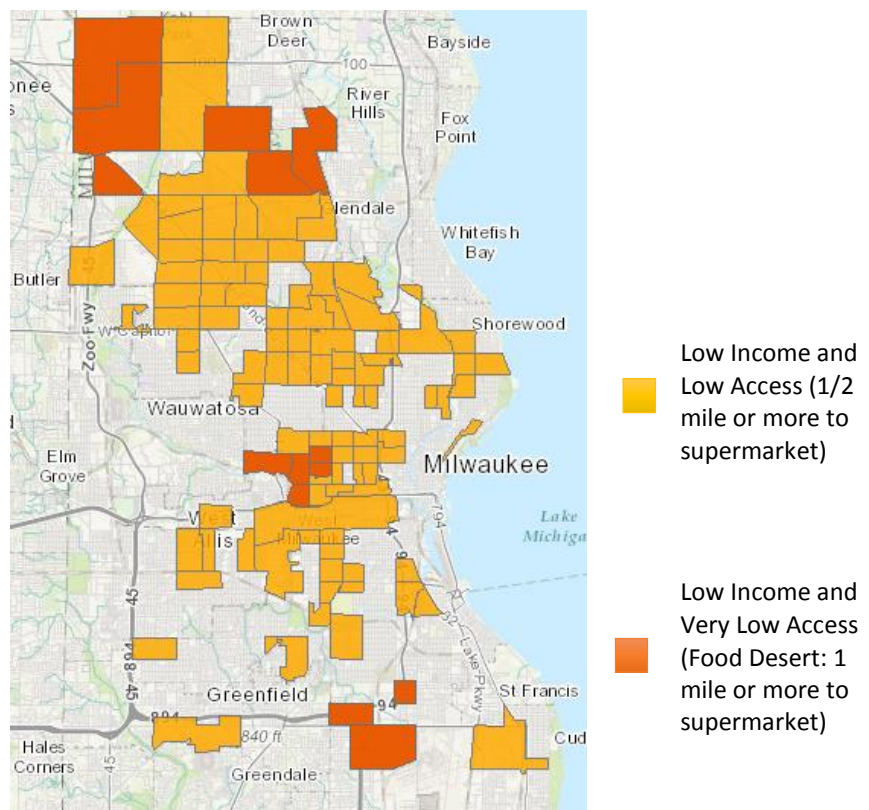
Significance: The built environment includes human-made resources and infrastructure such as buildings, roads, parks, restaurants and grocery stores. The built environment can support or constrain healthy behaviors through issues like neighborhood walkability and access to healthy foods. Physical hazards can also exist in the built environment, ranging from old housing stock with lead paint hazards or fire-prone electrical wiring, to brownfields and industrial pollution. Hazards that exist from the built environment can be reduced through engineering, regulation, safe work practices and other methods.

Key Measures:

- Access to healthy food: Lack of access to fresh fruits and vegetables is related to overweight, obesity, and premature death. A “food desert” is a neighborhood where a high proportion of residents have low access (more than 1 mile in an urban setting and 10 miles in rural areas) to a supermarket or large grocery store.
- Childhood lead poisoning: Housing built prior to the nationwide lead paint ban may pose a risk to children when paint hazards exist in disrepair. No level of lead has been determined to be safe in humans.
- Access to recreational facilities: Access to recreational facilities has a strong relationship with physical activity levels in adults and children and is linked to lower obesity levels. Increasing access to recreational facilities is a recommended strategy to reduce obesity.

Source: County Health Rankings; Healthiest Wisconsin 2020

Food Access by Census Tract, 2012



Prevalence of Elevated Blood Lead Levels (Lead Poisoning) among Children Age 6 and Under (10 ug/dL)

2003	2006	2009	2012	2014	WI	US	Status	Trend
11.3%	6.5%	4.4%	3.4%	2.7%	0.77%	0.53%	✗	+

Structure by Year Built, City of Milwaukee

Year Built	Number	Percent
Built 2010 or later	1,007	0.40%
Built 2000 to 2009	9,087	3.50%
Built 1990 to 1999	7,991	3.10%
Built 1980 to 1989	9,824	3.80%
Built 1970 to 1979	22,488	8.70%
Built 1960 to 1969	27,038	10.50%
Built 1950 to 1959	53,411	20.70%
Built 1940 to 1949	27,901	10.80%
Built 1939 or earlier	99,218	38.50%

Recreation and Fitness Facilities per 100,000 Population, Milwaukee County

2008	2009	2010	2011	2012	2013	WI	US	Status	Trend
7.91	8.02	9.18	9.5	8.23	8.76	11.34	9.73	✗	↔

Chronic Disease

Significance: Chronic diseases such as heart disease, stroke, cancer, diabetes, and asthma can be very costly, yet are preventable and can be effectively managed after they have occurred. Effective management can prevent more serious complications while prevention can be achieved through a healthy diet, physical activity, and eliminating tobacco use and substance abuse. In 2006, 84% percent of health care spending was generated by the 50% of the population who have one or more chronic diseases.

Key Measures:

- Asthma: Can be aggravated by air pollution in urban settings and certain indoor allergens.
- Diabetes: A leading cause of death nationwide, diabetes can result in additional health complications and is costly. One in every five health care dollars in the U.S. is spent caring for people with diagnosed diabetes. The effectiveness of managing diabetes can be measured with a blood test called hemoglobin A1c (HbA1c).
- Heart disease: Heart disease is one of the nation's leading causes of death and disability. Modifiable risk factors include high blood pressure, high cholesterol, cigarette smoking, diabetes, poor diet, lack of physical activity, overweight and obesity.
- Cancer: A leading cause of death and health care costs nationwide, cancer rates can be reduced through early screening and other measures. Risk factors contributing to certain cancers include use of tobacco, physical inactivity, poor nutrition, obesity, UV light exposure and more.

Sources: National Diabetes Statistics Report, 2014 (CDC); FastStats (CDC); Economic Benefits of Preventing Disease (National Prevention Strategy); Centers for Disease Control and Prevention; Healthiest Wisconsin 2020; Healthy People 2020

Asthma (Percent who Currently have Asthma), City of Milwaukee

2003	2006	2009	2012	2015	WI	US	Status	Trend
10%	12%	14%	14%	15%	10.3%	8.9%	✗	—

Diabetes*, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	Status	Trend
7%	8%	10%	10%	11%	9.0%	10.0%	✗	—

Percent of Diabetic Medicare Enrollees Ages 65 to 75 that Received HbA1c Screening in Past Year, Milwaukee County

2009	2010	2011	2012	WI	US	Status	Trend
88.4%	88.7%	88.4%	87.9%	89.6%	84.6%	✓	—

Heart Disease/Heart Condition, City of Milwaukee

2003	2006	2009	2012	2015	Trend
7%	8%	9%	9%	8%	↔

* Treated for or told you had it in the past 3 years

High Blood Pressure*, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
23%	27%	29%	29%	30%	32.3%	31.4%	26.9%	✗	—

High Cholesterol, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
17%	21%	21%	19%	18%	31.2%	33.6%	13.5%	✗	+

Cholesterol Screening (4 years ago or less), City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
73%	70%	70%	70%	69%	77%	76%	82%	✗	↔

Cervical Cancer Screening (18-65) – Pap Smear Within Past 3 years, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
90%	90%	88%	85%	81%	85%	81%	93%	✗	—


Mammography Screening (50 and older; within past 2 years), City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
82%	76%	76%	77%	82%	82%	77%	81.1%	✓	↔


Percentage of Female Medicare Enrollees Ages 67 to 69 that Received a Mammogram, Milwaukee County

2010	2011	2012	2013	WI	US	HP2020	Status	Trend
68.5%	66.8%	67.3%	67%	71%	71%	81.1%	✗	↔



Blood Stool Test to Screen for Colon Cancer in in Adults, 50 and Older within the Past Year, City of Milwaukee

2003	2006	2009	2012	2015	Trend
36%	23%	--	15%	15%	



Sigmoidoscopy within Past 5 Years in Adults 50 And Older, City of Milwaukee

2009	2012	2015	Trend
10%	12%	13%	
















Colonoscopy within Past 10 years in Adults 50 And Older City of Milwaukee

2009	2012	2015	WI	US	Status	Trend
54%	59%	67%	65%	53%		

Meeting the Current Colorectal Cancer Screening Recommendations in Adults 50 And Older, City of Milwaukee

2009	2012	2015	HP2020	Status	Trend
57%	65%	73%	71%		

Age-Adjusted Cancer Rates per 100,000 Population 2008-2012, Milwaukee County

	County	WI	US	HP 2020	Status
Cancer	503.4	447.7	na	na	
Female Breast - Incidence	132.1	125.4	122.0	na	
Cervical - Incidence	8.7	6.3	na	na	
Male Colorectal - Incidence	53.5	42.4	46.1	na	
Female Colorectal - Incidence	39.3	31.6	34.9	na	
Male Lung/Bronchus - Incidence	88.1	66.7	73.0	na	
Female Lung/Bronchus - Incidence	61.7	53.4	52.0	na	
Prostate Cancer - Incidence	144.6	103.2	128.3	na	
Female Breast Cancer - Mortality Rate	24.1	21.4	21.5	20.7	
Cervical Cancer - Mortality	2.7	1.7	na	2.2	
Male Colorectal Cancer Mortality	21.5	18.6	18.1	14.5	
Female Colorectal Cancer Mortality	13.0	11.9	12.8	14.5	
Male Lung/Bronchus Cancer Mortality	67.3	56.1	57.9	45.5	
Female Lung/Bronchus Cancer Mortality	43.8	40.8	37.0	45.5	
Prostate Cancer Mortality Rate	25.3	23.5	20.8	21.8	

Communicable Disease

Significance: Communicable diseases such as foodborne and waterborne illness, vaccine-preventable diseases, sexually transmitted infections, and more (including some respiratory and gastrointestinal illnesses) result in illness, increased health care costs and absenteeism and death. Prompt identification of illness and disease can prevent the spread of disease to others and reduce loss of time at work or school due to illness.

Key Measures:

- Vaccine-preventable diseases and vaccination rates: Each year in the U.S., 42,000 adults and 300 children die of vaccine preventable illnesses. Improving immunization rates protects the health of individuals and the broader community. Each birth cohort fully vaccinated with the routine schedule of childhood vaccinations can prevent 14 million cases of disease.
- Foodborne illness: A cause of millions of illnesses every year in the U.S., foodborne illness (such as salmonella and campylobacter) can result in health care and economic costs due to absenteeism.

Sources: Healthiest Wisconsin 2020; Healthy People 2020; Centers for Disease Control and Prevention

Percent of Adults 65 Years and Older that Received Annual Influenza ("Flu") Shot, City of Milwaukee

2012-2013	2014-2015	WI	US	HP2020	Status	Trend
33.2%	33.6%	56.7%	65%	70%	✗	↔

Percent of Children Less than 18 Years of Age that Received Annual Influenza ("Flu") Shot, City of Milwaukee

2012-2013	2014-2015	WI	US	HP2020	Status	Trend
21.7%	31.1%	56.8%	58.9%	70%	✗	+

Percent of Children Ages 24 Months who Completed Primary Recommended Vaccination Series (4:3:1:3:3:1:4 series), City of Milwaukee

2012	2014	WI	US	HP2020	Status	Trend
58.0%	63.6%	73.1%	70.4%	80%	✗	+

Percent of Adolescents 13 to 18 Years Immunized with 1 or More Doses of the Tdap Vaccine* City of Milwaukee

2012	2014	WI	US	HP2020	Status	Trend
67.0%	71.6%	78.8%	86%	80%	✗	+

*Vaccine protects against tetanus, diphtheria, and pertussis

Pertussis, Confirmed and Probable Per 100,000 Population, City of Milwaukee

2012	2014	WI	US	Status	Trend
57.9	16.34	25.1	10.4	✗	+

Percent of Adolescents 13 to 18 Years that Received 3 or more Doses of the Human Papillomavirus (HPV) Vaccine, City of Milwaukee

2012	2014	WI	US	HP2020	Status	Trend
15.4%	23.6%	23.0%	na	80%	✗	+

Hepatitis C, Chronic Per 100,000 Population, City of Milwaukee

2012	2014	WI	US	Status	Trend
59.51	75.04	55.3	na	✗	—

Shigellosis Per 100,000 Population, City of Milwaukee

2009	2012	2014	WI	US	Status	Trend
22.86	1.01	30.76	5.64	5.81	✗	↔

Salmonella Per 100,000 Population, City of Milwaukee

2009	2012	2014	WI	US	HP2020	Status	Trend
11.60	14.63	12.78	8.66	15.45	11.4	✗	↔

Campylobacter Per 100,000 Population, City of Milwaukee

2009	2012	2014	WI	US	HP2020	Status	Trend
7.9	9.25	10.76	24.3	13.45	8.5	✗	—

Significance: More years of formal education are correlated strongly with better health. This is likely in large part because more education leads to better employment and economic opportunities including higher income, better working conditions, better access to health care (through work), more stability during variations in the job market, better housing, greater sense of personal control, and more opportunities for healthier lifestyles.

Key Measures:


- Education level: Even after controlling for income and insurance status, education still has significant positive effects on health outcomes. In addition, children born to parents with lower educational attainment are at higher risk for decreased cognitive development, increased tobacco and drug use, and a higher risk of some chronic mental and physical diseases.
- Reading level: Reading is a critical predictor of high school success or failure. Poor readers are more likely to drop out of school, and less education negatively impacts health.

Additional Considerations:

Educational attainment, reading and comprehension, and fluency in English all affect health literacy. Health literacy is defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. Only 12% of U.S. adults have proficient health literacy (2003). Adults with low literacy are more likely to take more prescriptions, have chronic conditions, use more health services, and have poor health outcomes.

Sources: County Health Rankings (2014); United Way Worldwide (2014); Healthiest Wisconsin 2020; Annie E. Casey Foundation (2014)

Milwaukee Public Schools High School Completion Rate Within 4 Years

2010-2011	2011-2012	2012-2013	2013-2014	WI	Status	Trend
61.1%	62.8%	61.8%	60.9%	88.6%	✗	

Highest Education Level Obtained, Persons Ages 25 or Older, City of Milwaukee

	2010-2014	WI	US
Less than High School	18.2%	9.2%	13.6%
High School	30.2%	32.4%	28.0%
Some College	22.1%	21.1%	21.2%
Associate's Degree	6.7%	9.9%	7.9%
College	14.9%	18.1%	18.3%
Graduate Degree	7.9%	9.3%	11.0%

Milwaukee Public Schools Fourth Graders Either Advanced or Proficient

	2013-2014	WI	US	HP 2020	Status
Reading	15.7%	36.3%	33%	36.3%	✗
Math	25.4%	52.0%	39.1%	43%	✗
Language Arts	51.2%	76.1%	na	na	✗
Science	49.2%	76.1%	na	na	✗
Social Sciences	77.0%	91.8%	na	na	✗

Milwaukee Public Schools Eighth Graders Either Advanced or Proficient

	2013-2014	WI	US	HP 2020	Status
Reading	15.2%	33.9%	32.4%	35.6%	✗
Math	17.3%	46.3%	33.9%	37.3%	✗
Language Arts	35.3%	63.3%	na	na	✗
Science	48.3%	80.3%	na	na	✗
Social Sciences	45.5%	76.5%	na	na	✗

Percentage of Students Habitually Truant, Milwaukee Public Schools

2013-2014	WI	Status
53.7%	9.9%	✗

Population 3 Years and Over Enrollment by Grade, City of Milwaukee

Grade	Number	Percent
Nursery school, preschool	5,283	2.80%
Kindergarten	16,266	8.70%
Elementary school (grades 1-8)	69,400	37.10%
High school (grades 9-12)	35,957	19.20%
College or graduate school	60,014	32.10%

Percent of Population with a Disability, City of Milwaukee

Population	2014	WI	US
All Ages	13.9%	11.4%	12.3%
Children	6.6%	4.3%	4.1%
Students within MPS	20.6%	na	na

Employment / Income

Significance: Adequate income is important in obtaining health insurance, paying for medical care, and having access to other basic goods. Poverty, whether through unemployment, underemployment or low-wage earning employment, leads to an increased risk of a variety of adverse medical and mental health conditions. Poverty can affect people's access to health care, support or constrain people's ability to practice healthy behaviors, and directly affect people's physiology through chronic elevations of stress hormones, epigenetic changes, and other biologic mechanisms across the life course that can have lasting impacts across generations.

Key Measures:

- Unemployment: Individuals who are unemployed are more than 50% more likely to be in fair or poor health than those who are employed.
- Income: Families with low incomes often struggle to afford food, rent, child care, and transportation. Additionally, some evidence suggests that poverty at a very early age may result in developmental damage. Children's IQ at age 5 has been shown to be more strongly related to income than to factors such as the mother's educational level.
- Housing: Severe housing problems include lack of complete plumbing or kitchen facilities, overcrowding, and excessive housing costs relative to income.

Additional Considerations: Compared to higher wage earners, underemployed individuals are less likely to have insurance and preventive care, more likely to work in hazardous conditions, less able to afford quality child care, and often have less access to paid leave.

Working non-standard hours and having little control over working conditions are associated with increased illness, injury and mortality.

Sources: Wisconsin Medical Journal (Swain et al, 2014), County Health Rankings (2014); United Way Worldwide (2014)

Annual Unemployment Rate, City of Milwaukee

2006	2009	2012	2015	WI	US	Status	Trend
10.3%	12.9%	13.1%	-	5.3%	7.2%	✗	—

Percentage of Households Receiving Supplemental Nutrition Assistance Program (SNAP), City of Milwaukee

2006	2009	2012	2015	WI	US	Status	Trend
15.1%	17.1%	31.5%	-	13.1%	13.2%	✗	—

Count of Individuals enrolled in W-2 (Wisconsin Works) on the Last Working Day of the Month, Milwaukee County

2003	2006	2009	2012	2015	WI	Status	Trend
11,717	7,874	8,440	10,999	8,462	14,439	✗	↔

Income, City of Milwaukee

	2014	WI	US	Status
Per Capita	\$19,636	\$27,907	\$28,555	✗
Median Household	\$35,489	\$52,735	\$53,482	✗
Mean Household	\$48,775	\$68,319	\$74,596	✗

Income in Past 12 Months at or Below the Federal Poverty Line (FPL), City of Milwaukee

	2014	WI	US	Status
All People	29.4%	13.3%	15.6%	✗
Families	25.3%	8.9%	11.5%	✗
Children	43.3%	18.5%	21.9%	✗
Adults, 18 years and over	24.2%	12.6%	13.6%	✗
Adults, 65 years and over	13.6%	7.7%	9.4%	✗

Percent Students Eligible for Free or Reduced Price Lunch, City of Milwaukee

2014	WI	US	Status
82.7%	41.2%	52.3%	✗

Percentage of Households with at least 1 of 4 Severe Housing Problems, City of Milwaukee

2006-2010	2007-2011	2008-2012	WI	Status	Trend
26.0%	26.5%	27.3%	15%	✗	—

Injury (Unintentional)

Significance: Injury is a leading cause of disability and death, as well as a large contributor to health care costs and other significant economic costs such as lost productivity.

Key Measures:

- Unintentional injury mortality: This is the rate of death due to unintentional injuries, as measured by the number of such deaths in a given timeframe and geographic area per 100,000 people. The figures are often age-adjusted, since some populations have greater or smaller proportions of individuals at age groups more prone to injury (such as children, teenagers, and the elderly).
- Falls: Falls have surpassed motor vehicle crashes as the most common cause of injury-related death in Wisconsin. The majority of fall-related deaths (87%) and in-patient hospitalizations (70%) involve people age 65 and older. More than 70% of the costs for fall-related hospitalizations and emergency department visits in the state are paid by Medicare and Medicaid.

Unintentional Injury Mortality, Age-Adjusted Death Rate per 100,000 Population, Milwaukee County, 2014

2007-2009	2008-2010	2009-2011	2010-2012	2011-2013	WI	US	HP 2020	Status	Trend
52.4	50.8	49.7	50.8	53.7	44.8	39.2	36.4	✗	■

Top 15 Injuries Resulting in Hospitalizations Age-Adjusted per 100,000 Population, Milwaukee County, 2014

Cause of Injury Hospitalization	Rate of Injury Hospitalizations
1. Falls	498
2. Poisoning	170
3. Unspecified cause of injury	114
4. Other specified classifiable cause of injury	67
5. Other specified cause of injury, not elsewhere classifiable	45
6. Cutting or piercing objects	45
7. Struck by or against object or person	44
8. Motor vehicle traffic crash- Occupant	36
9. Natural or environmental factors	28
10. Firearms	24
11. Fire, heat, chemical burns	14
12. Overexertion	13
13. Suffocation	11
14. Motor vehicle traffic crash-Pedestrian	11
15. Motor vehicle traffic crash-Motorcyclist	8

Injury Deaths Due to Falls for Age 65 and Older per 100,000 Population, Milwaukee County

2003	2006	2009	2012	WI	US	HP 2020	Status	Trend
120.9	149.4	147.8	162.8	120.9	56.7	47.0	✗	■

Profile for Milwaukee County Motor Vehicle Crashes, 2013

Type of Motor Vehicle Crash	Persons Injured	Persons Killed
All Crashes	9,269	47
Alcohol-Related	354	17
With Citation for OWI	435	0
With Citation for Speeding	775	0
Motorcyclist	273	12
Bicyclist	226	1
Pedestrian	523	8

Percentage of High School Students Who Never or Rarely Wore a Seat Belt When Riding in a Car Driven by Someone Else, City of Milwaukee

2005	2007	2009	2011	2013	WI	US	Status	Trend
24.1%	25.1%	28.7%	24%	23.6%	8.3%	7.6%	✗	+

Sources: The Burden of Falls in Wisconsin (2010); Healthy People 2020; County Health Rankings (2014); Centers for Disease Control and Prevention

Mental Health

Significance: Mental illness is the most common cause of disability in the U.S. Mental health can be defined as a state of successful mental function, resulting in productive activities, fulfilling relationships, and an ability to adapt and cope with challenges. Good mental health is essential to personal well-being, relationship building, and the ability to contribute to society. Mental health issues are associated with increased rates of risk factors such as smoking, physical inactivity, obesity and substance abuse.

Key Measures:

- Mentally unhealthy days and mental health conditions: Depression is the most common type of mental illness, affecting more than 26% of the U.S. adult population. According to the CDC, mental health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.” Frequent mental distress is a measure of mental health.
- Suicide: A surprisingly widespread and preventable public health problem, there are an estimated 8-25 attempts for every suicide death. Suicide is the second-most common cause of death for Americans between 15 and 34, and the 10th-most common cause of death overall. Most suicides are caused by self-inflicted gunshots; in the U.S. there are more gun-related suicides than gun-related homicides.

Sources: County Health Rankings (2014); Healthiest Wisconsin 2020; Healthy People 2020; Suicide Voices of Awareness (2014); Centers for Disease Control and Prevention

Average Number of Mentally Unhealthy Days Reported in Past 30 Days (Age-Adjusted), Milwaukee County

2012	2013	2014	2015	2016	WI	US	Status	Trend
4.2	4.2	4.2	5.1	4.0	3.4	2.8	✗	↔

Mental Health Condition (Treated for or Told you had it in the Past 3 Years), City of Milwaukee

2009	2012	2015	Trend
14%	16%	19%	—

Felt Sad, Blue or Depressed Always or Nearly Always in the past 30 days, City of Milwaukee

2003	2006	2009	2012	2015	Trend
9%	10%	9%	9%	8%	+

Suicide Rate per 100,000, City of Milwaukee

2011	2012	2013	2014	WI	US	HP 2020	Status	Trend
7.2	9.4	9.0	9.3	12.8	13.0	10.2	✓	↔

Considered Suicide in the Past Year, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	Status	Trend
4%	7%	7%	6%	8%	na	3.7%	✗	↔

Self-inflicted Hospitalization Rate per 100,000 Population, Milwaukee County

2003	2006	2009	2012	2014	WI	US	Status	Trend
78.1	80	67.6	85.4	103.8	100.3	na	✗	—

Percent of High School Students Who Seriously Considered Attempting Suicide in the Past Year, City of Milwaukee

2003	2005	2007	2009	2011	2013	WI	US	Status	Trend
17%	12%	14%	12%	13%	16%	13%	17%	✓	—

Psychiatric Hospitalizations Per 1000 Population Milwaukee County

2008	2009	2010	2011	2012	2013	WI	Status	Trend
10.1	10.1	10.3	9.8	9.7	9.6	6.4	✗	+

Natural Environment

Significance: The natural environment includes a variety of factors but, in particular air and water quality. Poor air and water quality have the greatest impact on the very young, the old, and those with chronic health conditions.

Key Measures:

- Air pollution: Air pollution, particularly in urban settings, can aggravate health conditions such as chronic bronchitis, asthma and other lung diseases.
- Water quality: Contaminants in water, such as prescription drugs, pesticides, and chemicals can lead to illness, infection and increased risk for illness or disease.

Annual Days Above Standard, Ground Level Ozone, Milwaukee County

2007	2008	2009	2010	2011	WI	Status	Trend
9	0	2	6	2	0.67	✗	↔

Annual Percent of Days Above Standard, Particulate Matter, Milwaukee County

2007	2008	2009	2010	2011	WI	Status	Trend
2.2	1.4	1.1	1.4	0.3	.03	✗	↔

Annual Ambient Concentration of Particulate Matter, Milwaukee County (ug/m3)

2007	2008	2009	2010	2011	WI	Standard	Status	Trend
14.8	13.3	11.9	11.3	11	9.39	12	✓	+

Detection of Select Contaminants Milwaukee Drinking Water, 2014

Substance	Ideal Goals (MCLG)	Median Value	Highest Level Detected
Coliform bacteria, Total	Zero	Zero	0.14% in one month
Haloacetic Acids	NA	3.3 µg/L	8.1 µg/L
Lead	Zero	8.2 µg/L (AL)	NR
Nitrate, as N	10.0 mg/L	0.30 mg/L	0.30 mg/L
pH	NA	7.63	7.89
Total Dissolved Solids	500	179 mg/L	205 mg/L
Trihalomethanes	NA	8.7 µg/L	12.2 µg/L
Turbidity	NA	0.04 NTU 95% of the time	0.28 NTU 1-day max

All contaminant levels are within applicable state and federal laws.

Cryptosporidium was detected in one source water sample out of 22 source water samples during 2014. There were no detections of *Cryptosporidium* in the finished water in 2014.

Percentage of Days Milwaukee Beaches are Open with No Advisory or Closing from Memorial Day to Labor Day

Beach	2012	2015	Trend
Bradford	79%	88%	na
McKinley	84%	44%	na
South Shore	50%	30%	na

Rate of Heat Stress Emergency Department Visits per 100,000 Population, Milwaukee County

2011	WI	Status
12.0	16.5	✓

Source: County Health Rankings (2014)

Oral Health

Significance: Good oral health not only improves the ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions, but it can prevent mouth pain, tooth decay and loss, oral and throat cancer, birth defects, other diseases of the mouth, and other systemic illnesses such as heart disease.

Good oral health care can also prevent other diseases through early detection of diseases that start with oral symptoms but that can affect health in other parts of the body.


Key Measures:

- Water fluoridation: Over the past 50 years there has been a significant improvement in oral health in the U.S. This is mostly due to effective prevention and treatment efforts, especially community water fluoridation, which strongly, safely, and effectively reduces risk of tooth decay.
- Poor dental health: Individuals more likely to have poor oral health include those with disabilities, other health conditions, lower levels of education and income, and people from underserved racial/ethnic groups.

Additional Considerations: Barriers to adequate oral health care include a lack of dental insurance (public or private) and low reimbursement for dental services.


Sources: Healthiest Wisconsin 2020; Healthy People 2020

Fluoride Levels in Milwaukee Water, 2014



Range	CDC Recommended	Status
0.53 to 0.6 mg/L	0.7 mg/L	

Note: Milwaukee Water Works has adjusted the amount of fluoride it adds to the finished water in response to a recent change in the CDC recommendation. The CDC recommendation used to be at least 0.7 mg/L, and now the recommendation is exactly 0.7 mg/L and, as a result, Milwaukee waterworks has reduced the fluoride levels in its water.



Percent Adults with Poor Dental Health, Milwaukee County

2006-2010	WI	US	Status	Trend
15.8%	15.2%	15.7%		na


Percent of Adults with a Dental Checkup within the Past Year, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
66%	58%	52%	51%	57%	73.8%	67%	na		


Percent of Medicaid Members Receiving Dental Service, Milwaukee County

2005	2006	2007	2008	2010	WI	Status	Trend
24%	20.9%	23.2%	23%	33.3%	35.9%		

Adults Age 65+ Who Have Had All Their Natural Teeth Extracted, Milwaukee County

2011-2012	WI	US	Status	Trend
12.65%	13.66%	16.54%		na

No Tooth Loss Among Adults 18 to 64 Years of Age, Milwaukee County

2011-2012	WI	US	Status	Trend
60.98%	69.71%	64.28%		na

Physical Activity & Nutrition

Significance: Regular physical activity and a healthy diet reduce the risk of chronic diseases, illness and injury.

Key Measures:

- Overweight: At a healthy weight, people are less likely to develop chronic diseases and die at an earlier age.
- Physical activity: In adults, proper physical activity can lower the risk of early death, coronary heart disease, stroke, high blood pressure, type 2 diabetes, breast and colon cancer, falls and depression. In children and adolescents, physical activity is key for improving bone health, cardio-respiratory and muscular fitness, body fat levels, and symptoms of depression.
- Healthy diet: A healthy diet reduces the risk of a number of chronic diseases, some cancers, oral disease, malnutrition, anemia, and other risk factors, diseases and illnesses. In children, good nutrition is important to healthy growth and development and maintaining an appropriate weight.

Additional Considerations: Physical activity can be greatly associated with access to recreational facilities, parks and play areas, and neighborhood safety.

Additionally, healthy diet must be evaluated in context alongside the built environment, including food deserts, and food security. When families have easy access to sufficient and nutritious foods, they are more likely to be food-secure. Ten percent of Wisconsin households are food insecure.

Sources: Healthiest Wisconsin 2020; Healthy People 2020

Percent of Overweight Adults, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
62%	65%	67%	66%	74%	67%	64%	66.1%	✗	→

Percent of High School Students Who are Overweight, City of Milwaukee

2003	2005	2007	2009	2011	2013	WI	US	Status	Trend
19%	18%	19%	17%	18%	15%	13%	17%	✗	↔

Percent of Adults Reporting Recommended Moderate or Vigorous Activity, City of Milwaukee

2006	2009	2012	2015	WI	US	HP2020	Status	Trend
43%	40%	46%	48%	53%	51%	47.9%	✓	+

Percent of Adults Reporting No Leisure Time Physical Activity, City of Milwaukee

2003	2006	2009	2012	WI	US	HP 2020	Status	Trend
23.9%	23.3%	27.5%	23%	34.7%	29.6%	32.6%	✗	↔

Percent of Students Who Were Not Physically Active at Least 60 Minutes Per Day On 5 Or More Days, City of Milwaukee

2009	2011	2013	2015	WI	US	HP2020	Status	Trend
70.6%	69.4%	69.8%	-	50.5%	52.7%	na	✗	↔

Percent of Adults Reporting Two or More Servings of Fruit Daily, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	Status	Trend
63%	58%	56%	61%	59%	34.9%	32.5%	✓	↔

Percent of Adults Reporting Three or More Servings of Vegetables Daily, City of Milwaukee

2003	2006	2009	2012	2015	WI	US	Status	Trend
29%	22%	20%	25%	26%	23.2%	26.3%	✗	+

Percent of Infants in WIC Breastfed Exclusively Through 3 Months, Milwaukee County

2009	2012	2015	WI	US	HP2020	Status	Trend
12.7%	14.4%	-	21.6%	na	46.2%	✗	na

Percent of City of Milwaukee Children 5 to 17 Years of Age Eating:

	2012	2015	Trend
Two or More Servings of Fruit	75%	82%	+
Three or More Servings of Vegetables	31%	30%	↔

Racism

Significance: The relationship between experiencing racism and negative health outcomes is an emerging area of research. While still evolving, research clearly indicates a strong relationship between self-reported experiences of racism and ill health, particularly negative mental health outcomes and health-related behaviors.

Research also indicates that stress from experiencing chronic hostility and fear can lead to negative health outcomes. These outcomes are seen even after controlling for differences such as income and access to adequate health care.

The effect can be direct (typically through the effects of chronic elevations of stress hormones) including:

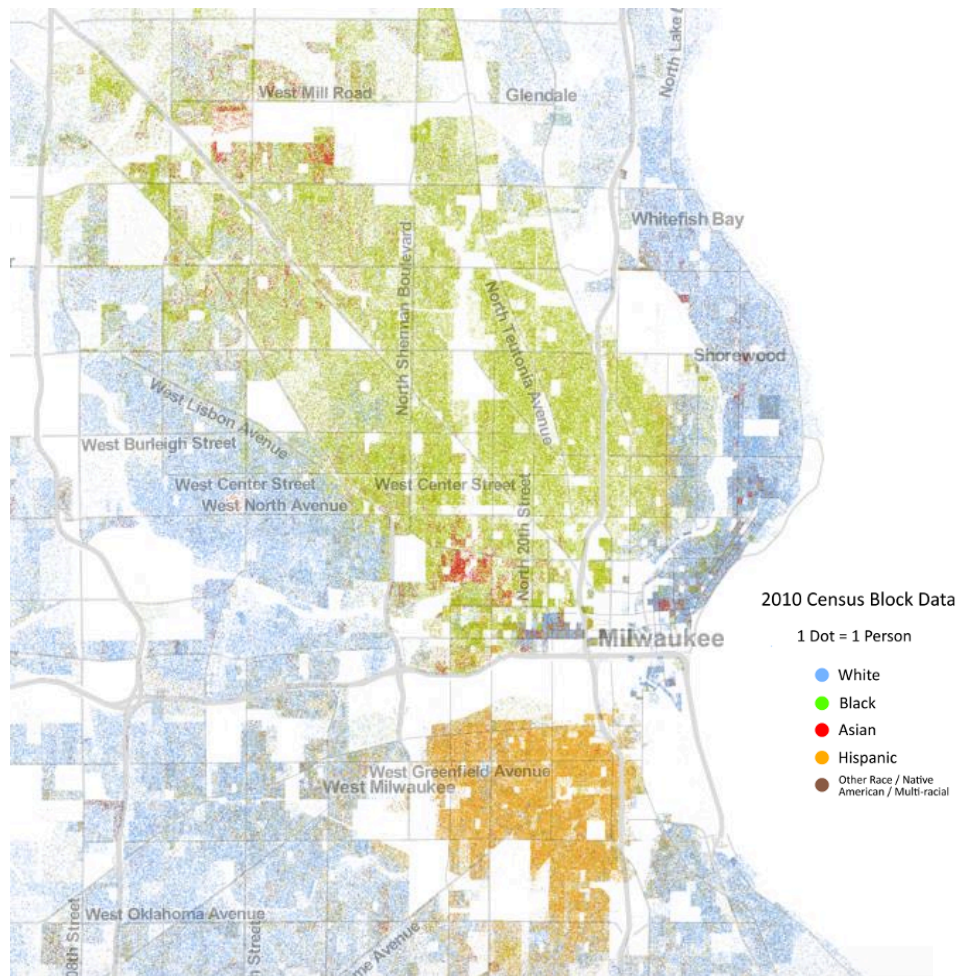
- Higher blood pressure
- Lower immune function
- Higher risk of obesity and diabetes

Or indirect:

- Higher rates of smoking, drinking, and over-eating
- Lower rates of exercise and social support

Sources: Paradies, Y. "A Systematic Review of Empirical Research on Self-Reported Racism and Health," *International Journal of Epidemiology* (August 2006), 35(4): 888-901. "The Toxic Power of Racism," Dean Ornish, *Boston Globe*, 3/24/08.

Race/Ethnicity by Census Block, 2010 City of Milwaukee / Milwaukee County



Milwaukee-Waukesha-West Allis, WI Segregation Indices (0-100), U.S. Census 2010 (University of Michigan Population Studies Center, 2015)

	1990	2000	2010	Rank*
Black-White	82.8	83.3	81.5	1
Hispanic-White	56.4	59.5	57.0	9
Asian-White	42.2	43.4	40.7	52

*(out of 102 Largest Metros)

Hate Crimes (All Types) per 100,000 Population (USA.COM, 2015)

Location	2006	2007	2008	2009	2010	2011	2012	2013
Milwaukee	7.6	4.5	5	2.6	5.8	4	2.3	1.5
WI	1.5	1.2	1.6	1	1.6	1.3	1.2	0.9
U.S.	3	2.9	2.9	2.4	2.3	2.2	2.3	2

Reproductive & Sexual Health

Significance: Per the CDC, reproductive health “begins before conception with proper nutrition and a healthy lifestyle and continues with appropriate prenatal care and the prevention and treatment of complications when possible. The ideal result is a full-term pregnancy without unnecessary interventions ... a healthy infant, and a healthy postpartum period....” Factors affecting sexual health include violence or coercion, early sexual debut, and lack of safe sex practices to prevent sexually transmitted diseases.

Key Measures:

- Teen birth rates: The number of births per 1,000 teenage females in a given location and time frame.
- Prenatal care: Ideally, women would begin their prenatal care before conception, or at least during their first trimester.
- Sexually transmitted infections: Sexually transmitted infections can lead to reproductive health problems, fetal and perinatal health problems, cancer and increase the risk of HIV infection.
- HIV diagnoses: Not only a significant health concern, but a costly health burden. For every HIV infection prevented, an estimated \$355,000 is saved in the cost of providing lifetime HIV treatment.

Additional Considerations: Access to family planning services is essential to consider when analyzing birth outcomes, sexually transmitted infection rates, and overall reproductive health. Family planning services help with desired birth spacing and family size and contribute to improved health outcomes for infants, children, women and families.

Sources: County Health Rankings (2014); Economic Benefits of Preventing Disease (National Prevention Strategy); Healthiest Wisconsin 2020; Healthy People 2020

Birth Rate per 1,000 Females age 15-17, City of Milwaukee

2006	2009	2012	2014	WI	US	HP2020	Status	Trend
52.0	41.3	25.9	23.7	7.7	10.9	na	✗	+

Birth Rate per 1,000 Females age 18-19, City of Milwaukee

2006	2009	2012	2014	WI	US	HP2020	Status	Trend
120.8	88.7	71.7	64.5	34.0	43.8	na	✗	+

Percent of High School Students who Have Ever had Sexual Intercourse, City of Milwaukee

2003	2005	2007	2009	2011	2013	WI	US	Status	Trend
60%	59%	59%	63%	60%	52%	35%	47%	✗	+

Percentage of High School Students who did not use a Condom During Last Sexual Intercourse (Among Students Who Were Currently Sexually Active), City of Milwaukee

2003	2005	2007	2009	2011	2013	WI	US	Status	Trend
30%	32%	39%	34%	35%	39%	38%	41%	✓	—

Percent of Women Receiving Late or No Prenatal Care, City of Milwaukee

2003	2006	2009	2012	2014	WI	US	Status	Trend
4.7%	4.8%	4.2%	5.1%	6.7%	4.3%	6%	✗	—

Percent of Births < 37 Weeks Gestation, City of Milwaukee

2006	2009	2012	2014	WI	US	HP 2020	Status	Trend
10.9%	10.7%	10.5%	10.9%	9.1%	9.6%	11.4%	✓	↔

Chlamydia Cases per 100,000 Population, City of Milwaukee

2006	2009	2012	2014	WI	US	Status	Trend
1,618.6	1,550.2	1,543.6	1,405.1	406	456.1	✗	+

Gonorrhea Cases per 100,000 Population, City of Milwaukee

2006	2009	2012	2014	WI	US	HP2020	Status	Trend
816.4	565.0	502.7	391.2	72	110.7	na	✗	+

Primary and Secondary Syphilis Cases per 100,000 Population, City of Milwaukee

2006	2009	2012	2014	WI	US	HP 2020	Status	Trend
5.7	3.9	5.5	7.6	1.4	6.3	na	✗	—

New HIV Diagnoses per 100,000 Population, City of Milwaukee

2006	2009	2012	2014	WI	US	HP 2020	Status	Trend
18.7	22.2	17.1	20.0	3.9	13.8	na	✗	↔

Significance: Family and social support includes the quality of relationships among family members, friends and acquaintances as well as involvement in community life. There is a strong association between social isolation and poor health outcomes. Social isolation is related to poor health outcomes and stress.

Key Measures:

- Social and emotional support: Those self-reporting a lack of adequate social and emotional support.
- Single-parent households: Both adults and children in single-parent households are at higher risk for illness, mental health problems and mortality, and engagement in unhealthy behaviors. Self-reported health among single parents (both male and female) were found to be worse than for parents living as couples, even after controlling for socioeconomic characteristics.

Sources:

County Health Rankings (2014).
 Benzeval, M. The Self-Reported Health Status of Lone Parents. *Social Science Medicine* 1998 May; 46(10):1337-53.
 House, JS. Social Isolation Kills, but How and Why? *Psychosomatic Medicine* 2001; 63:273-274.

Percentage of Adults Without Adequate Social / Emotional Support, Milwaukee County

2005-2011	2006-2012	WI	US	HP2020	Status	Trend
21.2%	20.9%	16.1%	20.7%	na	✗	↔

Single-parent Households, City of Milwaukee 2010-2014

2010-2014	WI	US	HP2020	Status	Trend
17.7%	8.8%	9.6%	na	✗	na

Older Living Alone (Defined as householder living alone age 65 years and over), City of Milwaukee 2010-2014

2010-2014	WI	US	HP2020	Status	Trend
8.5%	10.4%	9.8%	na	✓	na

Tobacco

Significance: Tobacco use is the single most preventable cause of death and disease in the U.S. For every death from tobacco use, 20 more people suffer with at least one serious tobacco-related illness. Tobacco use accounts for 11% of Medicaid costs and nearly 10% of Medicare costs. Annual health care costs are \$2,000 higher from smokers than nonsmokers. Most smokers want to quit, but doing so is difficult without adequate medical and psychological support.

Key Measures:

- Current tobacco use: Every year in Wisconsin there are more than 6,600 deaths due to tobacco use (2008-2012 data), \$3 billion in direct health care costs, and \$1.6 billion in lost productivity. Tobacco use can cause cancer, heart disease, lung diseases, premature birth, low birthweight,
- Secondhand smoke exposure: Exposure to secondhand smoke can cause heart disease, lung cancer, severe asthma attacks, respiratory infections, ear infections and sudden infant death syndrome.
- Smoking and pregnancy: Smoking during pregnancy can cause premature birth, low infant birth weight, stillbirth and infant death.
- Use of other tobacco products: Smokeless tobacco products can cause cancer of the mouth and gums, periodontitis, and tooth loss. Electronic cigarettes, while not containing tobacco, do contain highly addictive nicotine, as well as cancer-causing chemicals.

Sources: Economic Benefits of Preventing Disease (National Prevention Strategy); Healthiest Wisconsin 2020; Healthy People 2020; Center for Urban Initiatives and Research, University of Wisconsin-Milwaukee (Burden of Tobacco in Wisconsin, 2015); Centers for Disease Control and Prevention

Current Tobacco Cigarette Smoker (Adults), City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
28%	29%	29%	28%	21%	19%	19%	12%	✗	+

Tried to Quit (Quit Smoking 1 Day or More in Past Year), City of Milwaukee

2003	2006	2009	2012	2015	WI	US	HP 2020	Status	Trend
53%	55%	58%	66%	61%	49%	56%	80%	✗	↔

Advised by Health Care Professional in Past Year to Quit, City of Milwaukee

2006	2009	2012	2015	Trend
78%	72%	83%	80%	↔

Smoking Prohibited in Home, City of Milwaukee

2009	2012	2015	WI	US	HP2020	Status	Trend
59%	71%	72%	75%	79%	87%	✗	+

Nonsmokers Exposed to Secondhand Smoke in Past 7 Days, City of Milwaukee

2009	2012	2015	WI	US	HP2020	Status	Trend
32%	25%	26%	52.7%	47.7%	33.8%	✓	↔

Youth Tobacco Use: Smoked Cigarettes on at Least 1 day During Past 30 days, City of Milwaukee

2007	2009	2011	2013	WI	US	HP 2020	Status	Trend
12.3%	10.5%	10.4%	8.6%	11.8%	15.7%	16%	✓	+

Tobacco Sales to Minors, Milwaukee County

2009	2012	2015	WI	US	Status	Trend
10%	15.9%	-	13.6%	9.6%	✗	na

Tobacco Licenses Issued by City Clerk's Office, 2014

Number	Density per 10,000
1,024	17.12

Smoking and Pregnancy, City of Milwaukee

2003	2006	2009	2012	WI	US	HP2020	Status	Trend
12%	12%	13%	14%	13%	9%	30%	✓	✗

Use of Other Tobacco Products, City of Milwaukee

	2015	WI	US	HP2020	Status
Electronic Cigarettes	6%	na	2.6%	na	✗
Cigars/Cigarillos	5%	na	na	0.2%	✗
Smokeless Tobacco	4%	3.5%	4.2%	0.3%	✗

Violence / Community Safety

Significance: Violence and community safety affect both physical safety and psychological well-being. Direct and indirect health impacts of intentional or unintentional injuries include poor mental health, poor, physical health, premature death, high medical costs and decreased productivity.

Additionally, exposure to crime and violence increases stress and anxiety, which are linked to many chronic health issues, as well as higher rates of preterm births and low birthweight babies.

Adverse childhood experiences (ACEs) are also associated with increased lifetime risk of chronic medical and mental health problems. ACEs include:

- Emotional Abuse or Neglect
- Physical Abuse or Neglect
- Sexual Abuse
- Mother Treated Violently
- Household Substance Abuse
- Household Mental Illness
- Parental Separation or Divorce
- Incarcerated Household Member

Key Measures:

- Community violence: Lack of safety or a perceived lack of safety causes stress and anxiety, and can deter people from healthy behaviors such as exercising or outdoor play.
- Youth and children experiencing violence: Post-traumatic stress can affect children who experience unsafe circumstances which can result in more aggressive behaviors, increased alcohol and tobacco use, and increase sexual or other risk-taking.

Source: County Health Rankings (2014); Healthy People 2020; CDC

Number of Assault Offenses per 100,000 Residents, City of Milwaukee

2011	2012	2013	2014	2015	WI	US	HP 2020	Status	Trend
1320	1620	1610	1550	1400	290	1650	1920	✓	+

Number of Homicides per 100,000 Residents, City of Milwaukee

2011	2012	2013	2014	2015	WI	US	HP 2020	Status	Trend
14	15	17	14	24	2.9	5.1	5.5	✗	↔

Number of Robberies per 100,000 Residents, City of Milwaukee

2010	2011	2012	2013	2014	2015	WI	US	Status	Trend
501	525	530	562	605	512	88	250	✗	↔

Number of Sexual Offenses per 100,000 Residents, City of Milwaukee

2010	2011	2012	2013	2014	2015	WI	US	Status	Trend
121	128	124	115	117	97	29	110	✓	↔

Maltreatment Substantiation Rate, Milwaukee County

2010	2011	2012	2013	2014	WI	HP 2020	Status	Trend
9%	10%	9%	10%	8%	12.4%	8.5%	✓	↔

Percent of High School Students Who Have Been Bullied on School Property During the Past 12 Months, City of Milwaukee

2009	2011	2013	WI	US	HP2020	Status	Trend
12.6%	12.2%	14.0%	22.7%	19.6%	17.9%	✗	—

Percent of High School Students Who Experienced Physical Dating Violence in the Past Year, City of Milwaukee

2013	WI	US	HP2020	Status	Trend
16.8%	8.5%	10.3%	na	✗	na

Percent of Children 8 to 17 Afraid for their Personal Safety in the Past Year, City of Milwaukee

2003	2006	2009	2012	2015	Trend
7%	13%	10%	8%	8%	+

Next Steps

The Institute of Medicine defines public health as *what we do as a society to assure the conditions in which people can be healthy*. Data collection is just the beginning of the work in addressing health needs in a community. The next step is to develop a community health improvement plan.

A community health improvement planning process uses community health assessment (CHA) data to select priority issues upon which to focus, develop and implement strategies for action, outline the responsibilities of a variety of stakeholders in addressing these issues, and establish accountability to ensure measurable health improvement.

Three perspectives of priority issues have already been identified (see Figure 6): issues identified by the Milwaukee community through a stakeholder meeting, focus groups, phone survey and key informant interviews; issues identified by the MHD; and issues identified from national sources.

Figure 6: Priority Issue Perspectives

Community-Identified Issues (See Appendix B)	MHD-Identified Issues (See Appendix C)	Nationally Identified Issues (See Appendix D)
<ul style="list-style-type: none">• Alcohol and Drug Use• Chronic Disease• Mental Health• Violence	<ul style="list-style-type: none">• Childhood Lead Poisoning Prevention• Healthy Birth Outcomes:<ul style="list-style-type: none">• Infant Mortality• Low Birthweight• Pre-term Birth• Stillbirth• Sexually Transmitted Diseases• Teen Pregnancy Prevention	<ul style="list-style-type: none">• Air Pollution• Alcohol Use• Chronic Disease• Education• Employment• Housing• Infant Mortality• Mental Health• Obesity• Poverty• Sexually Transmitted Diseases• Teen Pregnancy• Uninsured• Unintentional Injury• Violence

The City of Milwaukee Community Health Assessment will be shared publicly for community comment and feedback. These comments and feedback, along with an asset map, will be added to the report and then used to move into a Community Health Improvement Planning (CHIP) Process that will identify the following:

- Three to five priority areas for action, and
- Those agencies and partners best suited for addressing these issues

Because public health is a shared social responsibility, the City of Milwaukee Health Department (MHD) cannot be primarily responsible for addressing and solving every health priority identified. However, the MHD does have its own specific responsibilities, represented in this process as the department's own strategic plan. The completion of the Milwaukee CHA and CHIP will therefore also be used to guide updates and revisions to the MHD strategic plan.