

# NORTH SHORE COMMUNITY HEALTH ASSESSMENT

2022-2026



**NORTH SHORE**  
HEALTH DEPARTMENT

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# INTRODUCTION



The North Shore Health Department (NSHD) started the North Shore Community Health Assessment (CHA) in early 2022. This process involved collecting data on health outcomes and the factors that influence health in the seven municipalities we serve. Given that the CHA was started two years after the onset of the COVID-19 pandemic, we recognized this as a unique opportunity to evaluate the health of our communities and redefine our role according to the Public Health 3.0 model.

**Public Health 3.0** calls for a new approach to public health in the 21st century and declares that “public health is what we do together as a society to ensure the conditions in which everyone can be healthy” (DeSalvo et al., 2017). This involves collaborating across sectors and with community partners to address the social and environmental determinants of health that influence the health of our community. It is a goal of Public Health 3.0 for public health leaders to serve as **Chief Health Strategists** for their communities to ensure that **equity** and the **social determinants of health** act as guiding principles in community initiatives and policies.

A key function of the Chief Health Strategist is providing **actionable data** that can be used to guide population health efforts and assess the impact of these efforts on the health of the community. This is why regularly completing a Community Health Assessment (CHA) is critical to achieve Public Health 3.0.

As a department, we are proud to present the 2022-2026 North Shore Community Health Assessment, which will serve as a foundation for the development of strategies and programs to improve health outcomes in the North Shore.

## DID YOU KNOW?

*Wisconsin State Statute (Ch. 251.05) and Public Health Accreditation Board requirements call for local health departments to conduct a comprehensive community health assessment at least every five years. Additionally, since 1993, Wisconsin State Statutes have required health departments to lead the development of Community Health Improvement Plans, which address the priority community health issues based on CHA findings.*

# OUR APPROACH TO THE COMMUNITY HEALTH ASSESSMENT

There are three components that make up the North Shore CHA. The first two are primary data, which are data collected directly by our department.

## 1 Community Survey

The Community Survey was conducted by our department from June to September 2022 with the goal of identifying the most critical health concerns and needs in the North Shore.



When you see this graphic in the CHA, primary data from our community survey is being shared.

## 2 Key Informant Interviews

We interviewed a total of 57 key informants from July to September 2022. Interviewees were asked to compare the health status of the North Shore before COVID-19 to present, what they perceive to be the most critical health issues in the North Shore, and to provide insight on how to improve the health of the community.



When you see this graphic in the CHA, primary data from our key informant interviews is being shared.

## 3 Secondary Data

Data taken from pre-existing online sources are included in this report to gain an understanding of the current health status of the North Shore and describe the factors that are influencing health. Any data in this report that is not from our community survey or key informant interviews is secondary data. The list of secondary data sources we utilized is included at the end of this report.

## Public Health 3.0

**"Public health is what we do together as a society to ensure the conditions in which everyone can be healthy."**

# WHAT INFLUENCES HEALTH?

## The County Health Rankings Model

The factors that influence health outcomes are broken down into four categories in the *County Health Rankings Model*. Each category is given a percentage based on how much the factors within that category impact health.

About **40%** of an individual's health can be attributed to **Social and Economic Factors**, **10%** to **Physical Environment**, **30%** to **Health Behaviors**, and **20%** to **Clinical Care**.



**Social and Economic Factors**  
40%

Education  
Employment  
Income  
Family & Social Support  
Community Safety

**Physical Environment**  
10%

Air & Water Quality  
Housing & Transit

**Health Behaviors**  
30%

Tobacco Use  
Diet & Exercise  
Alcohol & Drug Use  
Sexual Activity

**Clinical Care**  
20%

Access to Care  
Quality of Care

*County Health Rankings & Roadmaps (CHR&R), a program of the University of Wisconsin Population Health Institute*

## Social Determinants of Health Healthy People 2030

"Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."

## Structural Determinants of Health

Further upstream from the SDOH are the structural determinants of health. Structural determinants include the governing process, economic and social policies that affect the social determinants, including income, working conditions, housing, and education. These factors affect whether resources for good health are shared **equitably** or not among different groups, based on things like race, gender, or social class.



*Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved February 1, 2023.*

*Solar O, Irwin A. A conceptual framework for action on the social determinants of health. Geneva, Switzerland: WHO; 2010. [September 22, 2016].*

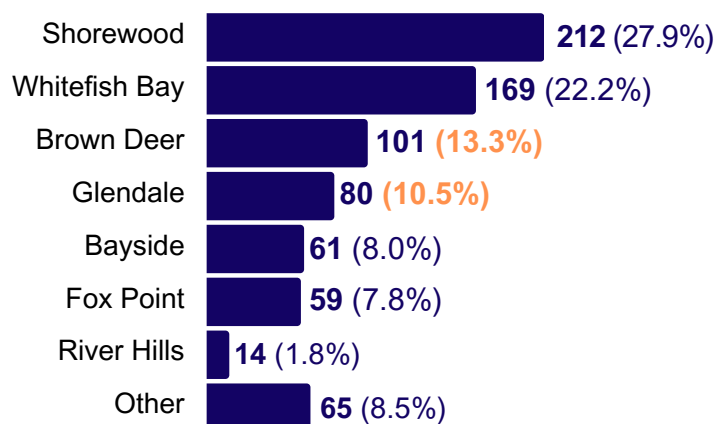
**Equity means that everyone has a fair and just opportunity to access what they need to thrive.**



# COMMUNITY SURVEY RESULTS

Our community survey was open from June 2022 to September 2022. In the survey, we asked community members to identify their top three health concerns and top three health needs in the North Shore. We also collected demographic information, inquired about the impacts of COVID-19, and asked questions about access to health services for children.

## A disproportionately small number of survey respondents were from Brown Deer or Glendale (23.8% compared to 38.2% of the population)



Community	% of North Shore Population
Shorewood	20.5%
Whitefish Bay	22.1%
Brown Deer	18.5%
Glendale	19.7%
Bayside	6.6%
Fox Point	10.2%
River Hills	2.4%

## A disproportionately large number of survey respondents were 70 years and above (24.0% compared to 13.1% of the population)

Age	Bayside	Brown Deer	Fox Point	Glendale	River Hills	Shorewood	Whitefish Bay	Other	Grand Total	%
18 to 29	<5	<5	0	<5	0	15	<5	8	35	4.5%
30 to 39	8	7	13	13	<5	25	37	13	118	15.3%
40 to 49	10	9	14	14	<5	22	45	17	133	17.3%
50 to 59	8	16	6	13	<5	39	36	11	132	17.1%
60 to 69	16	38	12	15	<5	38	27	16	163	21.1%
70+	17	27	14	23	5	71	18	10	185	24.0%
Prefer not to answer	0	<5	0	0	0	<5	<5	<5	5	0.6%

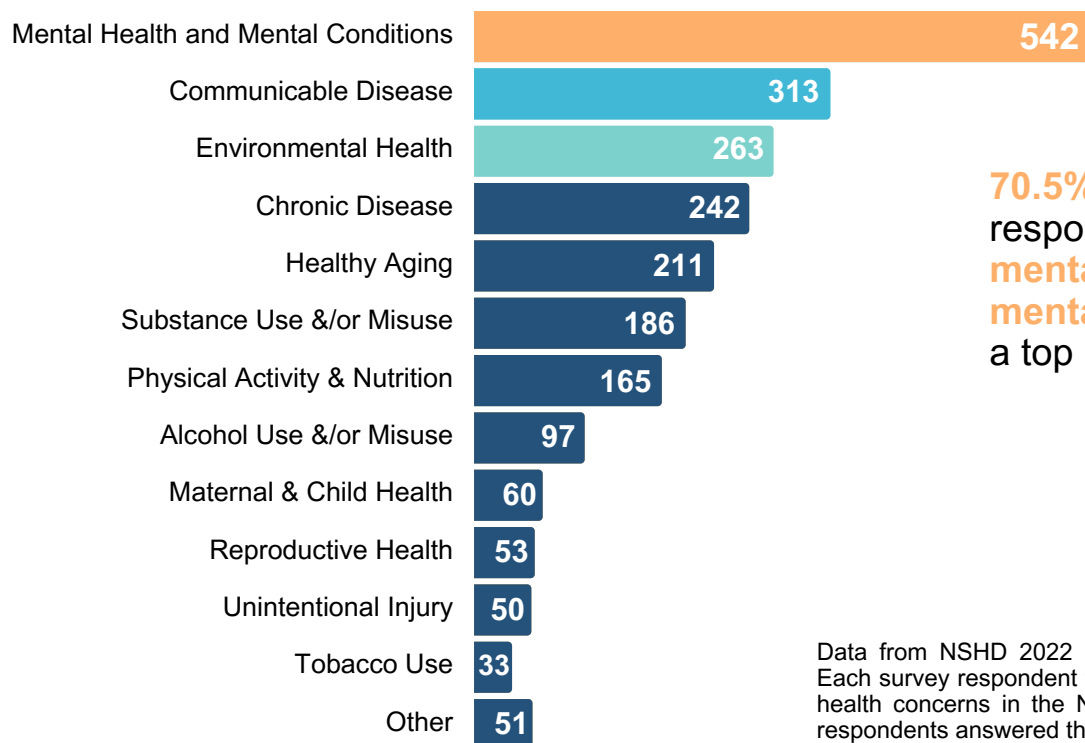
## A disproportionately large number of survey respondents were White (85.7% compared to 73.2% of our population)

Race	n	%	% of North Shore Population
American Indian or Alaskan Native	<5	<1%	0.2%
Asian or Asian American	15	1.9%	5.5%
Black or African American	42	5.4%	12.8%
Native Hawaiian or other Pacific Islander	8	1.0%	0.1%
Some other race	6	0.8%	1.4%
Two or more races	11	1.4%	6.8%
White or Caucasian	661	85.7%	73.2%
Prefer not to answer	25	3.2%	--

For more demographic data from the survey, see Appendix A.



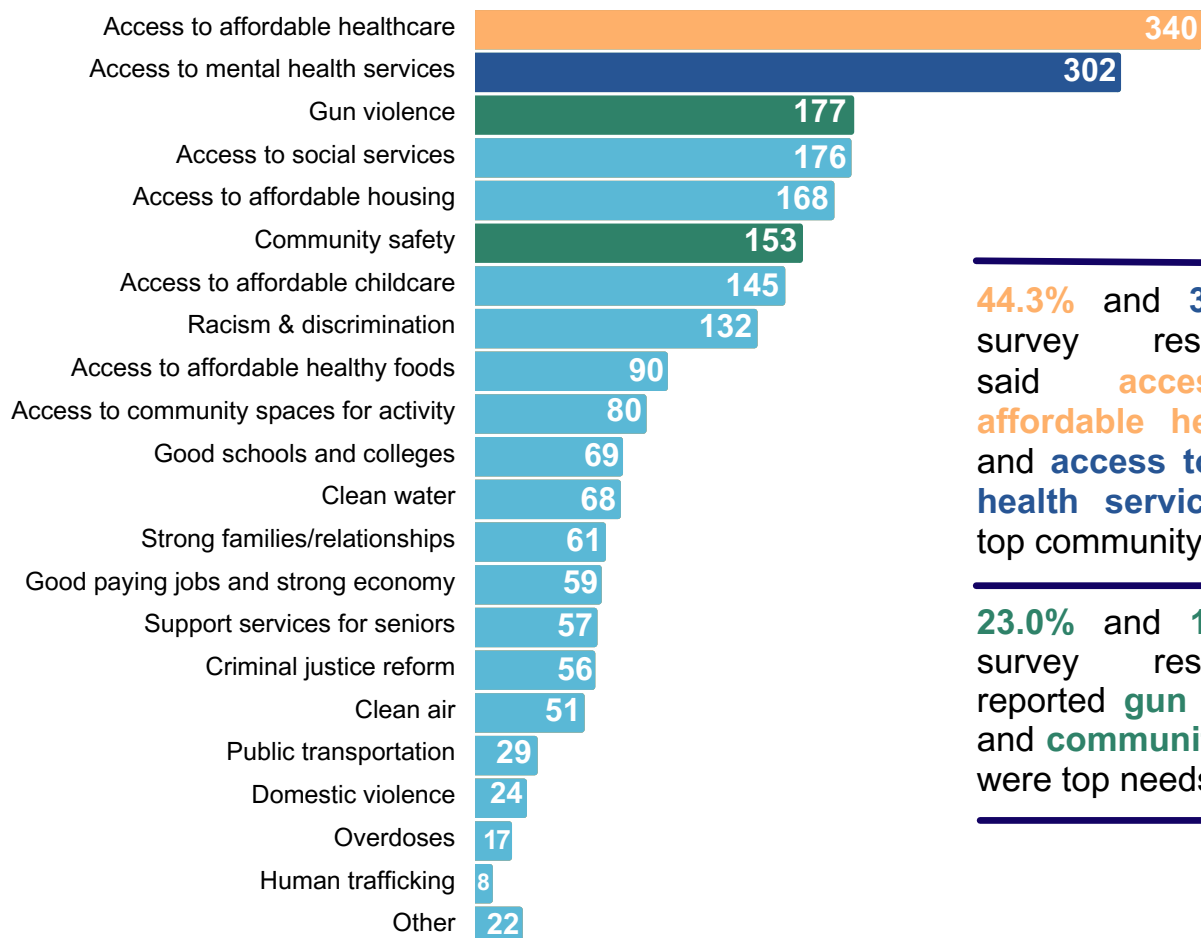
## Mental Health, Communicable Disease, and Environmental Health were the top 3 health concerns selected in the community survey



70.5% of survey respondents selected **mental health and mental conditions** as a top health concern

Data from NSHD 2022 Community Health Survey. Each survey respondent was able to select three top health concerns in the North Shore. A total of 769 respondents answered this question.

## Access to affordable healthcare and access to mental health services were the top 2 community needs selected in the community survey



44.3% and 39.3% of survey respondents said **access to affordable healthcare** and **access to mental health services** were top community needs.

23.0% and 19.9% of survey respondents reported **gun violence** and **community safety** were top needs.

Data from NSHD 2022 Community Health Survey. Each survey respondent was able to select three top community needs in the North Shore. A total of 768 respondents answered this question.



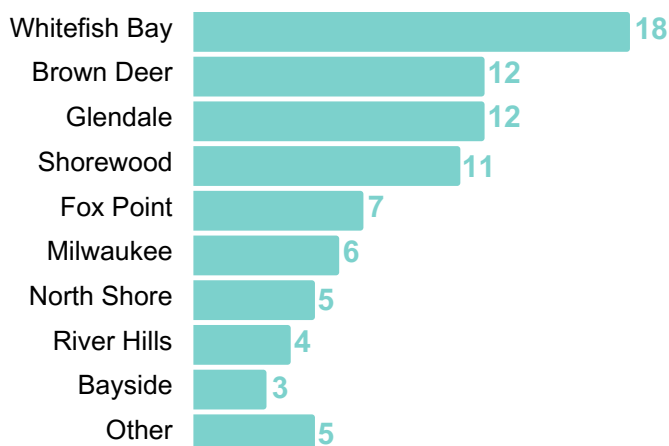


# KEY INFORMANT INTERVIEWS

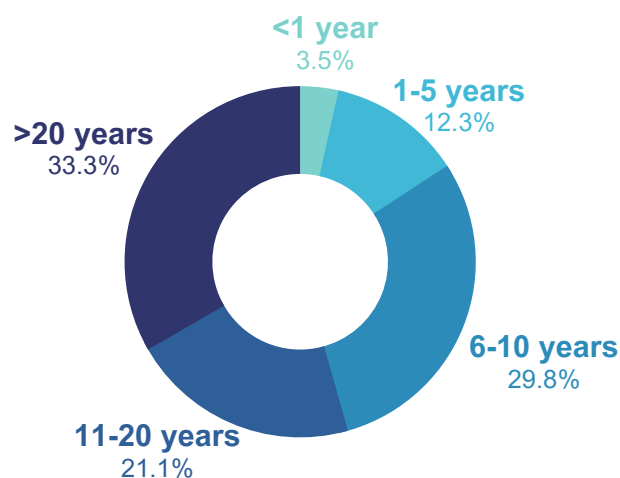
**57** Key informants were interviewed

Interviewees represented: Village Managers, Village Presidents, North Shore Fire Rescue, Police Chiefs, North Shore Board of Health, School Leaders, Recreation Departments, School Nurses, Healthcare Providers, Business Owners, Faith-Based Organizations, Residents, and more.

**When asked what community they feel associated or connected with the most...**



**When asked how long they have been connected to the North Shore...**



**When asked on a scale of 1-10 how they would rate the overall health of North Shore residents...**

Average rating, (n=56)

**7.5**

Before the COVID-19 Pandemic

**6.8**

At time of interview (2022)

➤ 32 interviewees decreased their rating

➤ 20 interviewees reported the same rating before COVID-19 and at time of interview

➤ 2 interviewees increased their rating

\*2 interviewees only provided one of the two ratings. These ratings were included in the averages.

**When asked what factors contributed to the change in rating...**







# KEY THEMES IDENTIFIED IN INTERVIEWS

## 1 Mental Health

70.2%

of interviewees (40/57) said **mental health** is the most critical health issue impacting the North Shore.

Of the 40 interviewees who said mental health...

- 11 mentioned the COVID-19 pandemic (27.5%)
- 9 mentioned youth mental health (22.5%)
- 7 mentioned substance use (17.5%)
- 6 mentioned anxiety (15%)

“—  
Mental health. I think it's the after effects  
and the impacts of COVID.  
—”

“—  
I think right now... (the most critical health issue is)  
the social, emotional health of the community.  
—”

## 2 COVID-19

28.1%

of interviewees (16/57) said **COVID-19** is the most critical health issue impacting the North Shore.

Of the 16 interviewees who said COVID-19...

- 4 mentioned stress (25%)
- 4 mentioned youth mental health (25%)
- 3 mentioned isolation (18.8%)

“—  
Well, for me, it's tough not to say COVID.  
Yeah, I think the pandemic, I would say  
COVID (is the most critical health issue).  
—”

“—  
Well, we know COVID universally impacted everyone to some extent.  
Based on what I know and the way our students returned to school  
last year, I would suggest that the impact was more from a mental  
health standpoint.  
—”

## 3 Substance Use

19.3%

of interviewees (11/57) said **substance use** is the most critical health issue impacting the North Shore.

Of the 11 interviewees who said substance use...

- 4 mentioned alcohol (36.4%)
- 3 mentioned marijuana (27.3%)

“—  
The stressors of COVID impacted... mental health in  
terms of ability to cope with adverse events, but also  
our use of substances to cope increased. So alcohol  
and drugs as a method of coping with stress increased.  
—”

“—  
I would say mental health (is the most critical health  
issue), but also substance use, and really the big two  
around that would be alcohol use as the primary and  
then, you know, probably marijuana use in kids.  
—”

Many interviewees stated more than one health issue as the most critical. If more than one was stated, they were all included in the data.



# KEY THEMES IDENTIFIED IN INTERVIEWS

When asked if there are people, groups of people, or communities whose health may not be as good as others..

24	Low Income/Socioeconomic Status	8	Children
17	Older Adults	6	People with no health insurance
12	Black or African American	6	Village of Brown Deer

“You know I mean talk about a public health concern, racism is a public health concern and if I can list that as top amongst priorities in the North Shore, it would be at or near the top.”

When asked what barriers or challenges exist to improving health in the North Shore...

23	<b>Access (40.4%)</b> Interviewees expressed concern over lack of access to healthcare services, specifically timely services and mental health services.	11	<b>Socioeconomic Status, Finances (19.3%)</b> Interviewees voiced concern around disparities in socioeconomic status (SES) and cost of healthcare, as well as lack of municipal funding.
11	<b>Information (19.3.%)</b> Interviewees expressed the need for accessible, accurate, and timely information on health-related topics.	8	<b>Transportation (14.0%)</b> Interviewees stated that transportation to healthcare services and other community resources is a barrier.

“I think for people who are less... socioeconomically resourced, transportation (is a barrier) because... to get to any kind of healthcare, or for that matter, anything, it's tough... unless you're able to use one of the main bus lines, it can be tough to get around...”

When asked what strengths or assets exist to support health in the North Shore...

26	<b>Sense of Community (45.6%)</b> Interviewees stated they observe a high level of investment in the community by residents and community groups.	11	<b>Schools (19.3%)</b> Interviewees stated there are good schools in the area that also offer activities.
19	<b>Health Department (33.3%)</b> Interviewees emphasized the collaborative and supportive role the health department plays.	10	<b>Education (17.5%)</b> Interviewees expressed the community values education and many people are highly educated.
12	<b>Healthcare Resources (21.0%)</b> Interviewees expressed there are many nearby places to receive healthcare and a large proportion of our population has health insurance.	6	<b>Economic Advantage (10.5%)</b> <b>Opportunity to be Active (10.5%)</b>

“Yeah, this is an extremely educated community. this community values education, values science, values overall health, values community and using those assets puts this area in a better position than most.”

# NORTH SHORE COMMUNITY PROFILE

## TOTAL POPULATION, 2020

67,695

U.S. Census Bureau, 2020 Census

## MILWAUKEE COUNTY TOTAL POPULATION

939,489

U.S. Census Bureau, 2020 Census

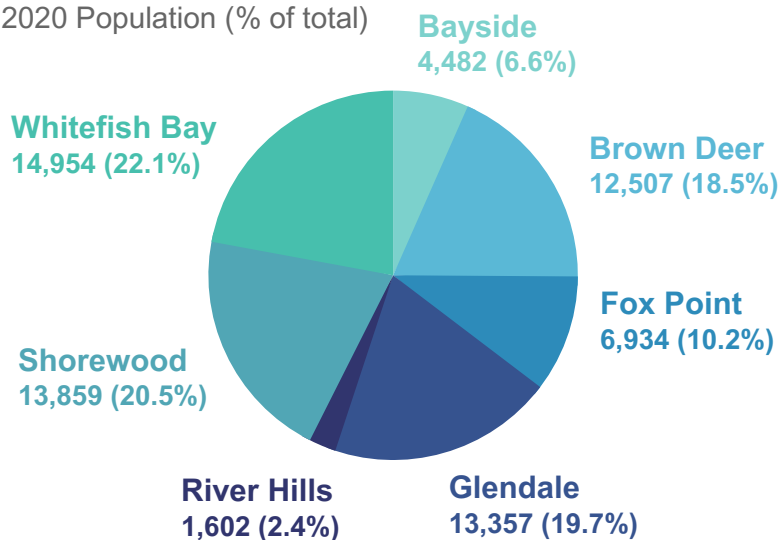
## WISCONSIN TOTAL POPULATION

5,893,718

U.S. Census Bureau, 2020 Census

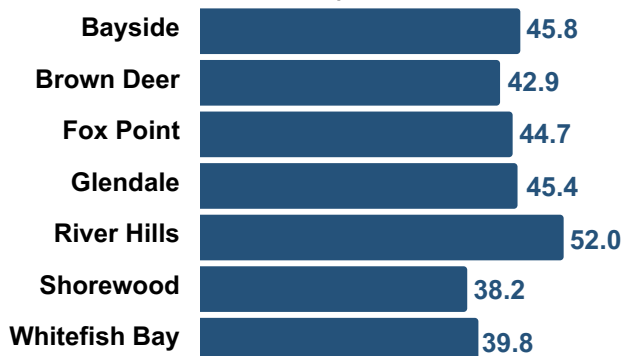
## SEVEN MUNICIPALITIES

2020 Population (% of total)



U.S. Census Bureau, 2020 Census Redistricting Data (Public Law 94-171)

## MEDIAN AGE (YEARS), 2021



U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates

19.4%

2021 ACS

of the population in the North Shore is over 65 years of age, compared to 17.0% state-wide.

## FIVE ZIP CODES

- 53209** Glendale, Brown Deer, River Hills
- 53211** Shorewood, Whitefish Bay, Glendale
- 53212** Glendale
- 53217** Bayside, Fox Point, Glendale, River Hills, Whitefish Bay
- 53223** Brown Deer

53217 includes only residents from North Shore communities. The other four zip codes cross borders and include residents from the City of Milwaukee. The 53212 zip code is primarily City of Milwaukee and is not included in North Shore zip code data throughout this report.

## NORTH SHORE POPULATION BY AGE, 2021

Age Group	n	%
0 to 9	8,212	12.2%
10 to 19	8,983	13.3%
20 to 29	6,273	9.3%
30 to 39	8,367	12.4%
40 to 49	9,227	13.7%
50 to 59	8,810	13.1%
60 to 69	8,707	12.9%
70 to 79	6,056	9.0%
80+	2,753	4.1%
<b>Total</b>	<b>67,388</b>	<b>100%</b>

U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates

# POPULATION BY RACE & MUNICIPALITY, 2020

A majority of the North Shore population identifies as White, with Black or African Americans being the second most populous racial group. 82% of those who identify as Black or African American live in Brown Deer and Glendale.

	White	Black or African American	Two or more	Asian	Other	American Indian and Alaska Native	Native Hawaiian and Other Pacific Islander
Bayside	3,709	219	274	228	42	7	<5
Brown Deer	5,634	4,731	820	992	277	44	9
Fox Point	5,869	231	409	313	103	5	<5
Glendale	9,304	2,370	925	520	193	36	9
River Hills	1,252	109	117	112	12	0	0
Shorewood	11,143	582	1,074	859	169	30	<5
Whitefish Bay	12,654	418	977	725	151	21	8
<b>North Shore</b>	<b>49,565</b>	<b>8,660</b>	<b>4,596</b>	<b>3,749</b>	<b>947</b>	<b>143</b>	<b>35</b>
<b>North Shore, %</b>	<b>73.2%</b>	<b>12.8%</b>	<b>6.8%</b>	<b>5.5%</b>	<b>1.4%</b>	<b>0.2%</b>	<b>0.1%</b>

U.S. Census Bureau, 2020 Census Redistricting Data (Public Law 94-171)

## GENDER

**51.4%** Female **48.6%** Male

US Census Bureau, 2021 ACS

## ETHNICITY

**4.9%** of the population in the North Shore is Hispanic or Latino (of any race), compared to 7.6% state-wide.

US Census Bureau, 2020 Census

## LANGUAGE SPOKEN AT HOME

**English** ..... **87.4%**

**Other Indo European** ..... **5.5%**

**Asian & Pacific Island** ..... **3.5%**

**Spanish** ..... **2.5%**

**All Other Languages** ..... **1.2%**

U.S. Census Bureau, 2021 American Community Survey

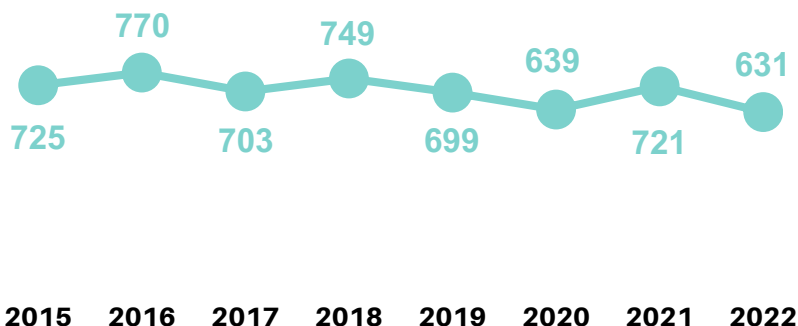
# HEALTH OUTCOMES

Health outcomes refer to the overall health status of individuals or populations, including the incidence and prevalence of disease, disability, and injury, as well as measures of physical, mental, and social health. Factors such as access to healthcare, environmental conditions, lifestyle choices, and the social determinants of health can all affect health outcomes. Programs and policies implemented at the local, state, and federal levels can impact these factors and, in turn, influence health outcomes within a community.

## Birth Outcomes

### Number of Births

The number of births per year in the North Shore has trended down slightly from 2015 to 2022.



Data Source: Vital Records, State of Wisconsin, 2016-2022

### Infant Mortality Rate, 2020

North Shore

6.3

per 1,000  
live births

Milwaukee County

9.6

per 1,000  
live births

Wisconsin

6.0

per 1,000  
live births

Data Source: Wisconsin Interactive  
Statistics on Health (WISH)

## Maternal Mortality

A maternal death is when a woman dies while pregnant or within 42 days after giving birth due to a cause connected to or made worse by the pregnancy or its treatment, excluding accidental or unrelated causes.



**1,205 people died of maternal causes in the United States in 2021.**

That's compared to 861 people who died in 2020 and 754 people in 2019. Rates for Black women (69.9 per 100,000) were significantly higher than rates for White (26.6 per 100,000) and Hispanic (28.0 per 100,000) women.

Source: Hoyert DL. Maternal mortality rates in the United States, 2021. NCHS Health E-Stats

### Research shows there are many factors that influence maternal mortality:

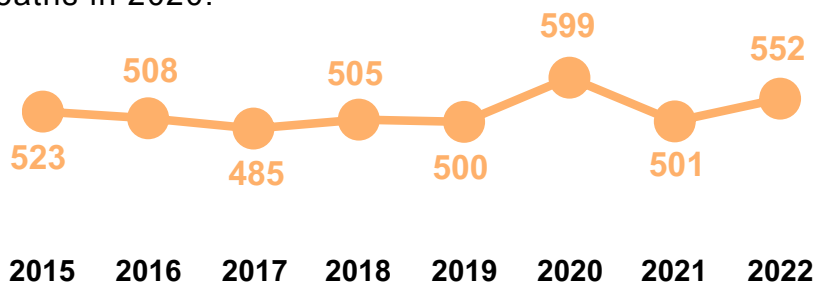
- Patient factors: socioeconomic status, race and ethnicity, gender, behaviors, beliefs, biology and genetics
- Community and neighborhood factors: social networks, built environment and housing
- Provider factors: knowledge, implicit bias and communication
- System factors: access to high quality care, structural racism, social and political policies, and healthcare institutions (Howell E. A., 2018).

The COVID-19 pandemic adversely affected many of these factors, such as access to healthcare, employment, and living environment, which likely exacerbated maternal mortality rates (Thoma et al., 2019). The direct health effects of COVID-19 may also explain the increase in maternal mortality rates from 2019 to 2021, as pregnancy-related mortality ratios increased consistent with increasing rates of COVID-19-related deaths among women of reproductive age (Thoma et al., 2019).

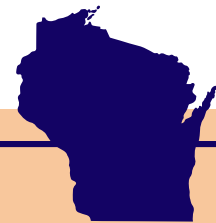
# Mortality

## Number of Deaths

The number of deaths per year in the North Shore has trended up slightly from 2015 to 2022, with a spike in deaths in 2020.



*Vital Records, State of Wisconsin, 2015-2022*



Heart disease, cancer, and stroke, the leading causes of mortality, have significantly decreased in Wisconsin and the nation over the past 20 years. This has resulted in a decline in deaths attributable to these chronic diseases.

In recent years, there has been a notable increase in mortality rates among individuals in their 20s, 30s, and 40s in Wisconsin and across the country.

[LEARN MORE](#)



## Cancer was the leading cause of death in the North Shore in 2022

*By primary cause of death indicated on the death report*

2020 2021 2022 2022 mortality rate per 10,000

Cancer	107	98	123	18.2
Heart Disease	107	91	110	16.2
Unintentional Injuries	44	43	32	4.7
Stroke (Cerebrovascular Diseases)	29	23	25	3.7
COVID-19	57	36	23	3.4
Alzheimer's Disease	22	17	20	3.0
Chronic Lower Respiratory Disease	12	18	13	1.9
Assault (Homicide)	<5	<5	11	1.6
Nephritis (Kidney Diseases)	9	7	10	1.5
Suicide	5	6	9	1.3
Chronic Liver Disease & Cirrhosis	5	6	8	1.2
Diabetes Mellitus	18	9	8	1.2
Parkinson Disease	10	<5	8	1.2
Hypertension	7	9	7	1.0
All Other	164	124	145	21.4
<b>Total Deaths, All Causes</b>	<b>599</b>	<b>501</b>	<b>552</b>	<b>81.5</b>

### WHAT IS MORTALITY RATE?

Mortality rate, or death rate, is a measure of the number of deaths in a particular population, scaled to the size of that population, per unit of time.

### DISEASE-SPECIFIC MORTALITY RATE

Disease-specific mortality rate is the number of deaths due to a particular disease, scaled to the size of the population, per unit of time. In the North Shore, there were 123 cancer deaths in 2022 in a population of 67,695. The cancer mortality rate for the North Shore was 18.2 per 10,000 in 2022.

$$\frac{123 \text{ cancer deaths}}{67,695 \text{ population}} \times 10,000 = 18.2$$

Source: *Vital Records, State of Wisconsin, 2021-2022*  
North Shore Total Population = 67,695 according to 2020 U.S. Census

\*Death data are estimated from preliminary death certificates



# Chronic Disease

A chronic disease is a long-term medical condition that persists for an extended period of time. They typically require ongoing medical attention and can limit activities of daily living. The most common chronic diseases in the U.S. include heart disease and stroke, cancer, and diabetes.

**6 in 10 adults**

in the United States have a chronic disease

**4 in 10 adults**

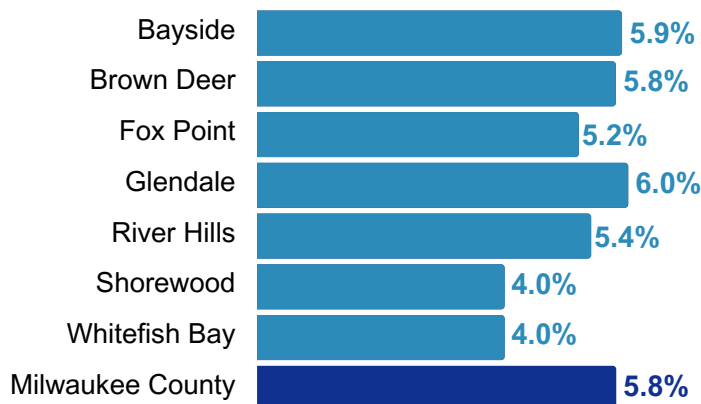
have two or more

Centers for Disease Control (CDC), National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)

**Over 60% of deaths in the North Shore in 2022 were attributable to chronic diseases.**

Vital Records, State of Wisconsin, 2022

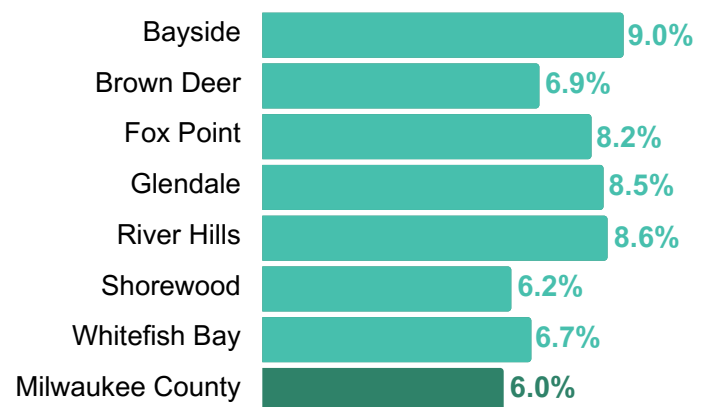
## % of Adults who experienced coronary heart disease, 2020



This indicator shows the percentage of adults who have ever been told by a health care provider that they had coronary heart disease.

Data Source: CDC Places

## % of Adults with cancer, 2020



This indicator shows the percentage of adults aged 18 and over who have ever been told by a health professional that they have any type of cancer, except skin cancer.

Data Source: CDC Places



## KEY INFORMANT QUOTES

“

*...to make an impact in outcomes of certain chronic conditions that seem to specifically affect certain races and socioeconomic groups you have to you know get to the root cause of that and a lot of it is just access to the good choices for food and I think is huge.*

“

*...I think that obesity and all the related comorbidities are a prime concern. We've got a relatively affluent community and when we've got a whole bunch of people that not only suffer from obesity, which in and of itself creates health risk, but that leads to increased risk of asthma, increased risk of diabetes type 2, increased risk of stroke, heart attack, heart disease and other cardio pulmonary issues, so really that is a primary (concern) and it doesn't seem to be getting better, and it only seems to be continuing to grow.*

”

# Communicable Disease

A communicable disease is an illness caused by an infectious agent, such as a virus or bacteria, that can be spread from person to person or from animals to people. Examples of communicable diseases include the flu, COVID-19, and sexually transmitted infections like HIV/AIDS. These diseases can spread through direct or indirect contact with infected individuals or their bodily fluids, as well as through contaminated surfaces or objects.



**40.7%** of survey respondents selected communicable disease as a top health concern.

## KEY INFORMANT QUOTE ON CRITICAL HEALTH ISSUE



“ I think also like all those childhood illnesses that we weren't really seeing during COVID. My concern is that they're going to come back even stronger, or stronger flu season, hand foot mouth being more prevalent, more cold virus and things like that, chickenpox, because children are you know maybe waiting on vaccinations. So like an increase in more of those typical childhood illnesses.

## Disease Cases

Confirmed and Probable cases of disease

### Count of cases by disease category

Excluding COVID-19

	2021	2022
Food or Water-borne illness	35	49
Hepatitis - A, B, C	23	20
Mycobacterium - non-TB	37	21
Vaccine Preventable*	<5	5
Sexually Transmitted Infections**	358	347
TB - Active	0	<5
TB - Latent	15	22
Vector-borne (mosquito & tick)	5	6
Influenza Hospitalization	<5	29
Streptococcus	8	8
Fungal	<5	<5
Other	11	12
<b>Total Cases</b>	<b>494</b>	<b>522</b>

\*Pertussis, Varicella (chicken pox), Mumps, etc.

\*\*Chlamydia, Gonorrhea, Syphilis

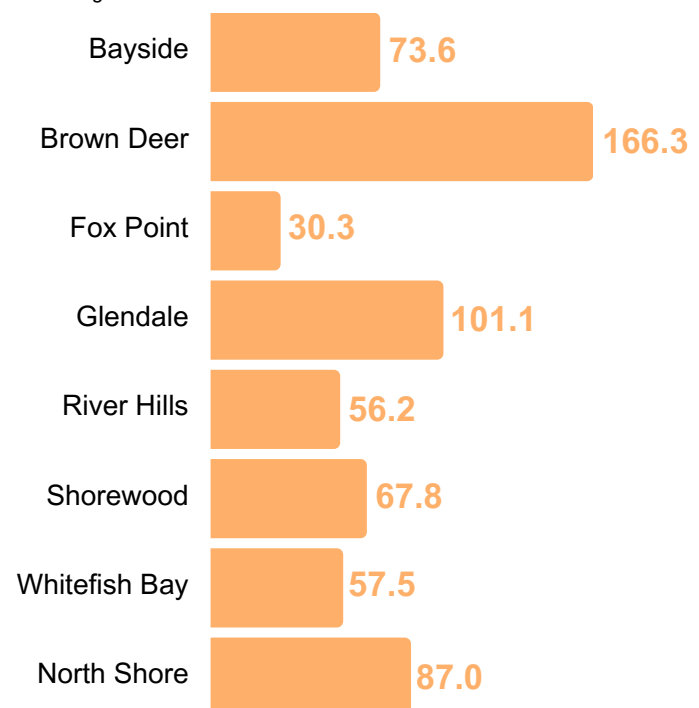
Wisconsin Electronic Disease Surveillance System (WEDSS)

## Disease Investigations

Confirmed, Probable and Suspect cases of disease

### Rate per 10,000, by community

Excluding COVID-19



Wisconsin Electronic Disease Surveillance System (WEDSS)

# COVID-19

There were **10,206** reported COVID-19 cases in the North Shore in 2022. This is a rate of **1,507.6 cases per 10,000** population. COVID-19 cases accounted for **95%** of the reported communicable disease cases in the North Shore in 2022.

Wisconsin Electronic Disease Surveillance System (WEDSS)

**116** COVID-19 deaths in the North Shore since the start of the pandemic.

Vital Records, State of Wisconsin



## LIFE CHANGES EXPERIENCED DURING THE COVID-19 PANDEMIC

The impacts of the COVID-19 pandemic have extended beyond illness and death. In our community survey, respondents were asked what life changes they experienced due to COVID-19. The results demonstrate the far-reaching consequences of the pandemic.

**411 (56.8%)**

Myself or an immediate family member was diagnosed with COVID-19 and have since fully recovered

**405 (55.9%)**

Stress because of any of these changes

**337 (46.5%)**

Friendship loss or changes

**308 (42.5%)**

School closure or modified instruction (for yourself or children)

**265 (36.6%)**

School or work days missed due to COVID-19 isolation or quarantine (for yourself or children)

**111 (15.3%)**

Financial distress

**90 (12.4%)**

Job loss (yourself or immediate family)

**77 (10.6%)**

Loss of a loved one due to COVID-19

**68 (9.4%)**

Myself or an immediate family member was diagnosed with COVID-19 and still have Post-COVID-19 ("long COVID") symptoms

**63 (8.7%)**

Changes in living situation

**61 (8.4%)**

Loss or change(s) in relationship with partner(s)

**23 (3.2%)**

Food Insecurity

**86 (11.9%)**  
Other



## KEY INFORMANT QUOTE

“

*If I have to pick, the (most critical health issue in the North Shore), number one obviously would be COVID, for sure. I think not just for physical health though, I think it has put such a strain on us psychologically as far as stress is concerned and socially, I mean it's really created a huge divide between people as far as, you know, what your belief is or you know whether you're going to follow the science or not. And I think right now that is of concern to me.*

”

# Mental Health



Symptoms of **anxiety** and **depression** increased across the U.S. during the pandemic and are more pronounced among individuals experiencing household job loss, young adults, and women.

KFF analysis of U.S. Census Bureau, Household Pulse Survey, 2023



**70.5%**

of survey respondents selected mental health and mental conditions as a top health concern.



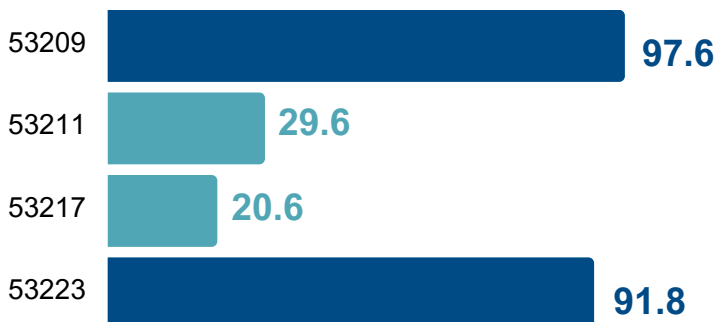
**70.2%**

of interviewees (40/57) said mental health is the most critical health issue impacting the North Shore.

## 2023 Mental Health Index

is a measure of socioeconomic and health factors correlated with self-reported poor mental health.

All zip codes, counties, and county equivalents in the United States are given an index value from 0 (low need) to 100 (high need).



Calculated by Conduent Healthy Communities Institute using data from Claritas, 2023; American Community Survey, 2017-2021; and CDC PLACES Project, 2020.



## New Surgeon General Advisory Raises Alarm about the Devastating Impact of the Epidemic of Loneliness and Isolation in the United States

Approximately half of U.S. adults reported experiencing measurable levels of loneliness, even before the onset of the COVID-19 pandemic.

Health consequences of poor or insufficient social connection:

- 29% increased risk of heart disease
- 32% increased risk of stroke
- 50% increased risk of developing dementia for older adults
- 60% increased risk of premature death
- Increased risk of developing depression

LEARN MORE



## KEY INFORMANT QUOTES

“

*I think that obviously the pandemic has impacted mental health significantly.*

”

“

*When I think about social isolation and loneliness... even though we all live so close together, I do really fear for people who are feeling a lot of isolation. I think some places do better than others, but that interconnectedness between generations and supporting our elders and even our young families and people living alone*

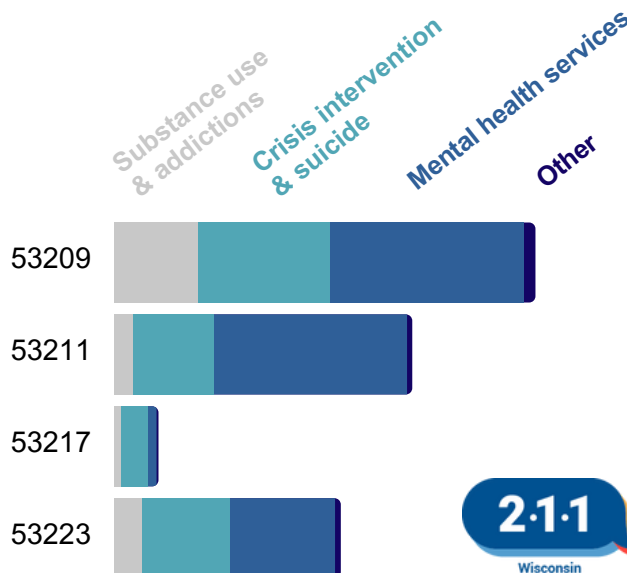
”

**988** SUICIDE & CRISIS  
LIFELINE

The Suicide & Crisis Lifeline number was updated. This new, shorter phone number will make it easier for people to remember and access mental health crisis services

## There were 3,618 requests made to 211 related to mental health

in the last year (April 18, 2022 to April 17, 2023) in the four North Shore zip codes. Calls related to mental health made up **16.6%** of all calls to 211 in this time period in the North Shore.



**2-1-1**

Wisconsin

Data Source: 2-1-1 Counts. Health Communication Impact, LLC.

# Substance Use

Substance use refers to the consumption of various substances, such as caffeine, tobacco, alcohol, inhalants, street drugs (illicit drugs), prescription medications (including opioids), synthetic opioids, and heroin, which can be taken orally, inhaled, injected, or absorbed into the body. Substance use can lead to dependence and other harmful effects and impacts.

2-1-1

Wisconsin

**Substance use was a top health request** of 211 calls related to mental health.

**13.3% or 490 mental health related calls were substance use related**, out of 3,680 calls, in the four zip codes (53209, 53211, 53217, 53223), between April 18, 2022 and April 17, 2023).

Data Source: 2-1-1 Counts. Health Communication Impact, LLC.

**24.18%**

Of those surveyed listed **substance use as a top health concern (186/769).**



## KEY INFORMANT QUOTES

“

*The stressors of COVID-19 impacted mental health in terms of ability to cope with adverse events, but also our use of substances to cope increased... so alcohol and drugs as a method of coping with stress increased.*

”



“

*The impact on the workforce, physical health, mental emotional health and then the lack of coping skills which resulted in the overconsumption of alcohol and other illicit substances has become so predominant.*

”



**29**

North Shore resident **deaths from substance use poisoning** between 2020 and 2022.

**82.7%**

of North Shore resident substance use poisoning deaths **involved synthetic opioids**, between 2020 and 2022.

**SYNTHETIC OPIOIDS:** synthesized laboratory substances that act on the same targets in the brain as natural opioids (e.g., morphine and codeine) to produce analgesic (pain relief) effects.

Data source: Wisconsin Department of Health Services, 2017-2022 and Wisconsin Vital Statistics, 2020-2022.

# Healthy Aging

Healthy aging means maintaining physical, mental, and social health to preserve independence and connection in society as we age. It involves taking care of our bodies and minds, fostering social connections, and adapting to life changes. To promote healthy aging, it is important to prevent and manage chronic diseases, adopt a healthy lifestyle, and regularly access healthcare and social support.



**27.4%** of survey respondents selected **healthy aging** as a top health concern.



**7.4%** of survey respondents selected **support services for seniors** as a top needs concern.



## SURVEY RESPONDENT & KEY INFORMANT QUOTES



“There are many seniors living by themselves, many who have lost their partners... many of them don't have family nearby and (are) struggling.”



“We need to try to look out for those populations that may be a little more vulnerable. The senior population is more vulnerable.”



## COMMON SURVEY AND INTERVIEW THEMES:

Around healthy aging that emerged include:

- **Programming**
- **Housing**
- **Transportation**
- **Isolation**
- **Loss of loved ones**
- **Accessibility and care**

**!!! 88.4%**

7,828 of 8,849 North Shore Fire Rescue **fall-related service calls were for individuals aged 60 years and older, between 2020 and 2022.**

Data source: First Watch, North Shore Fire Rescue EMS-incident Records, 2020-2022.

## SECONDARY DATA

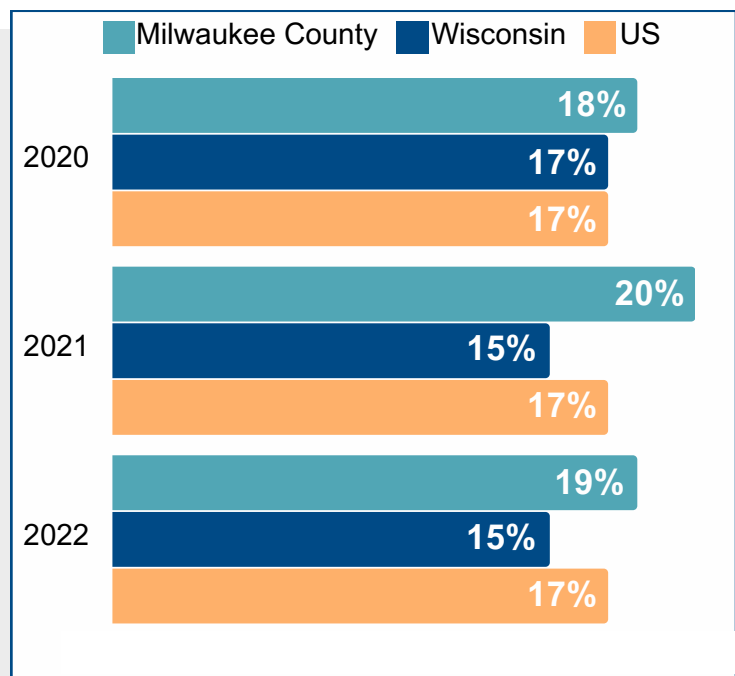
**Life expectancy in Milwaukee County is 75.9**, slightly lower than state (78.9) and national (78.5) expectancies (2022).

**THE GOOD NEWS?** According to County Health Rankings and Roadmaps *the overall percentage of people who report fair or poor health status is showing a decreasing trend!* Yet, in 2023, **among those age 65 years and older, 15% of Milwaukee County respondents reported a fair or poor health status**, compared to 12% of Wisconsinites overall, and 12% nationally.

Data source: Life Expectancy and Fair or Poor Health Status, County Health Rankings & Roadmaps, 2020-2022.

## Fair or Poor Health Status, 2020-2022

Percentage by Milwaukee County, Wisconsin and US





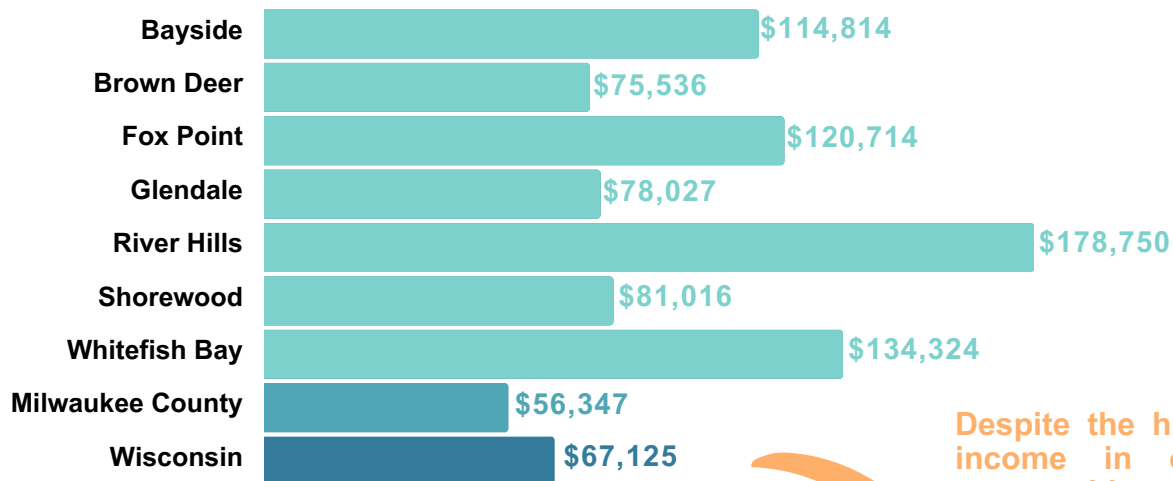
# SOCIAL & ECONOMIC FACTORS

Income, education, employment, community safety, and social support are all social and economic factors that influence health. Social and economic factors can be shaped by broader structural issues like racism, poverty, and discrimination, which can contribute to health disparities and inequities.

## Income & Poverty

### Median Household Income by Community, 2021

All seven North Shore communities have a higher median household income than Milwaukee County and Wisconsin.



U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates

Despite the high median income in our seven communities, inequalities exist by race.

### % Living in Poverty in North Shore by Race & Ethnicity, 2021

White, 6.4%

Black, 16.8%

Asian, 10.6%

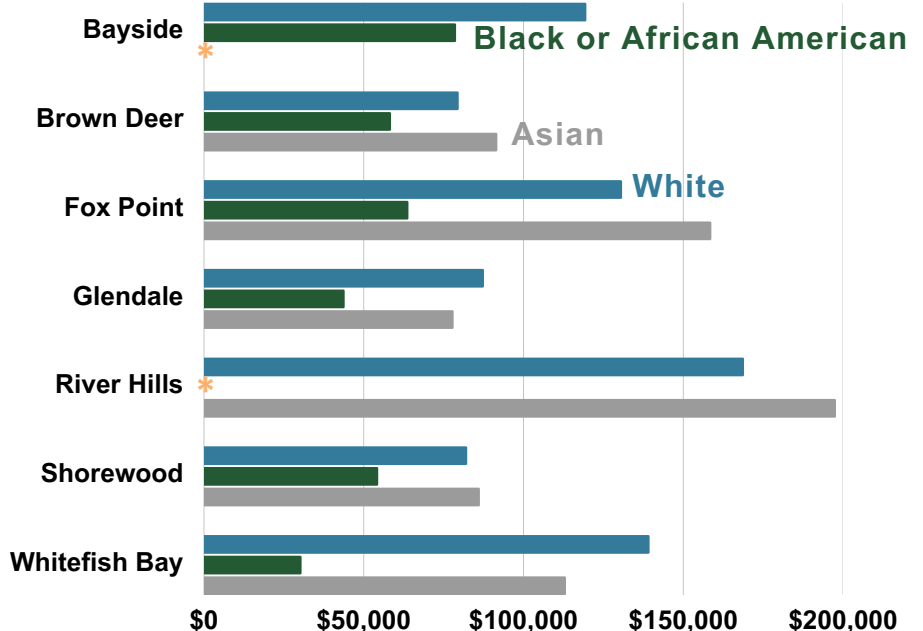
Other, 10.3%

Two or More Races, 12.3%

Hispanic or Latino, any race, 5.5%

U.S. Census Bureau, 2021 ACS, 5-year Estimates

### Median Household Income by Race, 2021



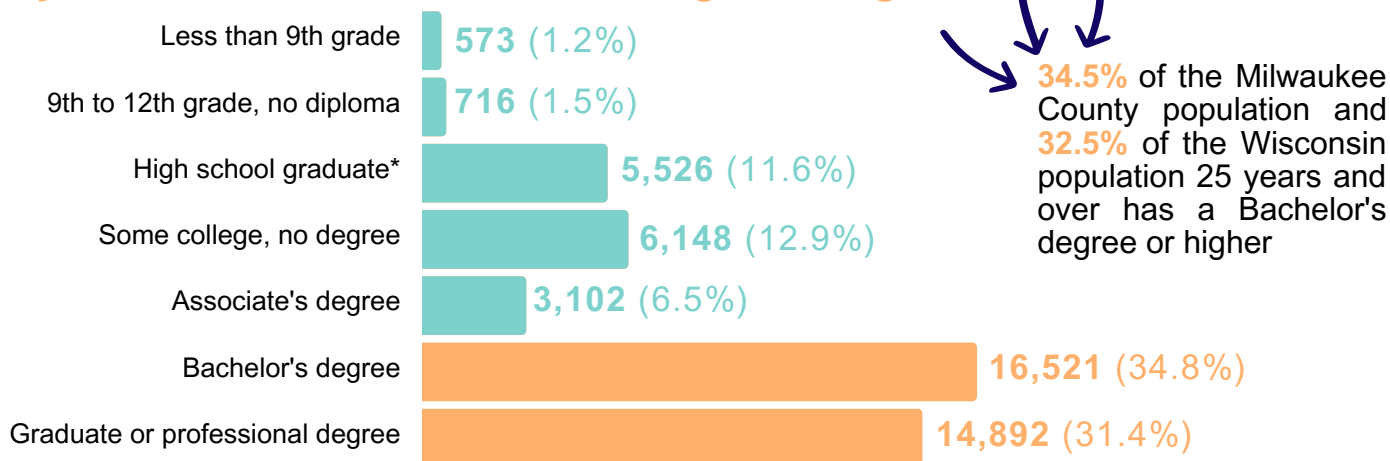
U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates

\* Missing Data: The estimate could not be computed by US Census because there were an insufficient number of sample observations.

# Education

Research suggests that higher levels of education are associated with better health outcomes, including longer life expectancy and fewer chronic illnesses. This is because more education is linked to higher incomes, better employment opportunities, and increased social support, which together support opportunities for healthier choices.

**Approximately two thirds (66.2%) of the North Shore population 25 years and over has a Bachelor's degree or higher**



34.5% of the Milwaukee County population and 32.5% of the Wisconsin population 25 years and over has a Bachelor's degree or higher

\*Includes equivalency

U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates



“This is an extremely educated community. This community values education, values science, values overall health, values community and using those assets puts this area in a better position than most.”

# Employment

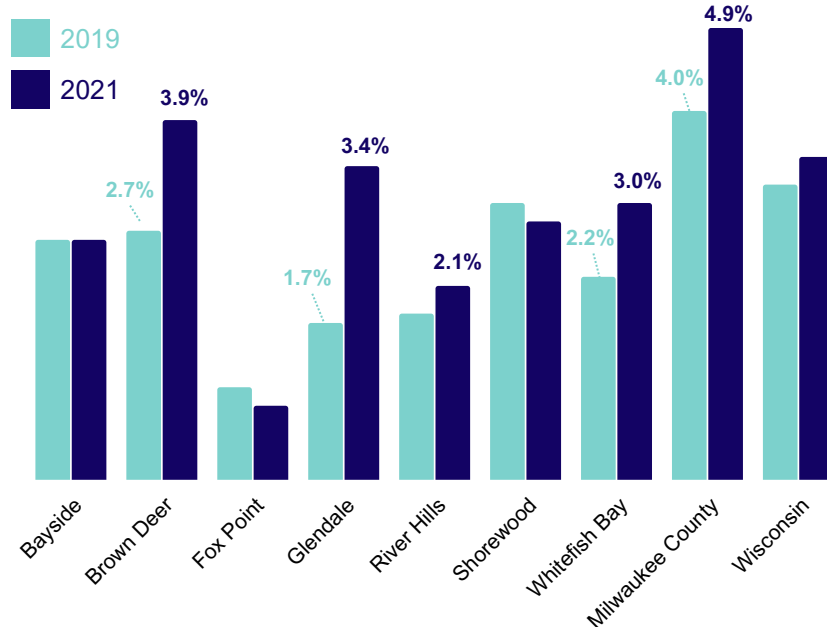
Employment can impact health by providing individuals with access to financial resources, healthcare benefits, and social support networks. Having a job can promote a sense of purpose and social inclusion, which can improve mental health. Conversely, unemployment or job insecurity can increase stress, anxiety, and depression, which can negatively impact physical and mental health.

Education and employment also influence an individual's socioeconomic status, which can further impact health outcomes.

$$\text{Unemployment Rate} = \frac{\text{No. of Unemployed Persons}}{\text{No. of People in Labor Force}}$$

**In four of the North Shore communities, the unemployment rate increased from 2019 to 2021**

Milwaukee County increased from 4.0% to 4.9%.



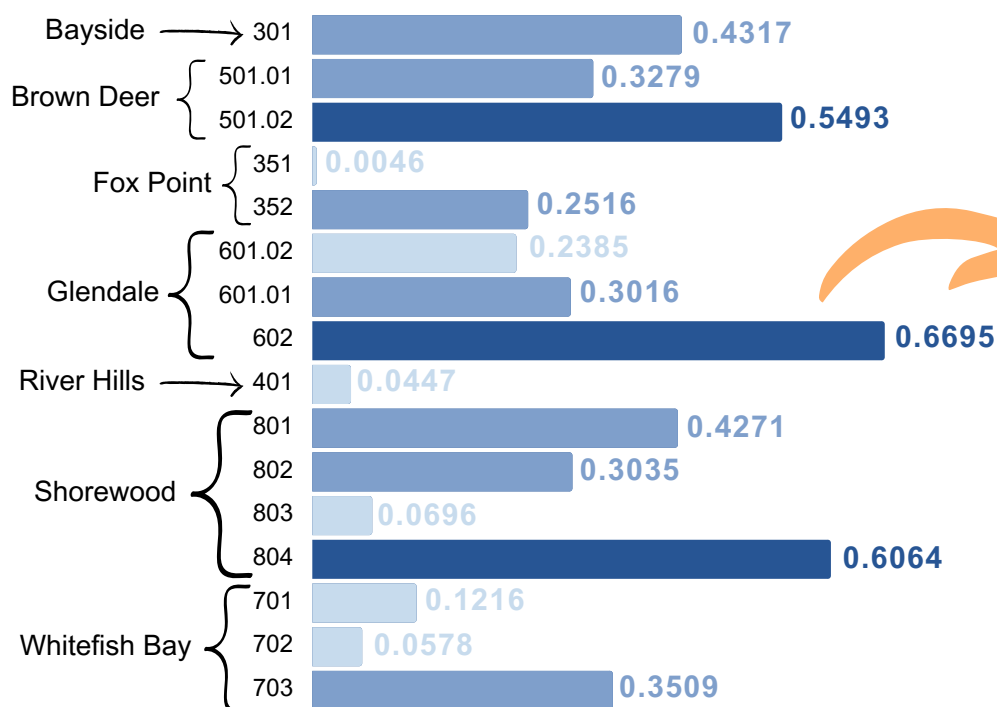
U.S. Census Bureau, 2019 and 2021 American Community Survey, 5-year Estimates. Unemployment rate defined by U.S. Census Bureau is the percentage of population ages 16 and older unemployed but seeking work.

# Social Vulnerability Index (SVI)

Social vulnerability refers to the potential negative effects on communities caused by external stresses on human health. Reducing social vulnerability can decrease both human suffering and economic loss.

The CDC and Agency for Toxic Substances and Disease Registry (ATSDR) created a Social Vulnerability Index (CDC/ATSDR SVI), which uses 16 U.S. census variables to assess the vulnerability of communities and provide a score from 0 (lowest vulnerability) to 1 (highest vulnerability). This helps local officials identify communities that may need additional support before, during, or after disasters.

## Brown Deer, Glendale, and Shorewood each have one census tract with a SVI in the "Medium to High" category



SVI ranking of 0.6695 signifies that 66.95% of census tracts in the nation are less vulnerable than this tract and that 33.05% of tracts are more vulnerable.

Source: CDC, Agency for Toxic Substances and Disease Registry (ATSDR)



## 211 is a statewide information and referral service in Wisconsin.

The service is available 24/7 and is designed to connect individuals and families with community resources and services that can help them with their needs.

The service is free and confidential and can provide information on a wide range of topics, including healthcare, housing, food assistance, mental health, employment, and more. By dialing 211 or visiting the website, people can speak with trained specialists who can assess their needs and provide referrals to local programs and services that can help.

**Data about the calls made to 211 is available by zip code. 211 data is included throughout this report because it provides a timely picture of what people's needs are in the community.**

# Family & Social Supports

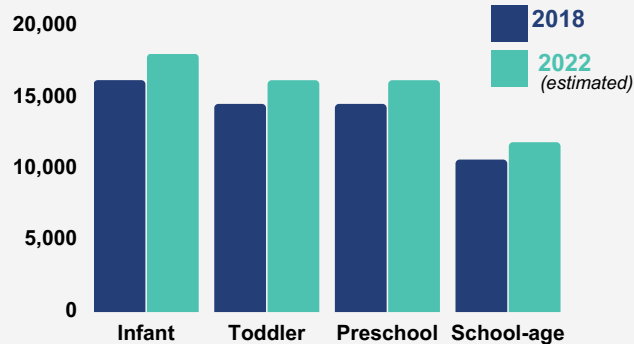
Individuals who enjoy stronger social connections, experience less isolation, and possess higher levels of trust in their interpersonal relationships tend to lead longer and healthier lives compared to those who lack social connections. Communities with greater social capital offer their residents enhanced access to support systems and valuable resources, in contrast to neighborhoods with limited social capital.



“Milwaukee is one of the most segregated cities in the nation. Our segregation and decades of redlining had led to increased violence and poverty. We live in a bubble in the North Shore and could do better to make it more inclusive.”

## Median annual childcare cost by care setting in Milwaukee County

Childcare price as share of median family income = 26.0%



The data are for center-based settings only, not home-based childcare sites.

Data Source: National Database of Childcare Prices 2016-2018, Women's Bureau, U.S. Department of Labor

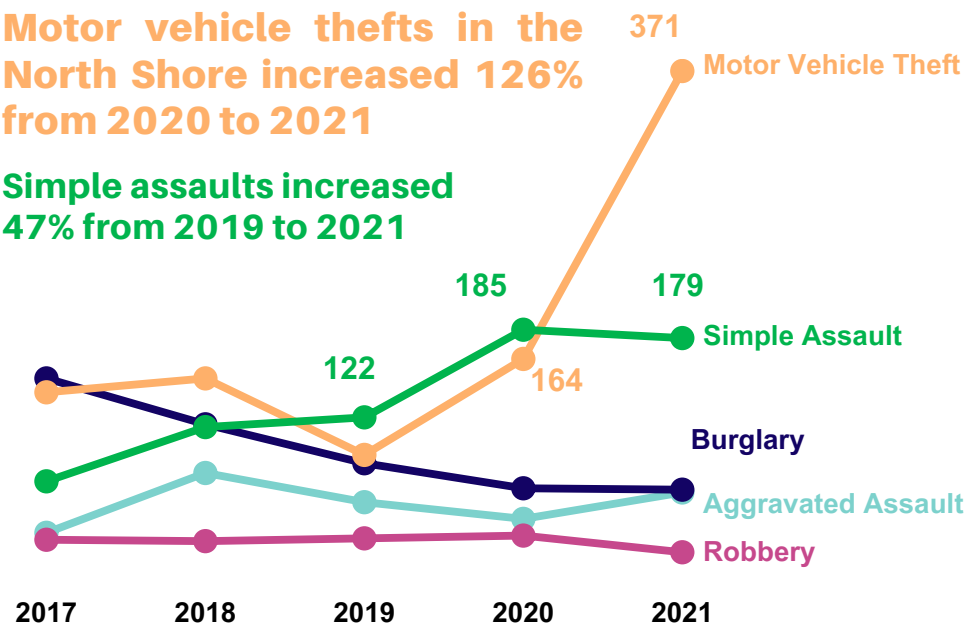
# Community Safety

Approximately 9.4% of deaths in the North Shore in 2022 were due to injuries.

**5.8% Unintentional Injury**  
**2.0% Homicide**  
**1.6% Suicide**

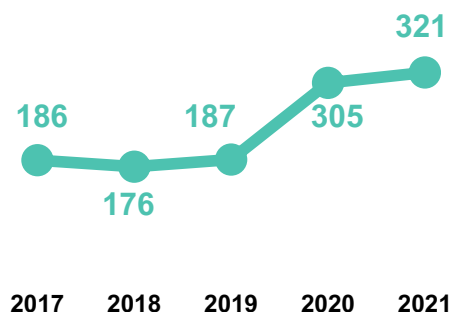
Motor vehicle thefts in the North Shore increased 126% from 2020 to 2021

Simple assaults increased 47% from 2019 to 2021



Uniform Crime Reporting (UCR) Data, Agency Level Offenses provided to Wisconsin Department of Justice by each police department. Data in graph above is for all seven police departments in the North Shore.

Homicides increased 73% in Wisconsin from 2017 to 2021



Uniform Crime Reporting (UCR) Data



“Without safety and a place to live, people can't thrive.”

-Survey Respondent



“With nationwide problems with shootings it is concerning to be in the community. I don't feel safe at all times when in the community and think improved mental health services, educating people on safety would be helpful.”

-Survey Respondent

# Structural Determinants of Health

Factors like individual behaviors, a person's environment, and their social and economic position affect health outcomes, and it is relatively easy to understand why these things influence our health. If a person smokes, they are at a higher risk of lung cancer. If a family is living in an unsafe neighborhood, they are less likely to participate in physical activity and may be at higher risk for chronic diseases. If a person has a high level of education, they are more likely to work in a well-paying job and have access to resources that promote health. Yet, to really understand how these factors influence health, we need to go a step further and consider how policies ultimately impact behavior, environment, and social and economic factors. Local, state, and federal level policies are "upstream" factors that shape people's **socio-economic position**, which is a key factor in creating health disparities. These social, economic, and political mechanisms, and the resulting socio-economic positions, are referred to as the **structural determinants of health**.

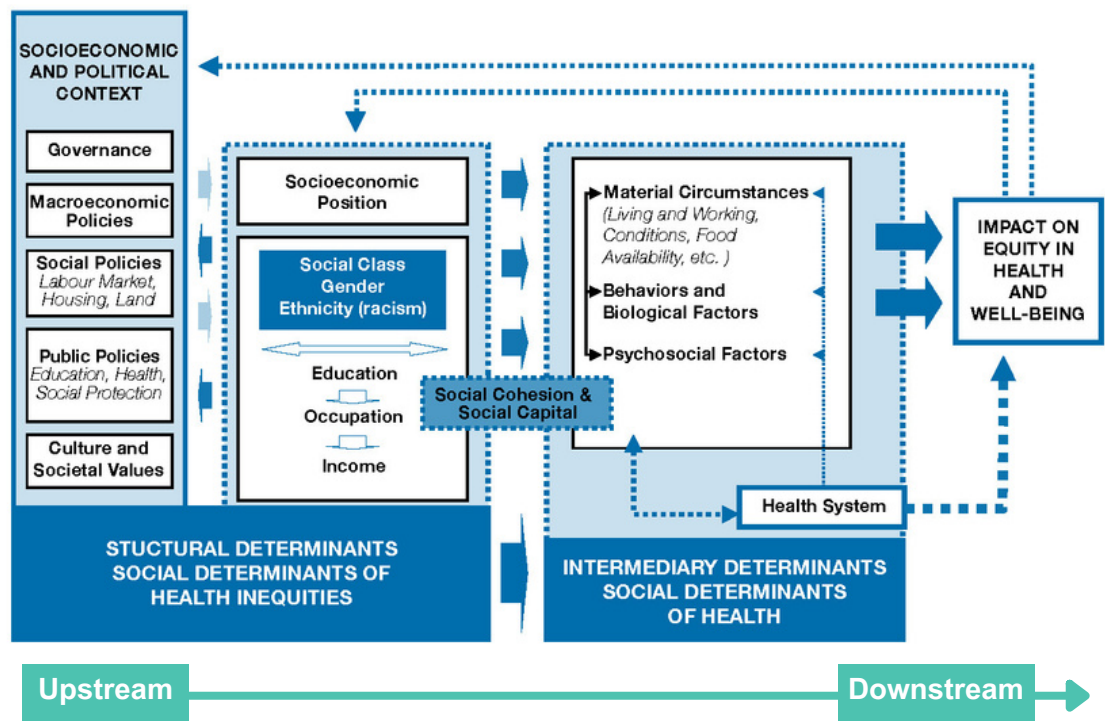
For example, the racial housing segregation in Milwaukee County can be attributed to numerous racially discriminatory housing policies that kept Black people from purchasing houses in certain neighborhoods (Lynch et al., 2021). This practice of **redlining** forced Black people to seek less suitable living conditions and these neighborhoods were continually deprived of resources, such as healthcare facilities, grocery stores, and safe outdoor spaces. Consequently, Black residents faced higher rates of chronic illnesses, including heart disease, diabetes, and obesity (Lee et al., 2022).

Approaching health as a social issue means recognizing how fairness and justice in society influence the conditions that drive health. The ultimate goal is for everyone to have equal opportunities to achieve optimal health, which requires **health equity** to be used as a guide in the creation of policies at all levels.

## WHO Conceptual Framework on Social Determinants of Health

Structural determinants of health are on the left side of the framework. They work upstream and impact the downstream intermediary determinants, like material circumstances, behaviors, and psychosocial factors, which ultimately impact health equity.

Milwaukee County was the first governing board in the nation to pass a resolution declaring racism as a public health crisis in 2019.



“Other issues selected (in the survey), such as gun violence, must be addressed at the root cause and encompass many of the other issues - such as improving economic equality and stability, affordable housing, education opportunity and affordable childcare.”

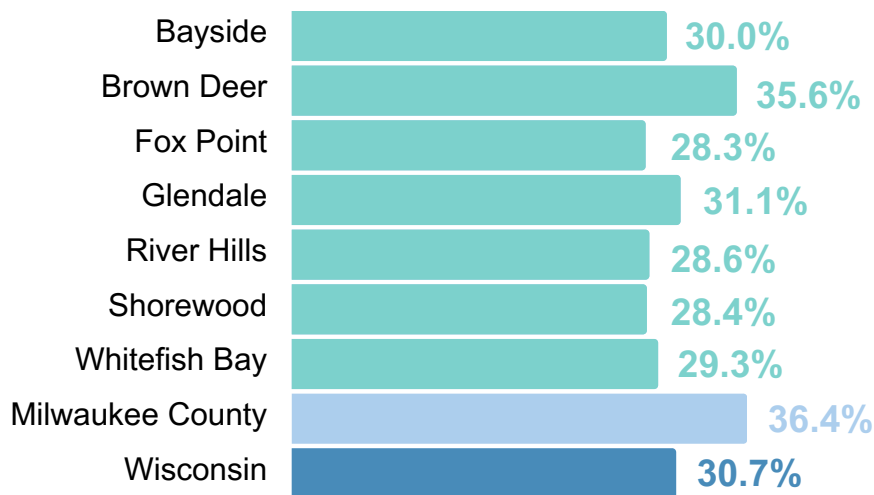
“Racism is a social determinant of health and impacts childhood development and inhibits people from obtaining their maximum health potential.”

# HEALTH BEHAVIORS

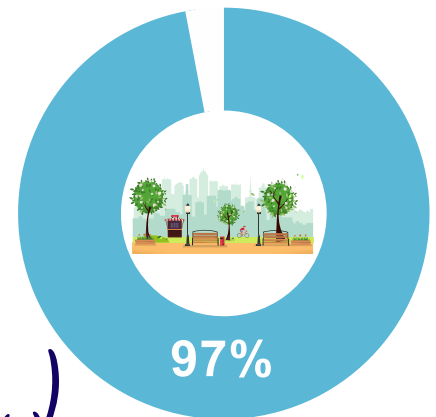
Health behaviors contribute about 30% to the health of an individual, but are often seen as very influential. Health behaviors are actions individuals take that can either positively or negatively impact their health. Oftentimes, health behaviors are dictated by where an individual lives, learns, and works. A few examples of health behaviors are substance use (alcohol or drugs), sexual activity, nutrition, or physical activity.

## Nutrition & Physical Activity

The seven North Shore communities have a smaller proportion of adults who are obese compared to all of Milwaukee County, 2020



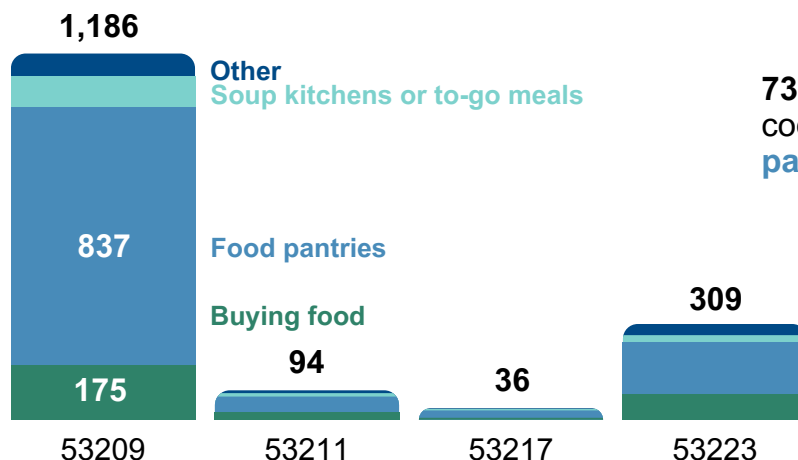
Source: WI Department of Health Services; CDC Places



97% of individuals in Milwaukee live in close proximity to park or recreational facility. People who live near parks are both physically and mentally healthier than those who do not.

Source: National Recreation and Park Association

In the 365 days from April 17, 2022 to April 18, 2023, 1,654 food-related calls were made to 211 in the North Shore zip codes (53209, 53211, 53217, 53223)



73% of calls were from the 53209 zip code, with 837 calls about food pantries and 175 about buying food.



Data Source: 2-1-1 Counts. Health Communication Impact, LLC.

\*Please note that the 53209, 53211, and 53223 zip codes are shared between the North Shore and the City of Milwaukee.

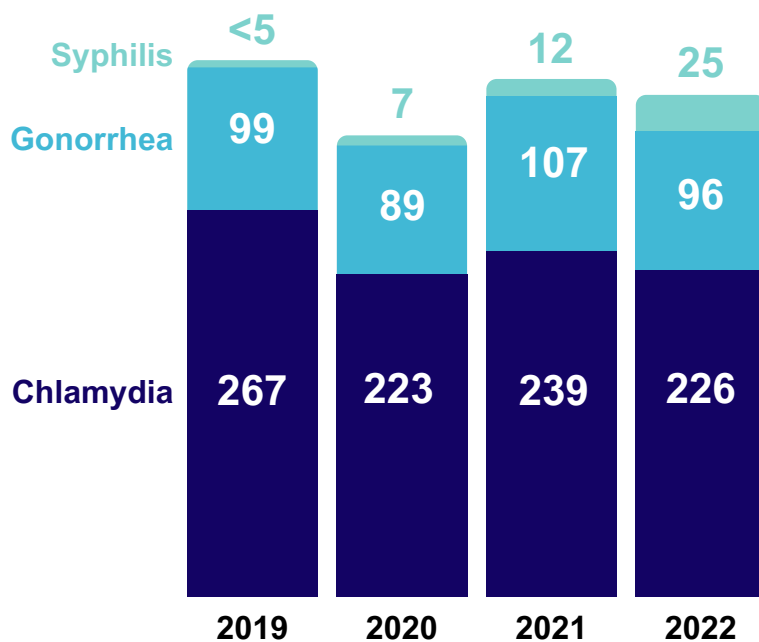


# Sexual & Reproductive Health

Engaging in unprotected sex and having multiple sexual partners throughout one's lifetime are considered high-risk sexual behaviors that can result in Sexually Transmitted Infections (STIs) and unintended pregnancies. These outcomes can have both immediate and long-term impacts on an individual's health, as well as on the economic and social well-being of their families and communities.

## STIs in the North Shore, by year

Confirmed and Probable cases of Chlamydia, Gonorrhea, Syphilis



Wisconsin Electronic Disease Surveillance System (WEDSS)

**Syphilis cases in the North Shore increased 108% from 2021 to 2022**

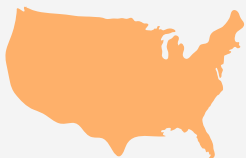


### SURVEY QUOTES

“Access to abortion as part of whole health.”

“Access to women's health care and abortion.”

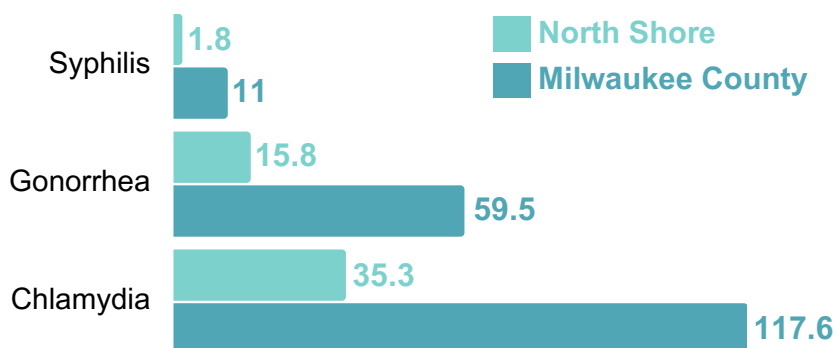
Quotes from survey respondents when asked about top 3 health issues impacting the North Shore



Surveillance data show that chlamydia, gonorrhea, and syphilis increased across the U.S. in 2021, with more than 2.5 million total cases reported. Of major concern is the increase in syphilis cases, with a **74% increase** in cases from 2017 (101,590) to 2021 (176,713).

## The North Shore has lower STI rates compared to all of Milwaukee County

Cases per 10,000 population in 2021



Data Sources: WI Department of Health Services; WEDSS  
2021 data was used for comparison because 2022 Milwaukee County data are not yet available.



“Probably sexual and reproductive health would be next up at the top (of critical health issues) because most people do need that or need to access that, and there's not much in Milwaukee in general, but especially in the North Shore area.”

# Substance Use

Substance use can be reported in many ways, but two common measures of reporting use is **current** and **lifetime**. Current use is us within the 30 days prior to the survey. Lifetime, also known as ever, is during the course of one's life.

## Tobacco

**Tobacco is changing.** Traditional cigarette use is decreasing while e-cigarette or vape use is increasing.

### E-vapor

also known as electronic vapor or vape, refers to the aerosol or vapor that is created by an electronic device when it heats up a liquid mixture, typically containing tobacco-derived nicotine. This aerosol or vapor is then inhaled by the user.

From 2019 to 2021, surveyed Wisconsin adults reported a **2.1% decrease in current smoker status.**

In 2021\*, **6.2% of surveyed Wisconsin adults reported current e-cigarette use.**

\*Question first recorded in 2021

Data source: Centers for Disease Control and Prevention. 2021. Behavioral Risk Factor Surveillance System Survey Data.

**95.2%**

survey in 2021\*, of Wisconsin adults reported ever trying **e-smoking.** (daily, some, or former).

**39.1%**

of Wisconsin adults reported a **lifetime smoking status,** in 2021 (daily, some, or former).

## Alcohol

In 2021, Wisconsin ranked **second in the nation for current alcohol use and binge drinking by adults.** (District of Columbia ranked first)

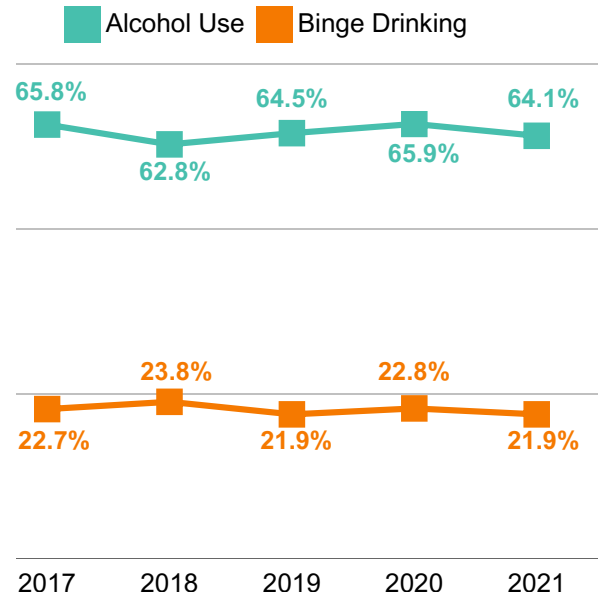
**64.1%** of Wisconsin adults reported current alcohol use (U.S. 54.5%)

**21.9%** of Wisconsin adults reported current binge drinking (U.S. 15.3%)

Compared to US adults, Wisconsin ranks **9.6% higher for alcohol use and 7% higher for binge drinking** (2021).

**Binge Drinking:** number of drinks per occasion, for adult males, five or more drinks, and adult women, four or more drinks.

Data source: Centers for Disease Control and Prevention. 2021. Behavioral Risk Factor Surveillance System Survey Data.



**Percent of current alcohol use, by Wisconsin adults, 2017-2021**

## Youth Substance Use



**Youth substance use is a big concern.**

-Survey Respondent

Wisconsin Youth Behavior Risk Survey responses for 2017, 2019 and 2021, show a downward trend in substance use:

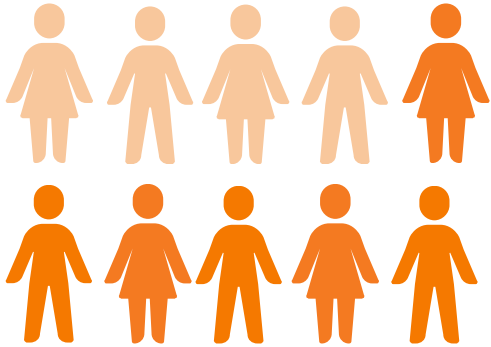
- 7.3% decline in current alcohol use
- 9.3% decline in current cigarette use
- 7.8% decline in lifetime tobacco use
- 7.2% decline in current e-vapor use
- 11.3% decline in lifetime marijuana use
- 10.4% decline in lifetime prescription pain medication misuse

Data source: Centers for Disease Control and Prevention. 2017, 2019, and 2021. Youth Risk Behavior Survey Data.

# Opioids

**Opioids are substances that bind to the body's opioid receptors, producing potent pain relief, sedation, and feelings of euphoria.**

While they can provide benefits, they also pose serious risks. Opiates specifically refer to natural opioids, such as heroin, morphine, and codeine. Opioids, by definition, include both natural and synthetic forms of opioids, including oxycodone, hydrocodone, fentanyl, and fentanyl derivatives.



**In early 2023, the DEA reported a 20% increase in seized pills containing fentanyl, with 6 out of 10 pills containing fentanyl, compared to 4 out of 10 pills in 2022.**

**Real vs. Fake Pills:** Spotting differences between real and fake pills is difficult. Many pills that **LOOK REAL** now contain **fentanyl**.



Data Source: Drug Enforcement Agency, Fake Pills Fact Sheet and One Pill Can Kill, 2023.

**In April 2023, 17 people in Milwaukee County, experienced substance use poisoning containing xylazine and fentanyl in a single weekend.**

Data Source: SW Healthcare Emergency Readiness Coalition, 2023.

**Fentanyl:** an extremely potent synthetic opioid, with a potency of 50-100 times that of morphine.

**Xylazine:** is used by veterinarians as a non-opioid sedative not approved for human use, often added to illicit opioids, such as fentanyl.

**Both images show a lethal dose of fentanyl; about 2mg.**



Photo sources: DEA, 2022 - 2023.

From 2020 to 2022\*, there were **16,152** suspected non-fatal opioid poisonings and **17,021** confirmed deaths from opioid poisonings in all of Milwaukee County (\*Subject to change, pending finalization of 2022 deaths).

Data Source: Milwaukee County Overdose Data, 2020-2022.

**OPIOID POISONING IS ON THE RISE, INCLUDING IN THE NORTH SHORE.**

**282** Number of **opioid related calls for service across all seven North Shore communities** (zip codes 53209, 53211, 53217, 53223) responded to by North Shore Fire Rescue, between 2020 and 2022\*.

**61.7%** **Of opioid related calls for service, were given naloxone**, responded to by North Shore Fire Rescue, among all seven communities (zip codes 53209, 53211, 53217, 53223), between 2020 and 2022\* (174/282). \*Subject to change, pending finalization of 2022 deaths.

Data sources: ODMAP, 2020-2022.

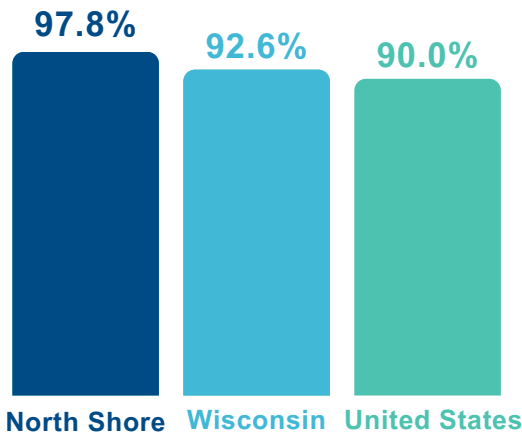


**NALOXONE** (also known as NARCAN) is a medication used to reverse the effects of opioids, and opioid poisoning.

# CLINICAL CARE

Clinical care encompasses all aspects of direct medical treatment and diagnostic procedures conducted on patients. The availability and accessibility of affordable and high-quality healthcare services play a crucial role in disease prevention, detection, and treatment. Factors that can impact access or quality of care include insurance status, cost, and health literacy.

## Only 2.2% of North Shore residents are uninsured



Source: United States Census Bureau, 2021; American Community Survey

## WHAT IS HEALTH LITERACY?

the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others (CDC; Santana, S., et. al.).

## RESEARCH SHOWS THAT PATIENTS WITH LOW HEALTH LITERACY...

1. Are more likely to visit an emergency room
2. Have more hospital stays
3. Are less likely to follow treatment plans
4. Have higher mortality rates

CDC Office of Readiness and Response

## Health Literacy Data Map

Data from the U.S. Census was used to estimate health literacy levels at the census tract level. Most of the North Shore communities are in the *proficient health literacy skills* group. Some census tracts in Brown Deer and Glendale fall in the *basic* and *intermediate* groups.

[Check out the map >](#)

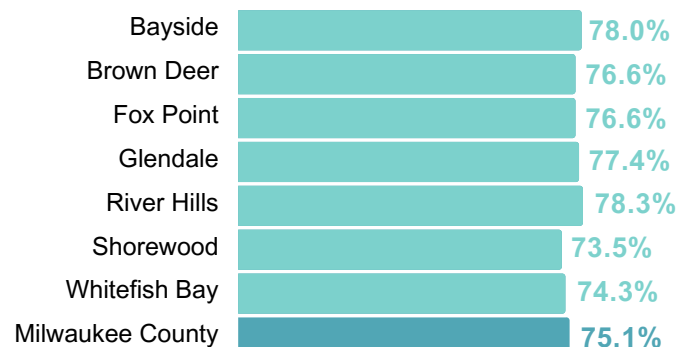
**44.3%** of survey respondents said access to **affordable healthcare** was in the top three community needs.

**39.3%** of survey respondents said access to **mental health services** was in the top three community needs.

**A majority of survey respondents with children have insurance for their children through their employer**

**226 (90.4%)** Employer Sponsored Insurance  
**19 (7.6%)** Medicaid/BadgerCare  
**10 (4.0%)** Out of Pocket/Cash  
**9 (3.6%)** Marketplace  
**9 (3.6%)** Private Insurance/Self pay  
**<5** Other

## Percentage of adults who had a routine checkup in the last year, 2020



Data Source: CDC PLACES

“



*"To me, a big issue is just access. Not knowing who to call, not knowing where to go, not knowing if your insurance covers it."*

”

# Access to Care



**68.5%**

of survey respondents with children reported they were able to access all necessary medical or clinical services for their children.

## North Shore top 3 most inaccessible services:

**1**

### Mental health services

“ I have had hard time finding mental health care for my children. Everywhere has a waiting list that is, at minimum, months long. ”



**17.5%**

of respondents



**2**

### Urgent care or sick visit

“ The largest barriers are both access and availability of providers in the North Shore. ”



**9.9%**

of respondents



**3**

### Dentist (cleaning or urgent care)

“ [People] wait until the last hour before they go to the dentist and dental health can lead to health issues too. ”



**9.4%**

of respondents



## Top 3 reasons or challenges in accessing care:

**1**

### Difficult to find or make appointments

“ A large barrier is lack of available appointments. ”



**13.0%**

of respondents



**2**

### Wait is too long

“ And when I call for an appointment, because I was a first time patient, they told me the earliest they could get me in was eight months in the future. ”



**9.3%**

of respondents



**3**

### Office has limited service hours

“ [Clinics] only have availability for day appointments, meaning I would have to take my child out of school. ”



**7.9%**

of respondents



# PHYSICAL ENVIRONMENT

The places people live, work, play, and pray can have a huge impact on their health.

## Air Quality



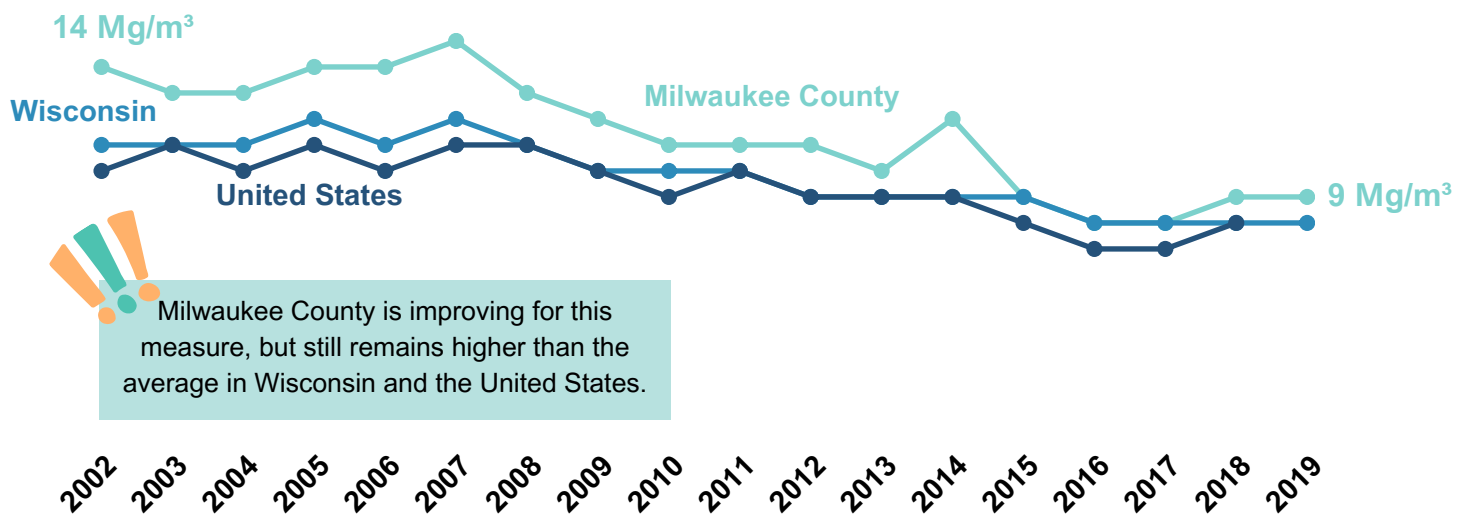
34.2%

of survey respondents selected environmental health as one of the top three health issues.

### Air Pollution: Particulate Matter

**Average daily density of fine particulate matter in micrograms per cubic meter (PM<sub>2.5</sub>).**

In Milwaukee County, an annual average of 9.0 micrograms per cubic meter of fine particulate matter was measured in the air in 2019. The Environmental Protection Agency (EPA) has primary annual average standards of 12.0 micrograms per cubic meter.



Milwaukee County is improving for this measure, but still remains higher than the average in Wisconsin and the United States.

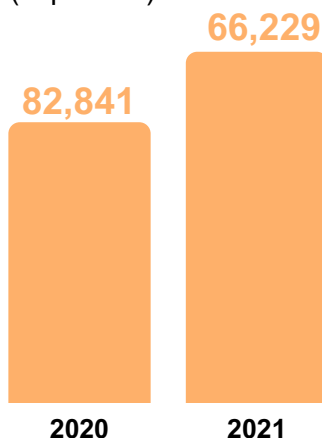
National Environmental Public Health Tracking Network Data Explorer (2022). Centers for Disease Control and Prevention (cdc.gov)



The American Lung Association (ALA) assigns grades A-F to counties (A=1; B=2; C=3; D=4; F=5), based on average annual number of days that particle pollution levels exceeded U.S. standards during the three-year measurement period. **In the measuring period between 2018 and 2020, Milwaukee County received an "A".**

Source: State of the Air. American Lung Association

### Recognized Carcinogens Released Into the Air Annually (in pounds)



**Overtime, the Milwaukee County value is increasing, but not significantly.** The quantity of reported and recognized carcinogens released into the air is based on fugitive and point source emissions of 179 recognized U.S. Occupational Safety and Health Administration (OSHA) carcinogens.

Release Chemical Report, TRI Explorer. United States Environmental Protection Agency

## Water Quality

### Drinking Water Violations

No community water system in Milwaukee County reported a health-based drinking water violation in 2020.

Envirofacts Data Service API. United States Environmental Protection Agency

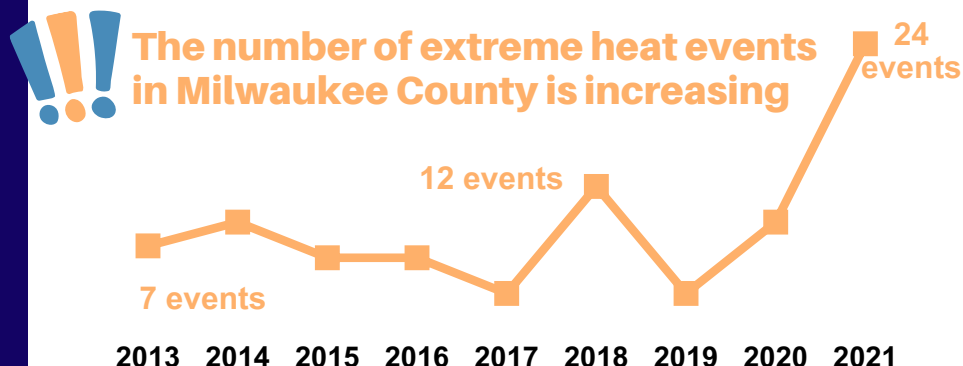


# Climate Change

Climate change refers to long-term shifts in temperature and weather patterns resulting from human activities, primarily the emission of greenhouse gases like carbon dioxide into the atmosphere. Climate change, together with other natural and human-made health stressors, can affect human health in several direct and indirect ways, including temperature extremes, air pollution, vector-borne diseases, allergens, and food security concerns (CDC, National Center for Environmental Health, 2022).

## Extreme Heat Events

Extreme heat events are a model-based estimate and defined by a minimum of **two consecutive days** in which the daily maximum temperature exceeded the 90th percentile threshold.



National Environmental Public Health Tracking Network Data Explorer (2022). Centers for Disease Control and Prevention (cdc.gov)



### KEY INFORMANT QUOTE

“There's got to be an expectation that there's gonna be something given back to reduce our carbon footprint and our concern about where our environments going, because that's huge. We're lucky where we are positioned... on a freshwater lake and in a place that... we're not going to get too hot, too cold right away, but we have to do things to make sure that that's taken care of...”

## One Health

One Health is an approach that recognizes the interdependence of human health, animal health, and environmental health. It emphasizes the importance of understanding and addressing the complex interactions between humans, animals, and the environment to protect and improve health for all.

Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), 2019

## Public Health Preparedness

Public health preparedness is of paramount importance for safeguarding the well-being and safety of communities in the face of various threats, including natural disasters, infectious disease outbreaks, and other emergencies. It involves developing and implementing strategies, policies, and practices to prevent, respond to, and recover from such events. Public health preparedness aims to enhance the capacity of healthcare systems, public health agencies, and communities to effectively address health-related challenges and protect populations.

Recognizing the connection between climate change, environmental health, and public health preparedness is essential for protecting communities' well-being. Climate change intensifies natural disasters, alters disease patterns, affects air quality and respiratory health, impacts food and water security, and leads to mental health challenges.

### Animal Health



### One Health

### Human Health



### Environmental Health



“

Environmental issues, including climate change, will become more pronounced and disproportionately harm those already suffering - low socioeconomic, chronically ill, people of color, children and the elderly.



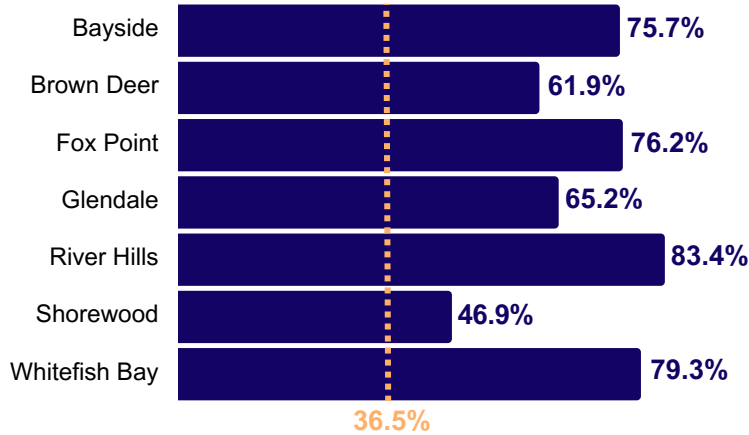
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# Neighborhood & Built Environment

The housing options and transit systems that shape our communities' built environment affect where we live and how we get from place to place. The choices we make about housing and transportation, and the opportunities underlying these choices, also affect our health.

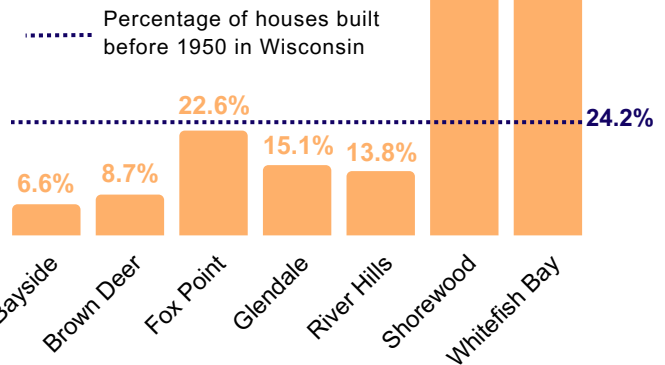
## Homeownership

..... City of Milwaukee Homeownership percentage



U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates

## Shorewood and Whitefish Bay have an old housing stock, with about two thirds of houses built before 1950



U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates

## Severe Housing Problems

**20.5%**  
in Milwaukee County

**13.6%**  
in Wisconsin

Severe housing problems measures the percentage of households with at least one of the following housing problems: overcrowding, high housing costs, lack of kitchen, or lack of plumbing facilities.

U.S. Census Bureau, 2021 American Community Survey

## Why does old housing stock matter?

Homes built before 1978 have a higher risk of containing lead-based paint. Lead poisoning can have serious impacts on cognitive development, behavior, and overall health. Although lead can be harmful to everyone, kids under age six are most vulnerable (WI DHS).

## Severe Housing Cost Burden

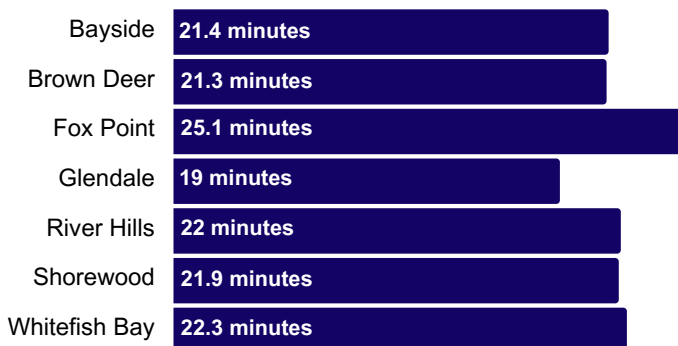
Severe housing cost burden measures the percentage of households that spend 50% or more of their household income on housing.

**17%**  
in Milwaukee County

**11%**  
in Wisconsin

U.S. Census Bureau, 2021 ACS

## Mean Travel Time to Work



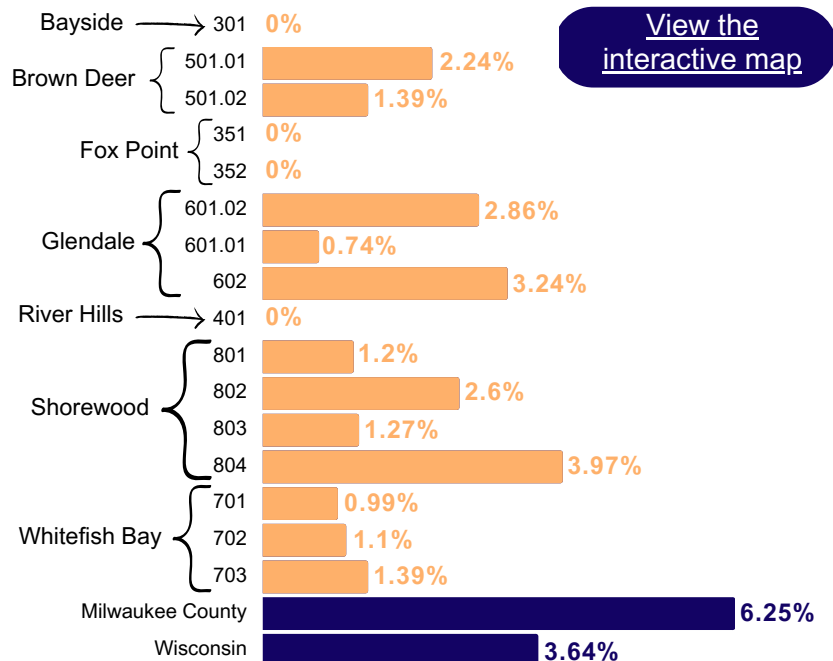
U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates

**72.8%** Workers who drive alone to work in the North Shore

U.S. Census Bureau, 2021 American Community Survey, 5-year Estimates

## Percent of children under 6 years old poisoned with blood lead levels of $\geq 5\mu\text{g/dL}$

The percent of children poisoned is calculated as the number of children poisoned divided by the number of children tested. Census tract data from 2018-2021.



[View the interactive map](#)

# ACKNOWLEDGEMENTS

We would like to express our heartfelt gratitude to the members of our community who participated in the survey that informed this report. Your feedback was invaluable in helping us understand the health needs and concerns of our community.

We would also like to extend our thanks to our community partners and stakeholders who participated in the key informant interviews. Your expertise and insights helped us to gain a deeper understanding of the health challenges and opportunities in our community.

Finally, we would like to thank all the individuals and organizations that supported us throughout this process. Your contributions have been critical in helping us to develop this report and identify strategies to improve the health and well-being of our community.

Thank you for your support and collaboration.

*Thank You*

## Public Health Strategist & Specialist Team

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*Assistance with completion of the CHA*

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## Additional Support Provided By:

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Shayla Rubbani



# MOVING FORWARD

We are excited to move from our Community Health Assessment (CHA) to our Community Health Improvement Plan (CHIP), as we continue to work towards improving the health of our community. The insights and data gathered through the CHA process provide our department with a solid foundation for identifying priority areas to focus on to improve health conditions and outcomes in the North Shore.

We will be using the findings from the CHA to select priority areas that will be outlined in our CHIP with accompanying goals and strategies for each priority. We recognize there are many factors that contribute to community health, and are committed to working collaboratively with community members, partners, and stakeholders to develop and implement effective initiatives, programs and policies.

As we move forward with the CHIP, we remain dedicated to our mission of improving population health, with achieving health equity being our overarching goal. We look forward to working with all stakeholders to achieve this goal, and we are grateful for the support and collaboration that has made this process possible.

## HOW TO GET INVOLVED

We will be hosting community conversations to get feedback from residents as we select priority areas. If you are interested in attending a future community conversation, [take this survey](#) or scan the accompanying QR code and you will be added to our communication list.



Take the Survey

### TWO LOCATIONS

#### **Brown Deer Office**

4800 W. Green Brook Dr.  
Brown Deer, WI 53223

#### **Shorewood Office**

2010 E. Shorewood Blvd  
Shorewood, WI 53211

### CONTACT US

**Main Phone Line:** (414) 371-2980

**Email:** [nshd@nshealthdept.org](mailto:nshd@nshealthdept.org)

**Website:** [www.nshealthdept.org](http://www.nshealthdept.org)

**Hours:** 8:00 a.m. to 4:30 p.m. Mon-Fri

### STAY CONNECTED



Subscribe to our quarterly newsletter



North Shore Health Department



NSHealthDept



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[www.nshealthdept.org](http://www.nshealthdept.org)

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## Key Informant Interviews

Primary data from our 2022 North Shore Community Health Assessment Key Informant Interviews conducted in-person, virtually via Teams, or over the phone. Interviews were transcribed and coded utilizing the TextIQ feature in Qualtrics.

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# APPENDICES

## Appendix A: Community Survey Materials

- Community Survey Questions
- Community Survey Results

## Appendix B: Key Informant Interview Materials

- Key Informant Interview Questions