



Health Profile Report

Public Health & Environmental Health

2025

Submitted July 2025

WAŽĄ HIGIRAWI (We care)

Ho-Chunk Nation-Chief Headdress

Contents

Comema	
Data details/use	ii-iv
Population statistics	1-4
HCN community profile	1
PRCDA HCN tribal communities	2 3
Social vulnerability	4
Hospitalization & ER	5-7
Causes of death	8-12
Ho-Chunk Nation	8–10
All Wisconsin Tribal	11-12
Socioeconomic factors	13-17
Education	14
Household income	15
Poverty Cost of living	16 17
Public health	18- 27
Public health summary	18-20
Cancer	21
Sexually transmitted infections	22
Influenza vaccine	23
Maternal & child health	24-27
Prenatal care	24
Low birth weight	25
Preterm birth Maternal smoking	26 27
Environmental health	28-41
Environmental health summary	28-32
Community drinking water	33-35
Lead	33
Copper	34
Nitrate	35
Private well water	36-39
Bacteria Nitrate	36 37
Manganese	38
pH level	39
Environmental health related	40-41
Blood lead levels	40
Asthma Poforonous / A prondix	41
References/Appendix Hospitalization/ER Definitions	v-xiv xiii
Acknowledgements	xiv
	/\\ T



Data details

Where does the data come from?

Multiple data sources are used in this report. This includes:



Internal data: From the Ho-Chunk Nation Department of Health and other Ho-Chunk Departments







HCN Office of Enrollment

HCN DOH Programs

NextGen
(HCN DOH Medical Records)



External data: From places outside the Ho-Chunk Nation, including state and federal sources











US Census

WI DNR

WI DHS

CDC

WEDSS

ii

When is the data from?

Because public data can lag, the data represented in this report reflects the latest, currently available information. For some measures, you may see multiple years, and an average of those years presented. This is commonly used in smaller populations or with public sources that use surveys and weigh responses to reflect a larger population, such as a county, state, or nation.

Other source details:

WI Department of Natural Resources (DNR): https://dnr.wisconsin.gov/
WI Department of Health Services (DHS): https://www.dhs.wisconsin.gov/
Centers for Disease Control & Prevention (CDC): https://www.cdc.gov/
WI Electronic Disease Surveillance System (WEDSS): Internal surveillance site for public health staff, infection control practitioners, clinical laboratories, clinics, & other disease reporters.





Data details cont.

Who is represented in the data?

Because of how tribal nations and tribal health departments can 1) receive/share information and 2) due to differences in funding reporting requirements, some data sources report on all tribal members, and others report on Ho-Chunk tribal members only. Additionally, some sources will only report on specific geographic areas, such as the state or specific counties. Be sure to keep this in mind when interpreting results and referencing the data source on each page.



Can I access/get a copy of the original data?

Depends! Anyone can access external public data sources and download data. However, some external sources can only be used by specific organizations and are not available to the public. Some internal Ho-Chunk Nation data may be available for an aggregated report upon request.



How do I use the data in this report?

There are many ways data can be used, ranging from individual, community, or organizational use. See the following page (iv) for more ideas on how this information can be applied in different settings.



Other Questions?

Please contact Sarah Reed-Thryselius

Ho-Chunk Nation Epidemiologist Sarah. Thryselius @ho-chunk.com



iii





Data uses

Community Knowledge & Empowerment

A key function of the HCN DOH is to provide information to our communities about their health, community conditions, and health outcomes to make informed decisions.

Education & Communication

Providing the most up-to-date health information to our communities, including health education and resources from the Public Health and Environmental Health divisions.

Accreditation

This includes standards such as analyzing data, providing health education, and conducting performance management.

Programming & Service Development

Measures highlight gaps and opportunities for improvement in community conditions and health outcomes. The data pinpoints where programs/services could focus on.

Grant Proposals

Use Ho-Chunk Nation data to support grant proposals and explain your "so what."

Community Health Assessment

Provides additional community data to deepen the understanding of community conditions and outcomes.

Policy Development

Identifies needs and gaps in the community. Data could highlight the need for a policy.

Research

Use data to identify a need or a question.

Media Stories

Support and strengthen stories with data, including articles, social media posts, interviews, and more.

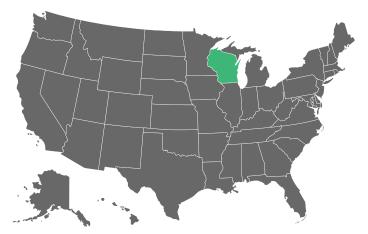
iv







Our Ho-Chunk Tribal members live all over the world. Population estimates are helpful to understand age, sex, and geographical location to predict service demand and resource allocation. The numbers below reflect enrolled Ho-Chunk Tribal members in 2023.



7,730 5,361 members in mationwide Wisconsin

Sex (nationwide)

51% female 49% male

By age	All HCN Tribal in Wisconsin

0-4 years 92 **5-11** years 468 **12-17** years 570 **18-24 years** 668 **25-34 years** 975 **35-44 years** 857 **45-59** years 956 60+ years 775

DYK? Ho-Chunk people (Hocaks/Ho-Chungra) have traditional lands from Wisconsin, Minnesota, Iowa, Missouri, and Illinois.

Among Wisconsin Ho-Chunk Tribal members, about 36% are considered vulnerable. This includes Elders and youth.

These groups are more susceptible to health conditions & community impacts because of their age.

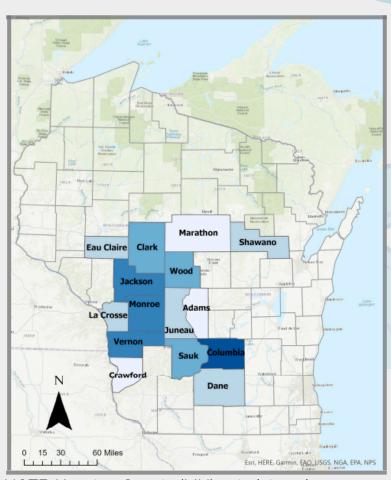
HCN Community Profile: HCN tribal enrollment, October 2023 **Source:** HCN Office of Enrollment

Years displayed: 2023



Purchased Referred Care Delivery Area

In addition to national and state populations, Indian Health Services (IHS) assigns designated **Purchased Referred Care Delivery Areas** (PRCDA) to tribes; these are "counties that include all or part of an American Indian or Alaska Native reservation or have a common boundary with a federally recognized tribal land.... it is a geographic area within which IHS makes purchased/referred care available to members of an identified Indian community who reside in the area....36 states have at least one PRCDA-designated county (CDC, 2022)." The Ho-Chunk Nation Department of Health often reports on national, state, and PRCDA populations due to funding and program requirements.



NOTE: Houston County (MN) not pictured

There are **15 counties in Wisconsin** and **one county in Minnesota** which make up the **HCN DOH PRCDA area**:

- Adams
- Clark
- Columbia
- Crawford
- Dane
- Fau Claire
- Jackson
- Juneau

- La Crosse
- Marathon
- Monroe
- Sauk
- Shawano
- Vernon
- Wood

Houston



4,165

enrolled members in PRCDA area

78%

% of enrolled WI members living in PRCDA area

HCN Community Profile: HCN tribal enrollment, October 2023 **Source:** HCN Office of Enrollment

Years displayed: 2023

7





Ho-Chunk Nation Tribal Communities

Ho-Chunk communities are located on Nation Trust land. Ho-Chunk Tribal members and their families are eligible for housing in these designated places, which span seven Wisconsin counties. The Environmental Health (EH) Division oversees certain services in these communities and on other trust land properties, including their water systems.



Community locations (by county)

Clark

• Dells Dam

Jackson

- Sand Pillow
- Indian Mission

Juneau

- Waksik Ma
- Indian Heights
- Timber Run

Sauk

- Ho-Chunk Village
- Winnebago Heights

Shawano

- Potch Chee Nunk
- Ho-Chunk Village

Monroe

Blue Wing

Wood

Chakh-Hah-Chee

Map: Courtesy of HCN GIS division

DYK? The EH division ensures safe potable water sources for its customers by maintaining compliance with all applicable Federal and State Regulations. These community water systems serve approximately 10, 562 people, including residents, employees, and visitors.

The division shares full water quality reports (Consumer Confidence Reports) on their division webpage.





Community Conditions

All persons **HCN DOH PRCDA**

Social vulnerability is the potential negative effects and outcomes on communities caused by external stressors or events, including natural disasters or human-made events. Certain experiences and identities like poverty, transportation barriers, or living with a disability can place communities at a higher vulnerability to such stressors or events (CDC/ATSDR, 2022).

The Social Vulnerability Index (SVI) looks at 16 social factors, categorized into four

main themes:



Socioeconomic status



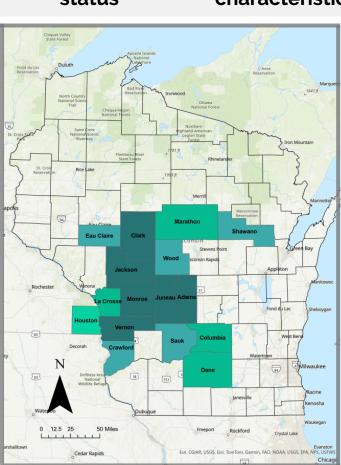
Household characteristics



Racial/Ethnic identity



Housing type/ transportation



Social Vulnerability level (



All persons (Service area)

All persons (Minnesota)

All persons (Wisconsin)

Medium-high

Medium

Medium

Community conditions: Social Vulnerability Index Source: CDC/ATSDR SVI Years displayed: 2022

The majority of counties have a higher social vulnerability rating. These counties are mostly located in the center of the map.



11 counties have a high or medium-high rating.



4 counties have a low-medium rating



1 county has a low rating.



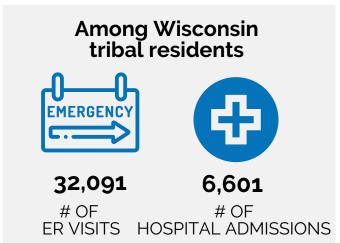


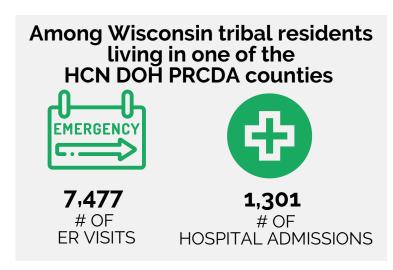


Hospitalization & ER Visits

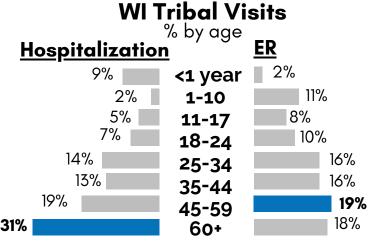
Hospitalization and emergency room (ER) visit data are captured for Wisconsin tribal residents who are treated in Wisconsin, Minnesota, or Iowa. The data below reflects the primary cause of admission and number of visits, not patient counts. Because someone may be seen multiple times, each encounter counts as a new visit.

During 2023....





Wisconsin tribal ER visits made up about 1.7% of all statewide ER visits and 1.2% of all hospitalization admissions. The 2020 Census estimates report that about 1.1% of Wisconsin residents are tribal (alone).



Hospitalization & ER Visits: Hospital discharge visits (inpatient and ER) for AI/AN; principal diagnosis

Source: WI DHS Office of Health Informatics

Years displayed: 2023



WAŽĄ HIGIRAWI (We care)



5

Hospitalization & ER Visits cont.

This table reports the primary cause of ER visit for Wisconsin tribal residents who live within the HCN DOH PRCDA during 2023. It also includes such residents who were treated in Minnesota and Iowa. Because someone may be seen multiple times, each encounter counts as a new visit.

TOTAL ER VISITS	# of visits
Total ER visits	7,477

AGE	
Less than 1 year	108
1-10 years	822
11-17 years	562
18-24 years	840
25-34 years	1,197
35-44 years	1,223
45-59 years	1,321
60+ years	1,404

NOTE: For ICD-10 CM conditions included in each primary health outcome group, please view pages 6-7 and Hospitalization & ER Data Definitions on reference page xiii.

DYK? Unintentional accidents/injuries made up about 17% of all ER visits

DIABETES



100

SELECTED PRIMARY CAUSES	
ACCIDENTS/INJURIES (unintentional)	1,263
Broken bones	195
Poisonings (any cause)	77
MENTAL/BEHAVIORAL HEALTH	244
Conditions/disorders	124
Alcohol/drug dependence	63
Suicide (intent and self-harm)	57
INFECTIOUS/PARASITIC DISEASES	196
ALCOHOL & DRUG USE	157
Chronic liver disease/cirrhosis	8
COVID-19	124

HEART DISEASE
Coronary Artery Disease 31
PNEUMONIA & INFLUENZA 79
ASTHMA 69
COPD 42
CEREBROVASCULAR DISEASE 7
CANCER (all types) 4

<u>Alcohol and drug use:</u> does not include "dependence."

Infectious/parasitic diseases: including sexually transmitted infections (STIs), other communicable diseases like salmonella, measles, or hepatitis. Does not include COVID-19, pneumonia, or influenza

<u>COPD:</u> Chronic Obstructive Pulmonary Disorder

Hospitalization & ER Visits: Hospital discharge visits (inpatient and ER) for AI/AN); principal diagnosis Source: WI DHS Office of Health Informatics Years displayed: 2023





Hospitalization & ER Visits cont.

This table reports the **primary cause of hospitalization admission** for **Wisconsin tribal residents who live within the HCN DOH PRCDA during 2023**. It also includes such residents who were treated in Minnesota and Iowa. Because someone may be seen multiple times, each encounter counts as a new admission.

TOTAL HOSPITALIZATIONS # of admissions Total hospitalizations 1,301

AGE Less than 1 year 93 1-10 years 13 11-17 years 42 18-24 years 131 25-34 years 200 183 35-44 years 218 45-59 years 60+ years 421

DYK? Mental/behavioral health outcomes made up

CANCER (all types)

Continued from page 6:

about 14% of all inpatient

CEREBROVASCULAR DISEASE

PNEUMONIA & INFLUENZA

reference page xiii.

admissions.

COVID-19

ASTHMA

COPD

3

NOTE: For ICD-10 CM conditions included in each

primary health outcome group, please view pages 6-7 and Hospitalization & ER Data Definitions on



27

20

17

11

5

2

SELECTED PRIMARY CAUSES MENTAL/BEHAVIORAL HEALTH 184 Conditions/disorders 112 Alcohol/drug dependence 69 Suicide (intent and self-harm) 3 INFECTIOUS/PARASITIC DISEASES 141 **HEART DISEASE** 99 Coronary Artery Disease 3 **ACCIDENTS/INJURIES (unintentional)** 91 Broken bones 33

DIABETES 68
ALCOHOL & DRUG USE 33
Chronic liver disease/cirrhosis 12

<u>Cerebrovascular disease:</u> including stroke, brain bleed, or brain aneurysm <u>Asthma</u>: Not related to COPD

Hospitalization & ER Visits: Hospital discharge visits (inpatient and ER) for AI/AN); principal diagnosis Source: WI DHS Office of Health Informatics

Poisoning (any cause)

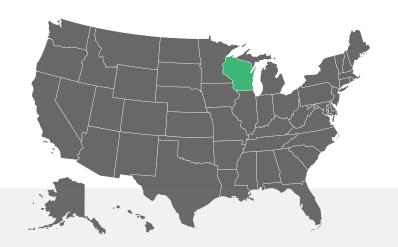
Years displayed: 2023







The Ho-Chunk Nation Office of Enrollment records tribal member death statistics and receives cause of death information when shared by family members or funeral homes on behalf of families. The numbers below reflect death statistics for enrolled Ho-Chunk Tribal members from 2019-2023.



442 deaths nationwide

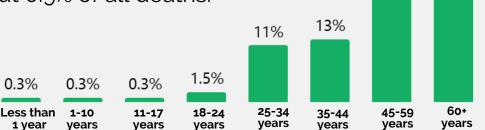
326deaths
in Wisconsin*

52%

*About 82% of WI deaths live within one of the PRCDA counties

22%

The largest percentage of Ho-Chunk deaths among Wisconsin tribal members from 2019-2023 occurred among Elders. Tribal youth accounted for about 0.9% of all deaths.



HCN Death Statistics: Deceased population count

Source: HCN Office of Enrollment Years displayed: 2010-2023

Years displayed: 2019-2023







Ho-Chunk Nation Death Statistics cont.

The major cause of death is determined by the underlying cause of death reported on an individual's death certificate. Note, the information below describes the major cause of death for records that the Ho-Chunk Nation Office of Enrollment received for 2019-2023.

About 54% of WI resident deaths had major cause of death information. For deaths outside of WI in the USA, 30% of deaths had this information.

The top five causes of death of Wisconsin Ho-Chunk Tribal members were:

- **Diseases of the heart.** This includes things like coronary artery disease, irregular heartbeats, heart failure, and heart defects someone is born with.
- Alcohol and drug use as a contributing cause. This includes long-term liver disease, cirrhosis of the liver, drug overdoses, and drug misuse.
- Malignant neoplasms. This includes all types of cancer.
- **Accidents.** This includes unintentional injuries like car accidents, drownings, poisonings, falls, and fires.
- **COVID-19.** This includes complications from the virus or exacerbations of previous underlying health conditions.

Major causes of death: Underlying cause of death- Enrolled HCN tribal, all ages **Source:** HCN Office of Enrollment

Years displayed: 2019-2023









Ho-Chunk Nation Death Statistics cont.

This table reports Wisconsin Ho-Chunk Nation tribal resident cause of death data during 2019-2023, regardless of where the death occurred.

TOTAL DEATHS	# of deaths
Total deaths	326
AGE	
1 11 .	

AGE	
Less than 1 year	1
1-10 years	1
11-17 years	1
18-24 years	5
25-34 years	37
35-44 years	41
45-59 years	72
60+ years	168

,	
SELECTED UNDERLYING CAUSES	
HEART DISEASE	34
Coronary Artery Disease	9
ALCOHOL AND DRUG USE	31
Chronic liver disease/cirrhosis	9
Other drugs	11
CANCER (all types)	17
Trachea/Bronchus/Lung	6
Pancreas	3
ACCIDENTS/INJURIES	14
Motor vehicle	9
Gun shot wound	2



Note: This information displays select major cause of death information for individuals whose death certificate was received by the Office of Enrollment. Of the 326 deaths reported during 2019-2023, 175 had a cause of death on record.

Major causes of death: Underlying cause of death- Enrolled HCN tribal, all ages

Source: HČN Office of Enrollment **Years displayed:** 2019-2023

COVID-19	11
DIABETES	9
CEREBROVASCULAR DISEASE	9
DEMENTIA	8
Alzheimer's	4
SUICIDE	7
INFECTIOUS/PARASITIC DISEASES	7
PNEUMONIA AND INFLUENZA	6
CHRONIC KIDNEY DISEASE	5

<u>Chronic kidney disease:</u> including causes from things like diabetes, high blood pressure, chronic kidney infections or inflammation

<u>Cerebrovascular disease:</u> including stroke, brain bleed, brain aneurysm, or carotid artery disease

Infectious/parasitic diseases: including sexually transmitted infections (STIs), other communicable diseases like salmonella, measles, or hepatitis





WI Tribal Death Statistics

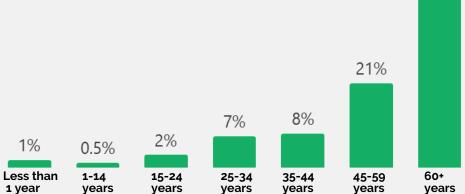
All tribal

From 2019-2023, a total of **2,813 deaths** were recorded for all tribal Wisconsin residents, regardless of tribal affiliation. The **top five causes of death** were:

60%

- **Malignant neoplasms.** This includes all types of cancer.
- **Diseases of the heart.** This includes things like coronary artery disease, irregular heartbeats, heart failure, and heart defects someone is born with.
- **3** Accidents. This includes unintentional injuries like car accidents, drownings, poisonings, falls, and fires.
- **COVID-19.** This includes complications from the virus or exacerbations of previous underlying health conditions.
- **Diabetes.** This includes Type 1 (due to genetics) and Type 2 (due to behavioral and lifestyle choices).

The **largest percentage** of **deaths** among tribal Wisconsin residents from 2019-2023 occurred in **Elders**.



Major causes of death: Underlying cause of death for WI AI/AN, all ages

Source: CDC Wonder **Years displayed**: 2019-2023



WAŽĄ HIGIRAWI (We care)



11

WI Tribal Death Statistics cont.

of deaths

This table reports Wisconsin Tribal resident cause-of-death data for the years 2019-2023, regardless of where the death occurred.

rotal dea	itns	2,813
AGE		
Less than	n 1 year	33
1-14 years	S	14
15-24 yea	ars	70
25-34 yea	ars	203
35-44 yea	ars	223
45-59 yea	ars	583
60+ years	5	1,687

SELECTED UNDERLYING CAUSES	
CANCER (all types)	437
Trachea/Bronchus/Lung	129
Colorectal	35
Breast	25
HEART DISEASE	431
Coronary Artery Disease	286
ACCIDENTS/INJURIES	428
Drug misuse	122
Motor vehicle	63
Falls	40
COVID-19	176
DIABETES	164

Major causes of death: Underlying cause of death for WI

AI/AN, all ages **Source:** CDC Wonder

TOTAL DEATHS

Years displayed: 2019-2023



DYK? The top causes of death for youth include:



Conditions originating in the perinatal period*



Accidents

12

*occurring before birth up to 28 days after birth

CHRONIC LIVER DISEASE	157
Cirrhosis	35
LOWER RESPIRATORY DISEASE	110
CEREBROVASCULAR DISEASE	94
SUICIDE	73
INFECTIOUS/PARASITIC DISEASES	45
ALZHEIMERS	37
PNEUMONIA AND INFLUENZA	26

<u>Lower respiratory</u>: including chronic obstructive pulmonary disease (COPD, asthma, bronchitis, or emphysema

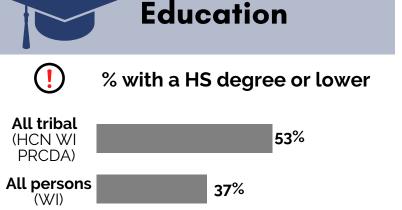
<u>Cerebrovascular disease:</u> including stroke, brain bleed, brain aneurysm, or carotid artery disease

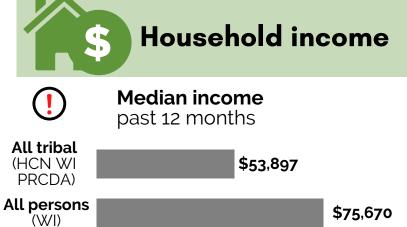
Infectious/parasitic diseases: including sexually transmitted infections (STIs), other communicable diseases like salmonella, measles, or hepatitis



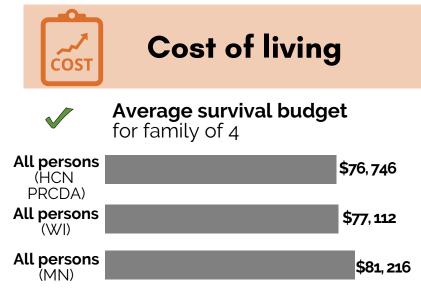
All Tribal: Socioeconomic Factors

Socioeconomic (SES) status is often measured by education level, income, occupation, or wealth. It is tied to health behaviors, resources, and community conditions. SES impacts your health status because it influences your access to resources and the types of barriers you might encounter (Phelan, Link, & Tehranifar, 2010).



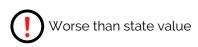


Poverty % below poverty level All tribal (HCN WI PRCDA) All persons (WI) 11%





Same or better than state value





13



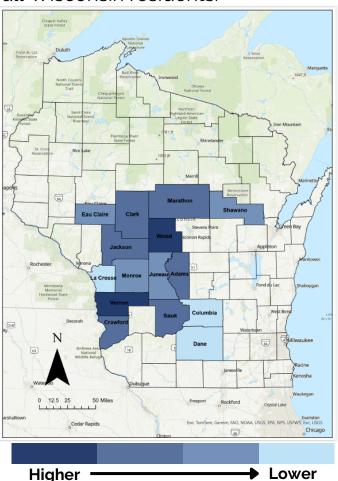


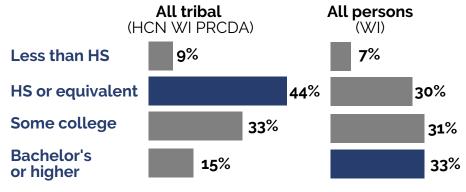


WI HCN DOH PRCDA

Of those aged 25 years and older, HS or equivalent has the greatest educational attainment percentage among tribal groups. About 53% of WI tribal members living in the PRCDA counties hold high school degree or lower, compared to 37% of

all Wisconsin residents.





Education: Educational attainment those 25 years and older **Source:** American Community Survey

Years displayed: 2019-2023

About 73% of the counties have a higher percentage of tribal members (50% or more) with a **HS degree/equivalent or less**.

% of tribal population with a HS degree or less



39-56%

Eau Claire. Juneau, Monroe Shawano



Adams, Clark Crawford, Jackson, 36-38% Marathon, Sauk

Columbia, Dane, La Crosse

DYK? Of tribal members living in the PRCDA counties, females have higher educational levels when compared to males.



Bachelor's or higher:

Female 17%

Male 12%











Household income

All tribal WI HCN DOH PRCDA*

*excludes Crawford, Eau Claire, Marathon, Sauk & Vernon County due to limited sampling

Tribal PRCDA household incomes are \$1,019 lower when compared to all WI tribal members but \$14, 316 less when compared to all persons in those same counties. Wisconsin tribal households make \$20,754 less when compared to all Wisconsin residents.





Household income: Median household income in the past 12 months (in 2023 inflated dollars) **Source:** American Community Survey

Years displayed: 2019-2023

Among Wisconsin Tribal Residents:

Lowest household income Wood County: \$43,333

Highest household income Columbia County: \$94,000

Greatest difference

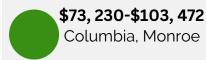


Tribal: \$29,583 **All persons:** \$65,150

among tribal and all persons Juneau County: \$35,567

About 45% of the counties have a median household income lower than the HCN WI PRCDA median household value (\$53, 897).

Median household income





\$29, 584-\$52, 896 Jackson, La Crosse, Shawano, Wood





\$29, 583 Juneau

15

Higher Lower

94



(B)



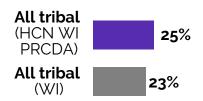


Cloquet Valley State Forest

94)

All tribal WI HCN DOH PRCDA

There are 14% more tribal members in the PRCDA and 12% more tribal members statewide living in poverty compared to all Wisconsin residents. The Healthy People 2030 goal is to reduce the percentage of persons living in poverty down to 8%.





Poverty: Poverty status in the past 12 months **Source:** American Community Survey

Years displayed: 2019-2023



Lowest % below poverty Columbia: 8%

Highest % below poverty Crawford: 50%

Greatest difference among tribal and all persons

Tribal: 48% All persons: 9%

Sauk: 39%

About 47% of the counties have a poverty rate higher than the HCN WI PRCDA poverty percentage (25%).

% of tribal population below poverty level









Higher Lower

16



Cedar Rapids

WAŽĄ HIGIRAWI (We care)

Chicago





Cost of Living

All persons HCN DOH PRCDA

Households who meet the definition of ALICE (Asset Limited, Income Constrained, Employed) earn too much money to qualify as "poor" (being below the Federal Poverty Level) but are still unable to cover basic household expenses. In 2022, it was estimated nearly 42% of US households were struggling to afford basic needs- this includes those below the Federal Poverty Level and those who are ALICE.

The data below reflects for a family of four in childcare.

94)



All persons (HCN PRCDA)

\$76,746

Cost of living: ALICE (Asset Limited, Income Constrained,

Employed)

Source: United for ALICE Years displayed: 2023

Among Wisconsin/Minnesotan Residents:

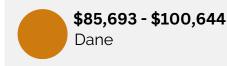
Lowest % ALICE + Poverty

WI: Waukesha and Washington, 26% MN: Cook, 27%

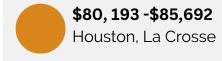
Highest % ALICE + Poverty WI: Menominee, 45% MN: Mahnomen, 54%

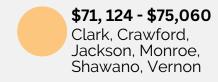
About 31% of the counties have an ALICE budget higher than the HCN PRCDA average value (\$76, 746).

ALICE budget (for a family of four)



\$76,061 - \$80,192 Adams, Columbia, Eau Claire, Juneau, Marathon, Wood





Lower Higher

Esri, CGIAR, USGS, Esri, To



(1)

Eau Claire





The Public Health Division works to prevent illness and improve the community's health in many ways. This includes stopping health problems before they start, identifying them early, and supporting people in managing ongoing conditions. The team focuses on preventing and monitoring both infectious and chronic diseases, connecting people to services, and meeting national standards through Public Health Accreditation. Public health staff also provide education, hands-on skills, and helpful resources to support healthier choices and stronger communities, with a strong focus on prevention at every stage of life.

Available services to community members include:



Family Spirit Program

Prevention-based, family health program from pregnancy to 3 years **Jamie Decorah**

715-253-4400 ext. 33142



Communicable Disease Prevention & Follow-up

Home-test reporting, communicable disease follow up, and STI prevention **Ronelle McKernan**

715-896-2570



Maternal and Child Health

Care/education to parents and children, Partners in Parenting, Safe Sleep Cribs for Kids, First Breath, community referrals, childhood vaccines

Baraboo-Irina Clendenning 608-355-1240 ext. 35620

Black River Falls- Natasha Stoker 715- 284-9851 ext. 35322



Breastfeeding Support

Support with answers about latching, feeding difficulties, return to work, low milk supply, storing breastmilk, and more

Irina Clendenning 608-355-1240 ext. 35620



Child Passenger Safety Technicians

CHRs provide education on proper child passenger safety & car seats

Wittenberg- Claudia Yaeger 715-253-2897 ext. 33140

Nekoosa- Lena Walker 715-886-5444 ext. 38753

Baraboo, Madison-Wendy Lonetree 608-355-1240 ext. 35600

Black River Falls, Tomah, La Crosse- Macy Emery 715-284-9851 ext. 350323



Resources, Programs, & Referrals

Connection to local, tribal, county, and state resources to meet your health needs.

Jamie Decorah

715-253-4400 ext. 33142



Other Services (available periodically)

Summer block parties, monthly prevention programs, and tribal health assessments

*Service availability dependent upon funding

Kandyce Dunlap

715-284-9851 ext. 35042







All Tribal: Public Health Outcomes

The following section describes some public health outcomes like cancer, sexually transmitted infections (STIs), and vaccines. Reported STIs include syphilis, chlamydia, and gonorrhea.



Cancer



Rate of new cases (per 100,000)

All tribal (WI) 534

All persons (WI) 466



Sexually transmitted infections

Rate of new cases (per 100,000)

HCN tribal (HCN WI PRCDA)

336

All persons (WI)

573



Vaccines



Influenza



% with at least one dose

HCN tribal (HCN DOH PRCDA)

All persons

All persons (WI) 38%





Same or better than state value



Worse than state value



Data suppressed or not available

19



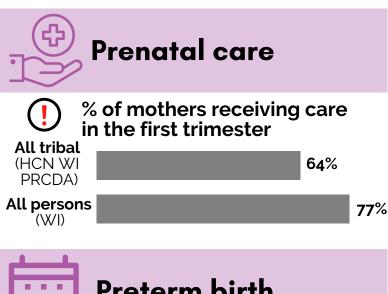


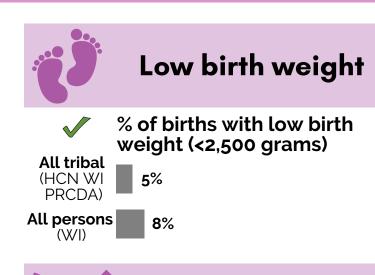
All Tribal: Public Health Outcomes cont.

The following section describes various pregnancy health measures, including maternal and infant characteristics.



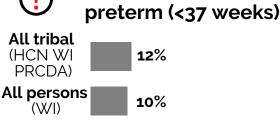
Maternal & Child Health

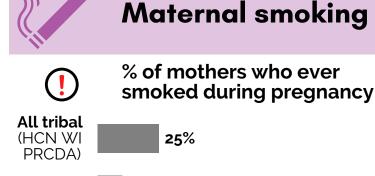




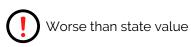
Preterm birth

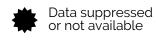
% of births considered











7%



20



WAŽĄ HIGIRAWI (We care)

All persons

(|X|)

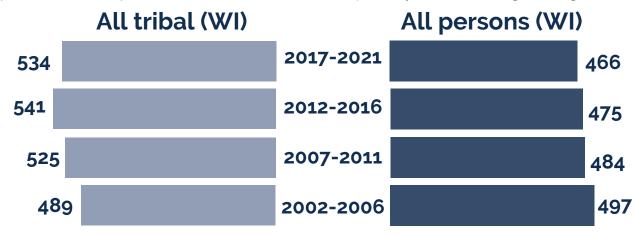




All tribal

This includes all types of cancers, at any stage. when newly diagnosed by year of diagnosis for Wisconsin residents (incidence). Increases in new cancer cases may be due to increased burden (exposure to risk factors like air or water pollution, smoking/alcohol use, tanning bed use, poor diet/exercise, and more) or better ways to detect cancer like increased screening, improved healthcare access, or technology advancements.

The rates below show age-adjusted rates per 100,000 people. When comparing two or more populations, it is important to age-adjust rates to account for differences in age distribution among populations. Meaning, age has a significant influence on the likelihood of developing cancer. So, populations with a greater proportion of older persons would have a higher cancer rate. By using an age-adjusted rate, the population comparison becomes more equal by accounting for age differences.



Top two cancers with the highest aged-adjusted rate in Wisconsin, 2017-2021

All tribal

- Lung and bronchus: 92 cases per 100,000
- **Pemale breast:** 77 cases per 100,000

All persons Female breast:

- **1** Female breast: 70 cases per 100,000
- Prostate: 58 cases per 100,000

Cancer (new cases): Cancer incidence age-adjusted rate Source: WI DHS Wisconsin Interactive Statistics on Health Years displayed: 2002-2021



WAŽĄ HIGIRAWI (We care)



21



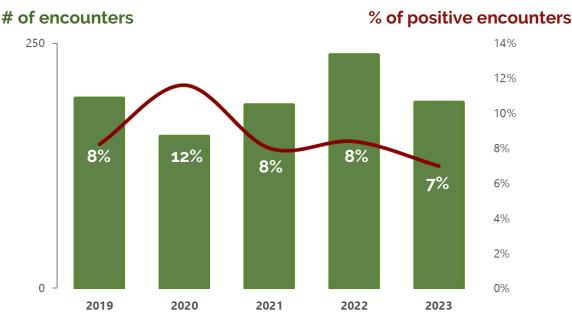
Sexually transmitted infections

HCN tribal WI HCN DOH PRCDA

Sexually transmitted infections (STIs) are infections spread by vaginal, oral, or anal sex. If left untreated, STIs can increase your risk of getting other STIs (like HIV), infertility, organ damage, and certain types of cancer. Using protection (like condoms) and regular screening are the best ways to prevent and stop the spread of STIs (Mayo Clinic, 2022.) In addition, vaccines are available to prevent Human papillomavirus (HPV), Hepatitis A, and Hepatitis B (CDC, 2023). The rates below reflect per 100,000 persons. Although there are several STIs, this section focuses on common ones like Chlamydia, Gonorrhea, and Syphilis.



The data below includes **Ho-Chunk Tribal members living within a HCN DOH PRCDA county** who had received a positive STI result, **administered by the HCN DOH** or **administered somewhere else**, **and their lab result information was forwarded to us**.



Sexually transmitted infections: Chlamydia, Gonorrhea, and Syphilis **Source:** HCN DOH NextGen; STIs in WI 2022 Reported Cases

Years displayed: 2019-2023; 2023

The 5-year average of positive HCN tribal STI patient encounters is 9%. Meaning, 9% of all HCN patients tested for these selected STIs were positive. The highest percentage was in 2020 (12%) but this may be due to less testing.

22









Vaccines



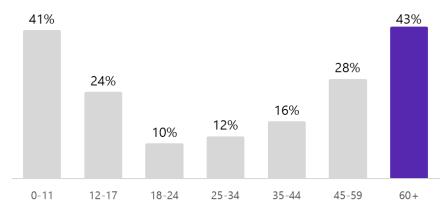
Influenza

HCN tribal HCN DOH PRCDA

Influenza (flu) is an illness caused by influenza viruses. The flu is considered a seasonal illness, occurring yearly and during similar months. The flu can result in mild to severe illness, including hospitalization or death. Elders, those with an underlying health condition, and pregnant women are at an increased risk for severe outcomes (WI DHS, 2024). The best way to prevent flu is to get your yearly flu vaccine. **The data below reflects at least one flu vaccine dose**.



The graph below reflects the percentage of PRCDA Ho-Chunk Tribal members by age who had received at least one flu vaccine dose during the 2022-2023 flu season by the HCN DOH.



Elders had the highest percentage of Ho-Chunk members with at least one flu vaccine dose. Youth (0-11 years) were only two percent lower than Flders.

NOTE: Individuals 6 months and older are eligible for a flu vaccine. Most individuals only need one dose of flu vaccine, but youth aged 6 months-8 years who have had fewer than two flu vaccines in the past or don't know if they have had fewer than two doses should get two doses during this flu season (WI DHS, 2024).

Influenza (vaccine): Influenza vaccine

Source: HCN DOH NextGen; WI DHS Immunizations: Influenza vaccine data

Years displayed: 2022-2023 flu season



WAŽĄ HIGIRAWI (We care)



23





Prenatal Care

All tribal WI HCN DOH PRCDA

A pregnancy includes three trimesters:

1

0-13 weeks

2

14-26 weeks

3

27-40 weeks

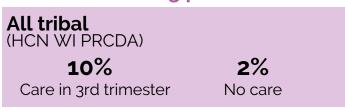
Prenatal care should begin as soon as when someone thinks they are pregnant to protect the health of themselves and the baby. A 2021 study found that the majority of women find out they are pregnant around week 6 and had their first prenatal visit around week 9 but this varies significantly by income, race/ethnicity, and age (Krukowski et al). Barriers to access prenatal care include limited appointment or provider availability, having no insurance or money to pay for visit costs, and driving far distances, among others.

About 12-13% more pregnant WI mothers received care in the first trimester when compared to access for tribal mothers.





Of those receiving prenatal care....





Prenatal care: Trimester prenatal care began

Source: WI DHS Wisconsin Interactive Statistics on Health

Years displayed: 2019-2023







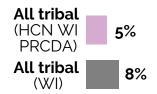


Low birth weight

All tribal WI HCN DOH PRCDA

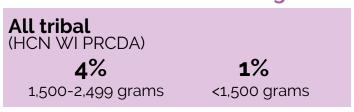
The average birth weight in the United States is 3,500 grams or 7.5 pounds. Low birth weight is any baby that weighs less than 2,500 grams or about 5.5 pounds. A baby with a low birth weight is often caused by 1) being born too early (pre-term) or 2) growing too slowly in the womb (poor intrauterine growth) or both. Low birth weight can be influenced by carrying more than one baby (like twins or triplets), smoking or alcohol use, and medical conditions like high blood pressure. Babies with low birth weight may need additional care after birth and/or may have developmental concerns related to their organ systems, immune system, breathing function, and nutrition (Jin, 2015).

The percentage of low birthweight from all groups is similar, ranging from 5% to 8%. Tribal babies from the PRCDA area had the lowest percentage of babies with low birthweight (5%) when compared to the other groups.





Of babies with low birth weight....





Low birth weight: Low birth weight module **Source:** WI DHS Wisconsin Interactive Statistics on Health

Years displayed: 2019-2023







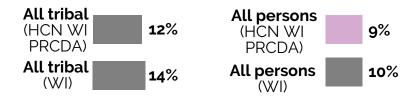


Preterm birth

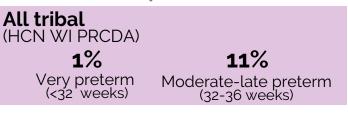
All tribal WI HCN DOH PRCDA

Preterm birth is a baby who is delivered before 37 weeks. The earlier a baby is born, the greater the risk of breathing and digestive issues, brain bleeding, and developmental effects later in life. In the United States, about 10% of all births were preterm in 2022. Like low birthweight, preterm birth can be caused by multiple factors including smoking or alcohol use, high blood pressure, experiencing stress, and carrying more than one baby. Women over 35, teens, Black/African American, Native Hawaiian, Tribal, and women with lower incomes have higher preterm birth rates (CDC, 2024).

There were 3-5% more preterm tribal babies when compared to all babies. Of tribal babies in the PRCDA born preterm, most of these were delivered 32-26 weeks. Tribal women statewide have the greatest percentage of babies who were born preterm (14%).



Of babies born preterm...





Pre-term birth: Gestational age based on obstetric estimate **Source:** WI DHS Wisconsin Interactive Statistics on Health

Years displayed: 2019-2023



WAŽĄ HIGIRAWI (We care)



26





Maternal Smoking

All tribal WI HCN DOH PRCDA

Babies can be exposed to smoking directly, by the mother (maternal smoking), or indirectly, by others in the household (secondhand smoking). Mothers who smoke during pregnancy put their baby at risk for miscarriage, preterm birth, low birth weight, and death from sudden infant syndrome (SIDS). These effects can lead to developmental effects, even later in life. In addition, smoking mothers may have pregnancy complications and may have more difficulty becoming pregnant (CDC, 2020).

There were 19- 22% more tribal mothers who smoked during pregnancy compared to all mothers. Tribal mothers statewide have the highest percentage of smoking during pregnancy.



Of mothers who smoked during pregnancy...

All tribal (HCN WI PRCDA)	
16%	9%
Entire pregnancy	Sometimes

All persons
(WI)

5%
Entire pregnancy
Sometimes

Pre-term birth: Maternal smoking

Source: WI DHS Wisconsin Interactive Statistics on Health

Years displayed: 2019-2023







The Environmental Health (EH) division works to prevent, identify, and manage environmental hazards through several programs, including those related to air, water, and soil. In addition, the EH division oversees emergency preparedness, injury prevention, institutional environmental health, public works, surface water monitoring, wetlands delineation, and assists in public health accreditation.

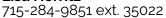
Available services to community members include:



Injury prevention

Free car seats & other safety equipment, when available Call for appointments

Lisa Herritz





Water-private wells

Free water testing and free well construction* Includes bacteria, nitrate, pH, iron, manganese, arsenic Assistance with emergency situations

Brock Brunstad 715-284-9851 ext. 35063



Water-private septic*

Free septic construction
Assistance with emergency situations **Brock Brunstad**

715-284-9851 ext. 35063



Air-environmental assessments

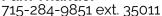
Mold and radon inspections

Matt Malimanek 715-284-9851 ext. 35054



Environmental health reporting

Inspections and testing for complaints Includes food, lodging, childcare, food or waterborne illness Environmental hazards reporting Pam Thunder





Environmental clean up

Resources to assist in clean-up for community hazards Includes dump sites, abandoned homes, hazardous spills, and more

Randy Poelma

715-284-9851 ext. 35061



Water- public water

Application for use for residential accounts **Kevin Gunderson** 715-284-9851 ext. 35060



Other services- available periodically

Clean Sweep Events- hazardous waste Rabies vaccine events for pets **Notices shared via social media**

*Dependent upon available funding; must be a tribal member, be the first well/septic constructed, and installed at primary residence









Inspections and Testing

Registered Tribal sanitarians conduct inspections among Ho-Chunk facilities and events to ensure public health safety. Inspections are conducted routinely and when complaints are issued.

Inspections occur at the following types of Ho-Chunk facilities:



















Food protection inspections and other testing also occur for:

- 1 Mass gatherings
- 2 Foodborne/waterborne illness investigations
- 3 Institutional environmental health

29





All Tribal: Environmental Health

The following section describes various environmental health measures including public drinking water conditions.



Community drinking water



Lead



Average ppb

All persons (HCN WI COMMUNITIES)

2.6

All persons (WI COUNTIES OF HCN COMMMUNITIES)

4.7



Copper

 $\sqrt{}$

Average ppb

All persons (HCN WI COMMUNITIES)

215.7

All persons (WI COUNTIES OF HCN COMMMUNITIES)

246.5



Nitrate



Average ppm

All persons (HCN WI COMMUNITIES)

1.8

All persons (WI COUNTIES OF HCN COMMMUNITIES)

2.2





Within maximum contaminant



Above maximum contaminant



Data not available or suppressed

30





All Tribal: Environmental Health cont.

The following section describes various environmental health measures including private drinking water (well) conditions.

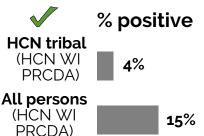


Private well water

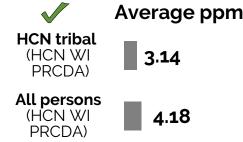
Primary contaminants



Bacteria







Secondary contaminants



Manganese



Average ppm

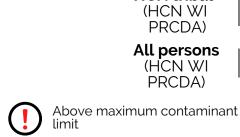
PRCDA)

0.07

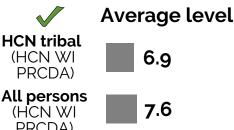
All persons (HCN WI PRCDA)

0.05

Within maximum contaminant







Data not available or suppressed



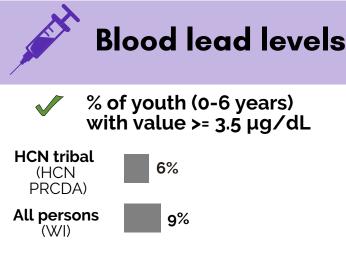
WAŽĄ HIGIRAWI (We care)

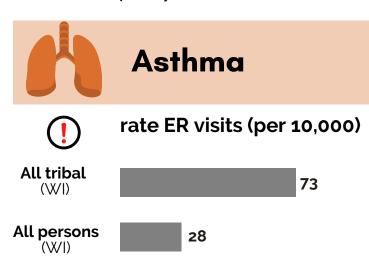


31

All Tribal: Environmental Health cont.

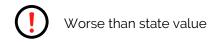
The following section describes various environmental health measures related to health outcomes associated with lead exposure and air quality.

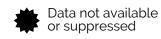




















Community Drinking Water



Lead

All persons WI HCN tribal communities

Lead gets into the drinking water from corrosive plumbing materials. This occurs when metal wears away due to a chemical reaction in the water; the temperature in the water, existing minerals, or the acidity/alkalinity of the water can cause this. The Lead and Copper Rule issued by the Environmental Protection Agency (EPA) states that water treatment facilities must take action to make "drinking water less corrosive to the materials it comes into contact with on its way to consumers' taps." It is estimated that lead exposure through water makes up a minimum of 20% of total lead exposure.

Lead exposure can be potentially harmful for all persons, but especially for children and pregnant women. In children, the effects of lead include behavioral and developmental issues. Similarly, pregnant women with lead exposure can result in pre-term birth or reduced growth of the fetus (EPA, 2023).

Lead summary

Maximum contaminant level (MCL):

Highest level allowed in drinking water; Requires action if 10% or more samples exceed value

Maximum contaminant level goal (MCLG):

Level for at which there is no known or expected risk for health

During 2021-2023, in the HCN community water system, lead reads included Jackson, Sauk, and Wood counties. The Wisconsin counties for all residents reflect these same counties and their reads during this period.

All persons All persons (HCN WI (WI COUNTIES OF COMMUNITIES) HCN COMMMUNITIES) % water reads 0% 1.6% over lead MCL: Range of 0.62-4.3 ppb 0.29-249 ppb lead reads:

Public drinking water: Water Quality Report; Drinking Water System Portal **Source:** HCN DOH EH Division; WI Department of Natural Resources

Years displayed: 2021-2023



WAŽĄ HIGIRAWI (We care)



15 ppb

o ppb

33



Community Drinking Water



Copper

All persons WI HCN tribal communities

Copper is naturally found in water, but it can also come from corroded household plumbing sources. Using hot water or water that has not been used can increase the risk of copper exposure. The Lead and Copper Rule issued by the Environmental Protection Agency (EPA) states that water treatment facilities must take action to make "drinking water less corrosive to the materials it comes into contact with on its way to consumers' taps" (2023).

Usually, copper does not cause health effects in healthy individuals. However, exposure to high levels can cause headaches, gastrointestinal issues, liver damage, and kidney disease. Babies (< 1 year) are at an increased risk for copper exposure because their bodies cannot get rid of it easily (MN Department of Health, 2023).

Copper summary

Maximum contaminant level (MCL):

Highest level allowed in drinking water; Requires action if 10% or more samples exceed value

Maximum contaminant level goal (MCLG): Level for at which there is no known or

Level for at which there is no known or expected risk for health

During 2021-2023, in the HCN community water system, copper reads included Jackson, Sauk, and Wood counties. The Wisconsin counties for all residents reflect these same counties and their reads during this period.

All persons (HCN WI COMMUNITIES) All persons (WI COUNTIES OF HCN COMMMUNITIES)

1,300 ppb

1,300 ppb

% water reads over copper MCL:

0%

0.7%

Range of copper reads:

11.5-637 ppb

3.5-1,660 ppb

Public drinking water: Water Quality Report; Drinking Water System Portal **Source:** HCN DOH EH Division; WI Department of Natural Resources

Years displayed: 2021-2023

34







Community Drinking Water



Nitrate

All persons WI HCN tribal communities

Nitrate is naturally found in plants and animals. However, excess nitrate gets into the water from fertilizers and animal/human waste.

High levels of nitrate increase your risk for colon cancer and thyroid disease. Babies and pregnant women are at an increased risk of nitrate effects. In babies, nitrate increases their risk of blue baby syndrome (methemoglobinemia), where their skin turns a blue/gray color. This color change occurs because nitrate affects how blood carries oxygen; reduced blood oxygen levels can also result in fatigue, dizziness, and a higher heart rate. In pregnant women, excess nitrate exposure can cause birth defects, like neural tube defects (this includes birth defects of the brain, spine, and spinal cord) (WI DHS, 2023).

Nitrate summary

Maximum contaminant level (MCL):

Highest level allowed in drinking water; Requires action if 10% or more samples exceed value

Maximum contaminant level goal (MCLG):

Level for at which there is no known or expected risk for health



During 2021-2023, in the HCN community water system, nitrate reads included Jackson. Sauk. and Wood counties. The Wisconsin counties for all residents reflect these same counties and their reads during this period.

All persons All persons (WI COUNTIES OF (HCN WI HCN COMMMUNITIES) COMMUNITIES) % water reads 0% 0% over nitrate MCL: Range of 0.5-3.3 ppm 0-7.1 ppm nitrate reads:

Public drinking water: Water Quality Report; Drinking Water System Portal **Source:** HCN DOH EH Division; WI Department of Natural Resources

Years displayed: 2021-2023



WAŽĄ HIGIRAWI (We care)



35

10 ppm

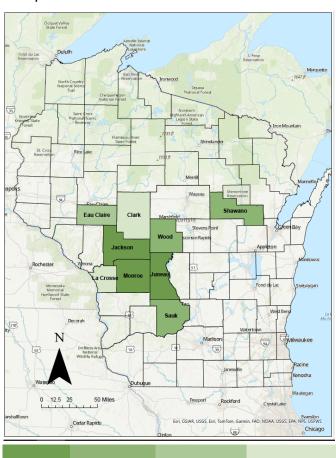




Bacteria

All persons WI HCN tribal communities

Bacterial tests in well water check if there are bacterial coliforms present. When coliforms are present, it means the water has been contaminated by soil or feces (poop); this contamination often occurs due to well/septic systems that are not maintained or due to the transport of human/animal feces through groundwater or runoff (WI DHS, 2018). Some coliforms can cause symptoms like diarrhea, vomiting, cramps, nausea, headaches, fever, and fatigue (MN Department of Health, 2018).



The data reflects households that have had their well water tested by the EH division. The map reports the number of samples that had a bacterial well test, positive or negative. There were too few positive samples to display them geographically.

of bacteria well tests

Jackson, Juneau. Monroe

Eau Claire

Sauk, Shawano, Wood

Clark, La Crosse

If a positive bacterial coliform is found, a follow-up sample is taken. If the second sample is positive, the well is disinfected by the EH Division.

% of wells with positive bacteria

HCN tribal (HCN WI PRCDA)

4%

All persons (HCN WI PRCDA)

15%

NOTE: No bacteria well samples have been taken in Adams, Columbia, Crawford, Dane, Marathon, or Vernon County during 2020-2023.

36

Lower Higher

Private well water: Water sampling data; WI Well Water Quality Viewer **Source:** HCN DOH EH Division; UW Stevens Point

Years displayed: 2020-2023; 1988-2023









Nitrate

All persons WI HCN tribal communities

*A grayed out county in the map means there were not enough tests to display the average (< 2 tests)

Nitrate is naturally found in plants and animals. However, excess nitrate gets into the water from fertilizers and animal/human waste. In wells, excess nitrate moves through the groundwater and runoff (WI DHS, 2023). High levels of nitrate increase your risk for colon cancer and thyroid disease.

> **HCN** tribal (HCN WI PRCDA)

All persons (HCN WI PRCDA)

The data reflects households that have had their well water tested by the EH division. The map reports the average nitrate level (by ppm).

Average nitrate level (ppm)*

4.5-9.4

Eau Claire

1.4-3.3

Juneau, La Crosse, Sauk, Wood

3.4-4.8

Monroe, Shawano

< 1.4

Jackson

Health standard- 10 ppm

Level of nitrate should not exceed this level to avoid human health hazards.

If a nitrate value exceeds the health standard, the EH division will provide treatment in the form of reverse

% of wells over health standard

3%

14%

HCN DOH samples

WI resident samples from PRCDA counties

NOTE: No nitrate well samples have been taken in Adams, Columbia, Crawford, Dane, Marathon, or Vernon County during 2020-2023

Higher

Lower

Private well water: Water sampling data; WI Well Water Quality Viewer **Source:** HCN DOH EH Division; UW Stevens Point

Years displayed: 2020-2023; 1988-2023

WAŽĄ HIGIRAWI (We care)





94

Fau Claire





Manganese

All persons WI HCN tribal communities

*A grayed out county in the map means there were not enough tests to display the average (< 2 tests)

Manganese naturally occurs in rocks, soil, groundwater, and surface water. At manganese levels of 0.05 ppm, you may notice a brownish-red stain on plumbing fixtures, and an off-taste or odor. Excess manganese may cause health effects such as neurological effects or developmental effects in babies (CT Department of Health, nd).

HCN tribal (HCN WI PRCDA)

0.07

All persons (HCN WI PRCDA) 0.05

The data reflects households that have had their well water tested by the EH division. The map reports the average manganese level (by ppm).

Average manganese level (ppm)*

0.21-0.34 Eau Claire

0.03-0.06 Jackson, Monroe

0.07-0.20

Sauk, Wood

< 0.03

Juneau, La Crosse Shawano

Health standard- 0.3 ppm

Level of manganese should not exceed this level to avoid human health hazards.

If a manganese value exceeds the health standard, the EH division will provide education on manganese removal.

% of wells over health standard

4%

3%

HCN DOH samples

WI resident samples from PRCDA counties

NOTE: No manganese well samples have been taken in Adams, Columbia, Crawford, Dane, Marathon, or Vernon County during 2020-2023

38

Higher

Lower

(34)

Private well water: Water sampling data; WI Well Water Quality Viewer **Source:** HCN DOH EH Division; UW Stevens Point

Years displayed: 2020-2023; 1988-2023



(W)







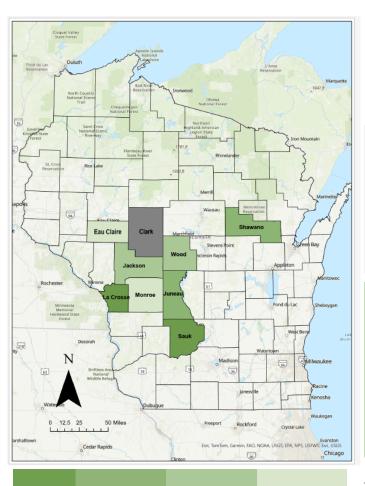
pH level

All persons WI HCN tribal communities

*A grayed out county in the map means there were not enough tests to display the average (< 2 tests)

7.6

The pH of water measures how acidic or basic it is, ranging from 0-14 (7= neutral, < 7 is more acidic, and > 7 is more basic). Although the pH of water is not necessarily a health concern, it remains an important measure of water quality. Water that is too acidic can result in corrosive plumbing materials, which can result in lead or copper entering your water. The desirable pH level range is 6.5-8.5 (WHO, 2007).



HCN tribal (HCN WI PRCDA) 6.9

All persons (HCN WI PRCDA)

The data reflects households who have had their well water tested by the EH division. The map reports the average pH level.

Average pH level

7.5-7.8 La Crosse, Sauk 6.3-6.8 Jackson, Wood

6.9-7.4 Juneau, Shawano **6.1-6.2** Eau Claire, Monroe

Desirable range-6.5-8.5

Level of pH should not be below or above this range

If a pH value exceeds the health standard, the EH division will conduct additional water testing.

% of wells outside range

21%

N/A

HCN DOH WI resident samples samples from PRCDA counties

NOTE: No pH well samples have been taken in Adams, Columbia, Crawford, Dane, Marathon, or Vernon County during 2020-2023

39

Private well water: Water sampling data; WI Well Water Quality Viewer

Lower

Source: HCN DOH EH Division; UW Stevens Point Years displayed: 2020-2023; 1988-2023



Higher





Blood lead levels

HCN Tribal HCN DOH PRCDA

Lead poisoning happens when lead builds up in the body. To check for this, blood lead level tests are used. Lead exposure occurs through dust from paint containing lead (inhalation or hands-to-mouth), drinking water from corroded plumbing fixtures, touching soil with leaded gasoline, and through other products like toys, jewelry, or others. Lead poisoning can result in developmental delays, learning disabilities., and kidney or nervous system damage (WI DHS, 2023). Children (less than 6 years) and pregnant women are most at-risk for harmful lead effects. Lead exposure in pregnant women can result in pre-term births, developmental effects, and miscarriage (CDC, 2022).

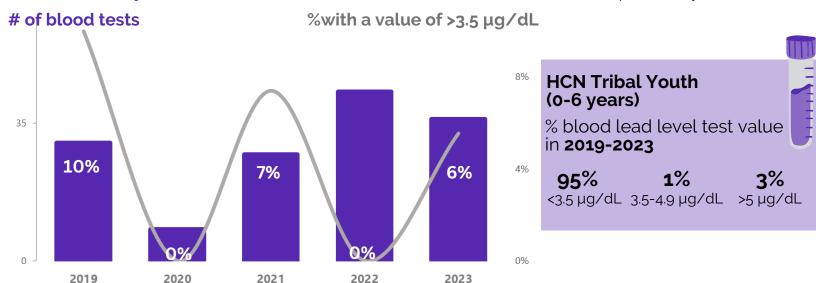
The value below reflects the percentage of blood lead tests exceeding the health standard of 3.5 µg/dL in 2023... **HCN** tribal

(HCN

PRCDA)

All persons

The data below reflects Ho-Chunk Tribal youth (6 years or less) who have received a blood lead level test at any of the HCN DOH clinics or other HCN DOH services in the past five years.



NOTE: Previously, lead poisoning was defined as a blood lead level of 5 µg/dL. Later in 2021, the Centers for Disease Control & Prevention (CDC) updated this value to 3.5 µg/dL.

Blood lead levels: Blood lead level tests & results; Childhood lead poisoning Source: HCN DOH NextGen; WI Environmental Health Tracking Program

Years displayed: 2019-2023; 2023

40







Asthma

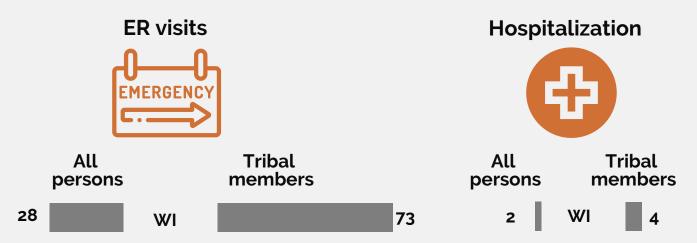
All Tribal WI HCN DOH PRCDA

Asthma is a health condition that affects your lungs. It can be caused by environmental factors, such as smoking, mold, other allergens, air pollution, and by things like lung infection or family history. Asthma can cause coughing, wheezing, chest tightness, and breathlessness. When something significantly triggers your asthma, you can have an asthma attack. Asthma attacks happen when your lungs swell, the airways shrink, and mucus clogs the airways. **ER visits and hospitalizations for asthma often occur due to asthma attacks** (CDC, 2021).

It is estimated that **10% of all Wisconsites** (CDC, 2022) and **19% of Ho-Chunk Tribal members** (Suryanarayanan, 2019) **have asthma**.

The numbers below describe the **rate** (per every 10,000 people) of Wisconsin persons either **hospitalized or seen in the ER for asthma** in Wisconsin, Minnesota, or lowa.

During 2023...



Asthma Primary cause of admission- ER and hospitalization; Asthma **Source:** WI DHS Office of Health Informatics; WI Environmental Tracking Program **Years displayed:** 2023



WAŽĄ HIGIRAWI (We care)



41

References

Ho-Chunk Nation Community Profile

Ho-Chunk Nation Office of Enrollment. (2023, October). *Ho-Chunk Nation tribal enrollment-October 2023* [report].

Purchased Referred Care Delivery Area

About PRCDA:

Centers for Disease Control and Prevention, Division of Cancer Control and Prevention (2022, October 26). Interpreting race and ethnicity in cancer data.

https://www.cdc.gov/cancer/uscs/technical_notes/interpreting/race.htm

Ho-Chunk Nation Population Statistics: See Ho-Chunk Nation Community Profile citation

Community Conditions Social Vulnerability Index

About SVI Index:

Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (2022, October 26). CDC/ATSDR SVI fact sheet.

https://www.atsdr.cdc.gov/placeandhealth/svi/fact_sheet/fact_sheet.html

SVI levels by county data summary

Center for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (2024, July 22). CDC/ATSDR Social Vulnerability Index (SVI) overall SVI by county 2022 [map].

https://www.atsdr.cdc.gov/place-health/php/svi/index.html.

Hospitalization and ER Visits

Wisconsin Department of Health Services, Office of Health Informatics (2025, January). *Hospital discharge visits (inpatient and ER) for American Indian/Alaska Native during 2023* [report].







Causes of Death

Ho-Chunk Nation cause of death data summary:

Ho-Chunk Nation Office of Enrollment. (2025, May). Ho-Chunk Nation deceased statistics: 2019 to 2023 [report].

WI Tribal cause of death data summary:

Centers for Disease Control and Prevention WONDER (2025, June). 2018–2023: Underlying cause of death, since race request, WI AI/AN 2019–2023. (Wisconsin American Indian/Alaska Native). https://wonder.cdc.gov/ucd-icd10.htm

Socioeconomic Factors

About socioeconomic status:

Phelan, J.C., Link, B.G., & Tehranifar, P. (2010). Social conditions as fundamental causes of health inequalities: Theory, evidence, and policy implications. *Journal of Health and Social Behavior*, *51*(S), S28–S40.

Educational attainment:

United States Census Bureau American Community Survey (ACS). (2025, May 9). Sex by educational attainment for the population 25+ years for American Indian/Alaskan Native alone in selected Wisconsin counties from 2019–2023 [table]. https://www.census.gov/programs-surveys/acs/data.html

Household income:

Tribal populations:

United States Census Bureau American Community Survey (ACS). (2025, May 9). Median income in the past 12 months (in 2023 inflation-adjusted dollars) in selected Wisconsin counties for American Indian/Alaskan Native alone from 2019-2023 [table]. https://www.census.gov/programs-surveys/acs/data.html

All persons:

United States Census Bureau American Community Survey (ACS). (2025, May 9). *Median income in the past 12 months (in 2023 inflation-adjusted dollars) in Wisconsin for all races from 2019–2023* [table]. https://www.census.gov/programs-surveys/acs/data.html

vi





Poverty:

Tribal populations

United States Census Bureau American Community Survey (ACS). (2025, May 9). Poverty status in the past 12 months in selected Wisconsin counties for American Indian/Alaskan Native alone from 2019–2023 [table]. https://www.census.gov/programs-surveys/acs/data.html

All persons

United States Census Bureau American Community Survey (ACS). (2025, May 9). *Poverty status in the past 12 months in Wisconsin for all races from 2019–2023* [table]. https://www.census.gov/programs-surveys/acs/data.html

Cost of living:

Minnesota, family of 4 in childcare

United for ALICE. (2025). The state of ALICE in Minnesota (2023), ALICE county reports with zip and place data. https://www.unitedforalice.org/county-reports/MINNESOTA#11/43.6733/-91.4739

Wisconsin, family of 4 in childcare

United for ALICE. (2025). The state of ALICE in Wisconsin (2023), ALICE county reports with zip and place data. https://www.unitedforalice.org/county-reports/wisconsin#7/44.832/-89.847

All tribal: Public Health Outcomes

Cancer:

Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics, Wisconsin Cancer Reporting System. (2024, May). Wisconsin Interactive Statistics on Health (WISH) data query system, cancer module, cancer incidence. https://www.dhs.wisconsin.gov/wish/cancer/incidence.htm

Sexually transmitted infections:

About prevention

Mayo Clinic. (2022, May 5). Sexually transmitted disease (STD) symptoms.

https://www.mayoclinic.org/diseases-conditions/sexually-transmitted-diseases-stds/in-depth/std-symptoms/art-20047081

About prevention-vaccines

Centers for Disease Control and Prevention, Division of STD Prevention, National Center for HIV, Viral Hepatitis, STD, and TB, Prevention. (2023, February 22). How you can prevent sexually transmitted diseases. https://www.cdc.gov/std/prevention/default.htm





STI data summary- Ho-Chunk Nation

Ho-Chunk Nation Department of Health NextGen. (2024, December). Sexually transmitted diseases-Chlamydia, Gonorrhea, and Syphilis 2023 [report].

STI data summary- Wisconsin

Wisconsin Department of Health Services, Division of Public Health, STI Unit. (2024, September). *Sexually transmitted infections in Wisconsin*, 2023. Reported cases [report]. https://www.dhs.wisconsin.gov/publications/p00415-2023.pdf

Influenza vaccine

About flu

Wisconsin Department of Health Services. (2024, October 1). *About Influenza (Flu)*. https://www.dhs.wisconsin.gov/influenza/about.htm

Flu vaccine data summary- Ho-Chunk Nation

Ho-Chunk Nation Department of Health NextGen. (2025, July). Influenza vaccine, 2022-2023 [report].

Flu vaccine data summary- Wisconsin, all residents

Wisconsin Department of Health Services (2025, June 25). *Immunizations: Influenza vaccine data, 2022-2023 season.* https://www.dhs.wisconsin.gov/immunization/influenza.htm

<u>Prenatal care</u>

Prenatal care access

Krukowski et al. (2022). Correlates of early prenatal care access among US women: Data from the Pregnancy Risk Assessment Monitoring System (PRAMS). *Maternal and Child Health Journal*, 26(2), 328–41.

Prenatal care data summary-Tribal and all Wisconsin residents

Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics, Birth-Related. (2025, March). Wisconsin Interactive Statistics on Health (WISH) data query system, birth counts module, trimester prenatal care began, 2019–2023 https://www.dhs.wisconsin.gov/wish/birth/index.htm







Low birth weight

Low birth weight effects

Jin, J. (2015). Babies with low birthweight. JAMA Network.

https://jamanetwork.com/journals/jama/fullarticle/2091990

Low birthweight data summary-Tribal and all Wisconsin residents

Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics, Birth-Related. (2025, March). Wisconsin Interactive Statistics on Health (WISH) data query system, low birthweight module, 2019–2023. https://www.dhs.wisconsin.gov/wish/lbw/form.htm

Pre-term birth

Pre-term birth causes and health impacts

A) Centers for Disease Control and Prevention, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion. (2024, November). Preterm birth. https://www.cdc.gov/maternal-infant-health/preterm-birth/index.html

All tribal: Environmental Health

Community water-Lead

Lead summary

Environmental Protection Agency (2023, January 27). *Basic information about lead in drinking water*. https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water

Lead data summary-Ho-Chunk Nation

Ho-Chunk Nation Department of Health, Environmental Health Division (n.d.). Water quality report, consumer confidence report by Ho-Chunk community, 2021-2024 [report].

Lead data summary-Wisconsin residents

Wisconsin Department of Natural Resources (n.d.). Drinking Water System Portal, Find contaminants in public water supplies, lead, active municipal community, 2021–2023 in select counties. https://dnr.wi.gov/dwsviewer/ContamResult/Search

Community water- Copper

Copper sources

See lead summary source above







Copper effects

Minnesota Department of Health, Environmental Health Division (2023, January 9). *Copper in drinking water*.https://www.health.state.mn.us/communities/environment/water/docs/contaminants/copperfactsht.pdf

Copper data summary-Ho-Chunk Nation

See lead summary Ho-Chunk Nation above

Copper data summary- Wisconsin residents

Wisconsin Department of Natural Resources (n.d.). Drinking Water System Portal, Find contaminants in public water supplies, copper, active municipal community, 2021–2023 in select counties. https://dnr.wi.gov/dwsviewer/ContamResult/Search

Community water-Nitrate

Nitrate effects

Wisconsin Department of Health Services (2023, April 12). *Nitrate in private wells*. https://www.dhs.wisconsin.gov/water/nitrate.htm

Nitrate data summary- Ho-Chunk Nation

See copper data summary Ho-Chunk Nation above

Nitrate data summary- Wisconsin residents

Wisconsin Department of Natural Resources (n.d.). Drinking Water System Portal, Find contaminants in public water supplies, nitrate, active municipal community, 2021–2023 in select counties. https://dnr.wi.gov/dwsviewer/ContamResult/Search

Private wells-Bacteria

Bacteria sources

Wisconsin Department of Health Services, Division of Public Health, Bureau of Environmental and Occupational Health (2018, April). *Bacteria in private well water* [fact sheet].

https://www.dhs.wisconsin.gov/publications/p02132.pdf

Bacteria effects

Minnesota Department of Health, Environmental Health Division, Well Management Section (2019, August 1). Bacterial safety of well water [fact

sheet].https://www.health.state.mn.us/communities/environment/water/docs/wells/waterquality/bacteria.pdf

Bacteria data summary- Ho-Chunk Nation

Ho-Chunk Nation Department of Health, Environmental Health Division (n.d.). *Water sampling data*, 2020–2023[report].







Bacteria data summary- Wisconsin residents

University of Wisconsin Stevens-Point, Center for Watershed Science and Education (2023, January). Wisconsin well water quality viewer, 1988–2023.

[map].https://gissrv3.uwsp.edu/webapps/gwc/pri_wells/

Private wells-Nitrate

Nitrate effects

See nitrate effects (community water-nitrate above)

Nitrate data summary- Ho-Chunk Nation

See bacteria data summary- Ho-Chunk Nation above

Nitrate data summary- Wisconsin residents

See bacteria data summary-Wisconsin residents above

Private wells-Manganese

Manganese effects

Connecticut Department of Health (n.d.). What you need to know about manganese in private well water [fact sheet].https://portal.ct.gov/-/media/Departments-and-

Agencies/DPH/dph/environmental_health/eoha/Toxicology_Risk_Assessment/Manganese_FINAL.pdf

Manganese data summary- Ho-Chunk Nation

See bacteria data summary- Ho-Chunk Nation above

Manganese data summary-Wisconsin residents

See bacteria data summary- Wisconsin residents above

Private wells-pH

pH effects

World Health Organization (2007). pH in drinking water [report].

https://cdn.who.int/media/docs/default-source/wash-documents/wash-chemicals/ph.pdf?sfvrsn=16b10656 4

pH data summary- Ho-Chunk Nation

See bacteria data summary- Ho-Chunk Nation above

pH data summary- Wisconsin residents

See bacteria data summary- Wisconsin residents above

Blood lead levels

Blood lead level sources

Wisconsin Department of Health Services (2023, March 3). *Lead-safe Wisconsin: What is lead poisoning?* https://www.dhs.wisconsin.gov/lead/clppp-info.htm







Blood lead level effects

Centers for Disease Control and Prevention, National Center for Environmental Health, Division of Environmental Health and Practice (2022, July 1). *Childhood lead poisoning prevention, pregnant women.* https://www.cdc.gov/nceh/lead/prevention/pregnant.htm

Blood lead level data summary- Ho-Chunk Nation

Ho-Chunk Nation Department of Health, Nextgen (2025, May). Blood lead tests and levels, 2019-2023 [report].

Blood lead level data summary- Wisconsin residents

Wisconsin Department of Health Services, Environmental public health tracking program (2025, January 17). Environmental public health data tracker childhood lead poisoning 2023 (statewide). https://www.dhs.wisconsin.gov/epht/lead.htm

Asthma

About asthma

Centers for Disease Control and Prevention, National Center for Environmental Health (2021, July 1). *Learn how to control asthma*. https://www.cdc.gov/asthma/faqs.htm

Asthma Wisconsin prevalence- all residents

Centers for Disease Control and Prevention, National Center for Environmental Health (2022, December 13). Most recent asthma state or territory data.

https://www.cdc.gov/asthma/most_recent_data_states.htm

Asthma Ho-Chunk Nation prevalence- HCN tribal

Suryanarayanan, S. (2019, December). *Ho-Chunk Nation community health assessment 2017-2019* [report]. Ho-Chunk Nation Department of Health. https://health.ho-chunk.com/docs/CHA2020.pdf

Asthma data summary- Tribal ER/hospitalization

See hospitalization and ER visits above

Asthma data summary- Wisconsin residents

Wisconsin Department of Health Service, Environmental public health tracking program (2025, May 7). Environmental public health tracker asthma 2023 (statewide).

https://www.dhs.wisconsin.gov/epht/asthma.htm

xii





Hospitalization & ER Visit Data Definitions

Data included in the hospitalization and ER visit summaries are separated by different health categories. Each health category is created by including specific health outcomes. Each health outcome is labeled by a specific ICD-10-CM diagnosis code by primary diagnosis. ICD-10 is the most current diagnosis code set used today- this change was implemented by the Centers for Medicare and Medicaid Services in 2015.

NOTE: Health categories were used by following the same set of ICD-10-CM codes listed by the references down below unless otherwise noted. Since the latest WI DHS Public Health Profile (2017) used ICD-9 CM codes that are no longer in use, a converter was used. Please note, that some older codes do not create a perfect conversion, while other codes are a close conversion. This process is also further explained in the WI DHS Public Health Profile appendices.

ICD-10 CM Health Categories Sources (Code Groupings)

Wisconsin Department of Health Services: Wisconsin Public Health Profile (2017).

https://www.dhs.wisconsin.gov/publications/p4/p45358-2017.pdf

Michigan Department of Health Services: Ambulatory Care Sensitive (ACS) Conditions ICD-9-CM and ICD-10-CM Groupings.

https://www.mdch.state.mi.us/OSR/CHI/HOSP/ICD9CM1.HTM

American Academy of Professional Coders: Convert ICD-9 to ICD-10.

https://www.aapc.com/icd-10/codes/

Additional Coding/Conversion Notes

Accidents/injuries

- Poisonings: Only when specified as "unintentional"
- Broken bones: Only when "fractured" or "fract" is used

Mental/Behavioral Health

- Suicide: Includes ideation and "intentional" or "self-harm" poisonings
- Conditions/disorders: Includes all other mental/behavioral health outcomes excluding suicide. Codes used include F01-F99.

Alcohol & Drug use

Includes "use" and "abuse," does not include "dependence"

COVID-19

• Includes infection of, exposure to, and exposure to general communicable disease when COVID is specified. Codes used include B34.2, U071, Z20822







Acknowledgements

Special thanks to the various Ho-Chunk Nation staff who contributed to this report:

Brock Burnstad
POWTS & Well Inspector
Kandyce Dunlap, PhD, CHES
Public Health Director
Katie Kissane-Twobears
Clinical Applications Coordinator
Kevin Gunderson
Environmental Sciences Program Manager
Pam Thunder, RS
Environmental Health Program
Manager

Rob Voss, RS
Environmental Health Director
Ronelle McKernan, BS, BSN, RN
Public Health Nurse
Sarah Reed-Thryselius, MPH
Epidemiologist
Wyatt Pajtash
GIS Coordinator

And to the Wisconsin Department of Health Services Office of Health Informatics for providing tribal hospitalization/ER data, the Ho-Chunk Nation Office of Enrollment for providing Ho-Chunk statistics. and the Ho-Chunk Nation Public Information Officer for Ho-Chunk photos.

xiv



