2023

STATEWIDE HEPATITIS C AND HEPATITIS B SURVEILLANCE REPORT

WISCONSIN

Epidemiologic Evaluation of Hepatitis C Virus (HCV) and Hepatitis B Virus (HBV) in Wisconsin

P-00440A (10/2024)

WISCONSIN DEPARTMENT of HEALTH SERVICES

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Introduction

This report was developed by the Wisconsin Department of Health Services (DHS) and provides a high-level summary of the epidemiology of hepatitis C and hepatitis B across the state of Wisconsin. Populations who are disproportionately impacted by viral hepatitis may also experience structural racism, stigma, and poverty, as well as unequal access to health care, education, and housing. All these factors affect communities of color disproportionately, as many of these priority populations have been historically excluded from resources and opportunities to live healthy lives. Though not exhaustive, the tables below provide context for current data trends related to viral hepatitis.

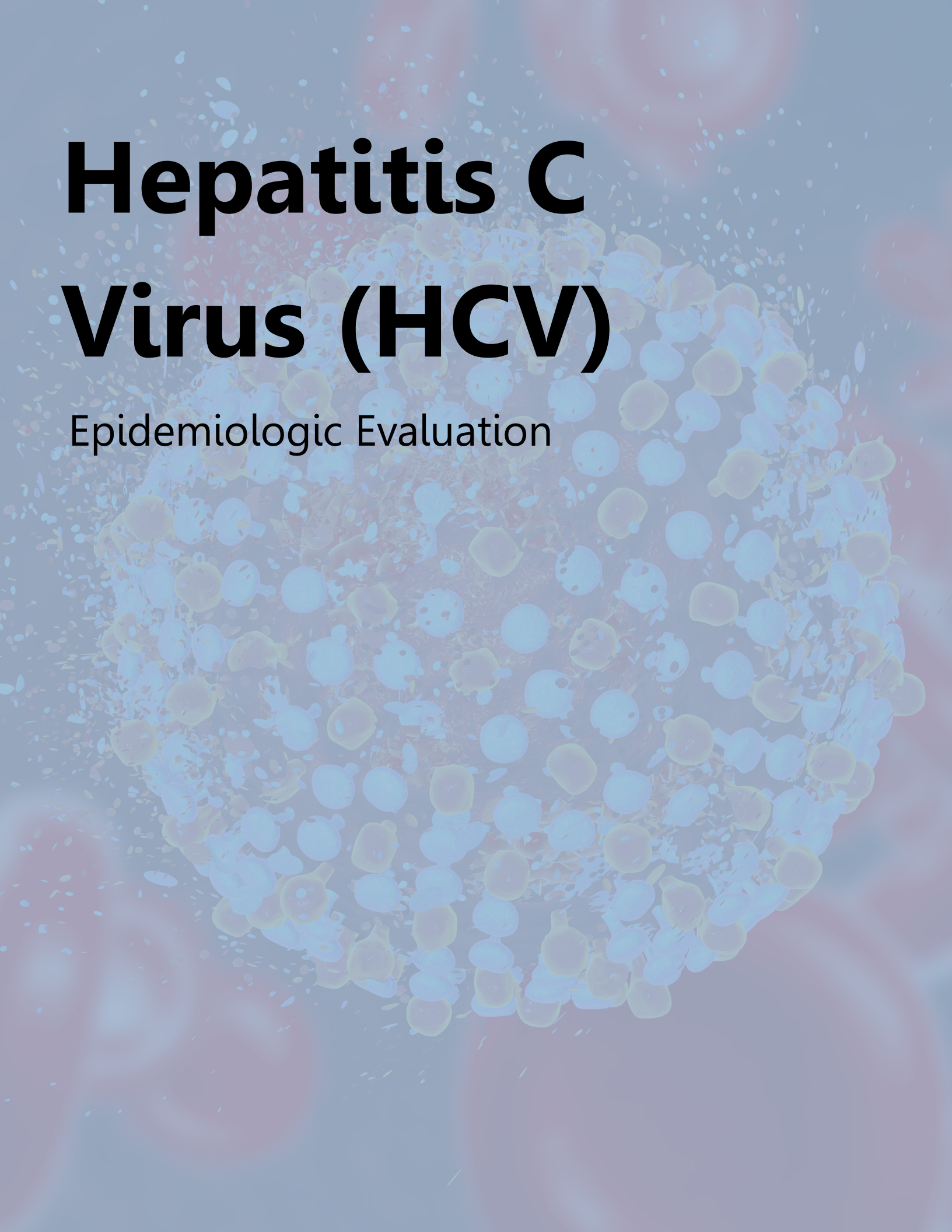
Hepatitis B	
Priority groups	
People born outside the United States	People born in countries with medium-to-high prevalence of hepatitis B and have lack of access to vaccinations at birth are the most affected by hepatitis B in Wisconsin.
Infants born to people living with hepatitis B	Not all infants are vaccinated at birth, and among those who may have been perinatally exposed, many do not receive post-exposure prophylaxis.
Black, Indigenous, and People of color (BIPOC)	Structural and institutional discrimination in addition to cultural and linguistic barriers impact the availability and quality of viral hepatitis health care services that disproportionately impact Black, Indigenous, and People of color.

Hepatitis C	
Priority groups*	
People who use drugs (PWUDs)	Criminalization of drug use and stigma surrounding harm reduction services remain barriers to prevention. Injection drug use (IDU) continues to be a primary exposure among people affected by HCV in Wisconsin.
People with criminal justice involvement	People affected by incarceration have an increased likelihood of exposure to viral hepatitis due to institutionalized issues including limited access to health care during and after incarceration. For additional information, please review the 2023 DOC Syndemics Surveillance Report.
Black, Indigenous, and People of color (BIPOC)	Structural and institutional discrimination in addition to cultural and linguistic barriers impact the availability and quality of viral hepatitis health care services that disproportionately impact Black, Indigenous and People of color.
People of childbearing age (15-44 years)	Perinatal transmission occurs in approximately 6% of all infants born to a person living with HCV.

*Hepatitis C priority groups are also key populations for hepatitis A and B prevention.

Hepatitis C Virus (HCV)

Epidemiologic Evaluation



Background

This report by the Wisconsin Department of Health Services (DHS) Adult Viral Hepatitis Unit (AVHU) is a high-level summary of the epidemiology of hepatitis C (HCV) in the state of Wisconsin. It serves to identify where enhanced attention and resources are needed to prevent, diagnose, and treat HCV.

Hepatitis C Surveillance – Health Equity Key Takeaways

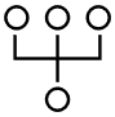
In 2023, 1,387 cases of hepatitis C were newly reported to DHS, including three perinatal, 81 acute cases, and 1,303 newly reported chronic cases. Chronic cases accounted for 94% of all newly reported cases, and acute cases for 5.8%. Perinatal cases accounted for less than 1% of all reports. Combined newly reported cases in 2023 are 18.5% less than 2022 cases and 32.6% less than 2021 cases.

Rate of new hepatitis C cases is highest in Native American people

In 2023, the rate of new hepatitis C cases among Native American people was 6.4 times and 4.2 times greater than the rate of new hepatitis C cases among white and Hispanic people, respectively.

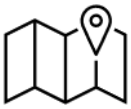
People who may become pregnant remain a key priority population to combat perinatal transmission

Cases in females aged 15–44 (reproductive age) accounted for 58% of all cases in females.



People aged 30–39 have the highest rate of HCV

In 2023, people aged 30–39 had the highest rate of HCV per 100,000 people (60.4), followed by people aged 40–49 (42.4 per 100,000), 50–59 (24.7 per 100,000), 20–29 (19.6 per 100,000), 60+ (19.3 per 100,000), and 0–19 (0.7 per 100,000).



Specific Wisconsin counties remain disproportionately impacted

Over the past three years, the highest number of reported cases in Wisconsin were located in Milwaukee County (n=1311), Dane County (n=373), and Waukesha County (n=189). However, the highest rate of HCV per 100,000 people were located in Sawyer County (87.6 per 100,000), Ashland County (60.6 per 100,000), and Florence County (58.4 per 100,000).

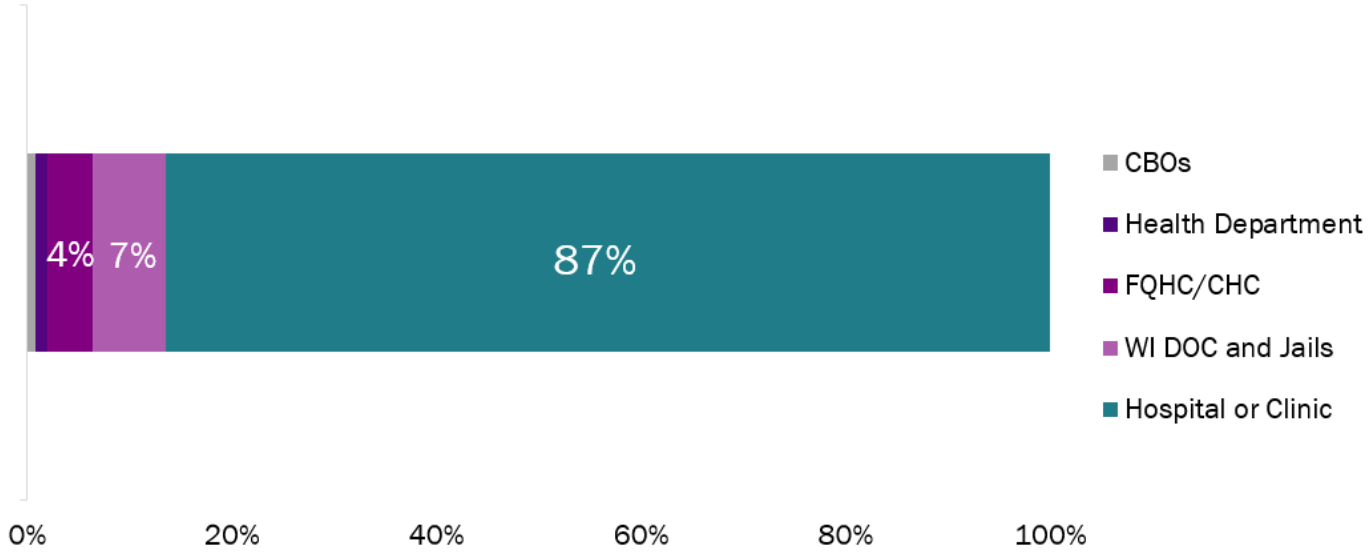
Testing

Per Wisconsin Statute, hepatitis C is a Category II disease and is reportable within 72 hours of a case or suspected case, indicated by a reactive Ab or RNA result. DHS also requires all RNA laboratory results, including negative results, to be reported.

Hepatitis C results are reported to public health by:

- Private or health care providers
- Hospitals
- Clinics
- Ambulatory care facilities
- Sexually transmitted disease clinics
- Family planning clinics
- Perinatal clinics
- Tribal health clinics
- Blood and plasma centers
- The correctional system
- Laboratories that perform HCV testing

Figure 1. In 2023, among the facilities that reported RNA results to public health, hospitals and clinics represented the majority of testing facilities (87%).



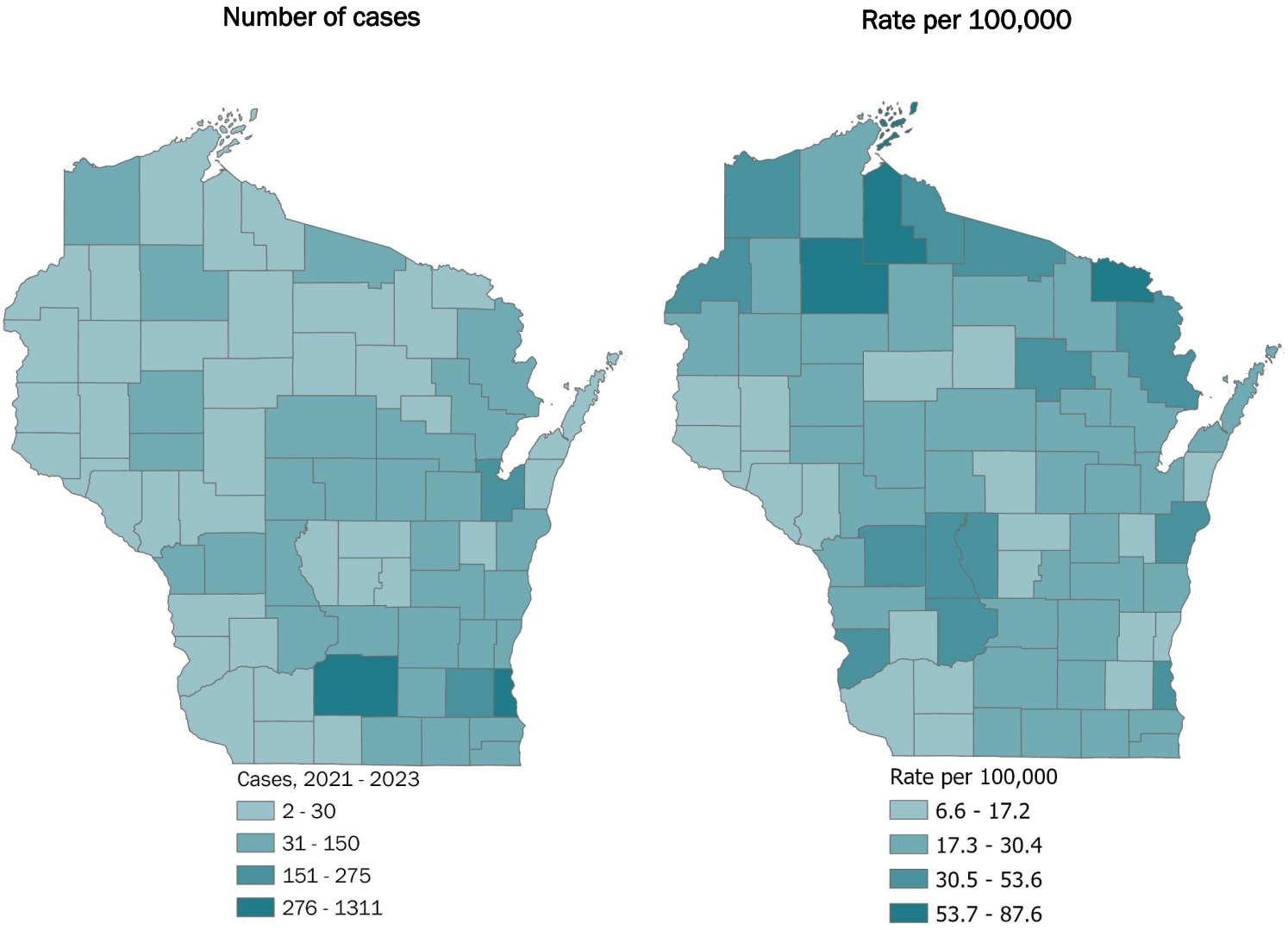
Wisconsin Hepatitis C Surveillance

Over the past five years, an average of 31% of HCV cases reported in Wisconsin were classified as 'Probable,' indicating incomplete testing. CDC recommends that all samples needed to diagnose hepatitis C be collected in a single visit and HCV RNA testing be performed automatically when the HCV antibody is reactive. Updated Operational Guidance for Implementing CDC's Recommendations on Testing for Hepatitis C Virus Infection | MMWR[1] is available on the CDC website.

All adults should receive at least one-time screening for hepatitis C, based on the 2020 revision of hepatitis C testing recommendations from the U.S. Preventive Services Task Force[2] and the CDC[3].

Figure 2. Most people newly reported with HCV during 2021–2023 were living in Southeastern Wisconsin, but rates of HCV were highest in Northern Wisconsin.

Number and rate of newly reported hepatitis C cases by county of residence, Wisconsin, 2021–2023



Wisconsin Hepatitis C Surveillance

2023 Key

1,387 cases

Rate of newly reported HCV cases was highest in people aged 30-39 years

Rate of newly reported HCV cases was highest in Northern and Northeastern regions of Wisconsin

Rate of newly reported HCV cases was highest in Native American people

Figure 3. In 2023, 1,387 new HCV cases were reported in Wisconsin (rate of 23.5 per 100,000 people). From January 2011 to December 2023, 34,072 total hepatitis C cases have been reported. In 2023, Wisconsin had a 36.5% decrease in cases based on a 5-year average.

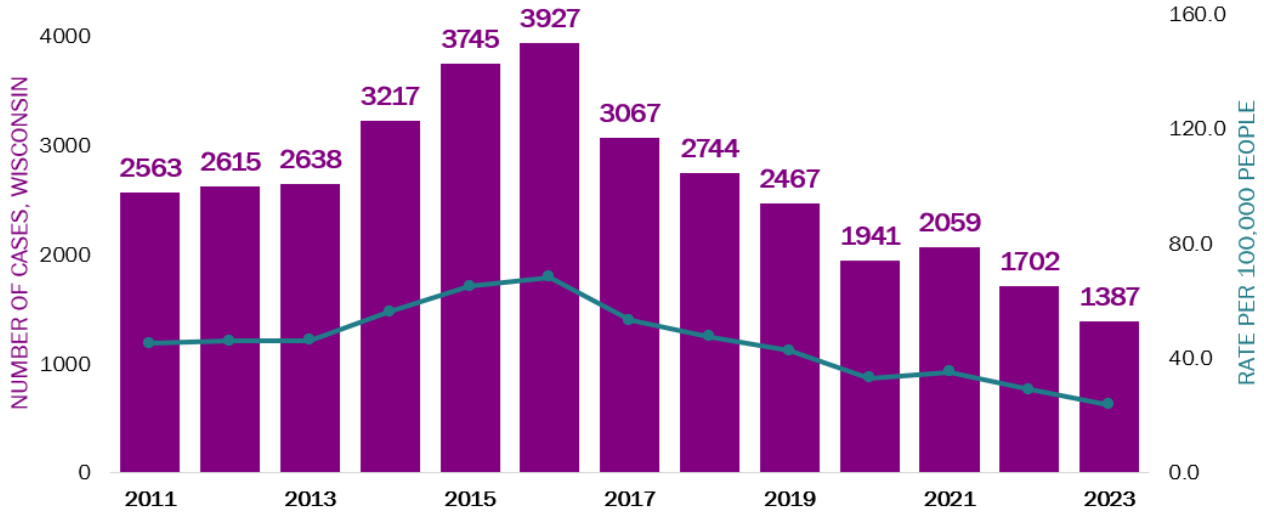
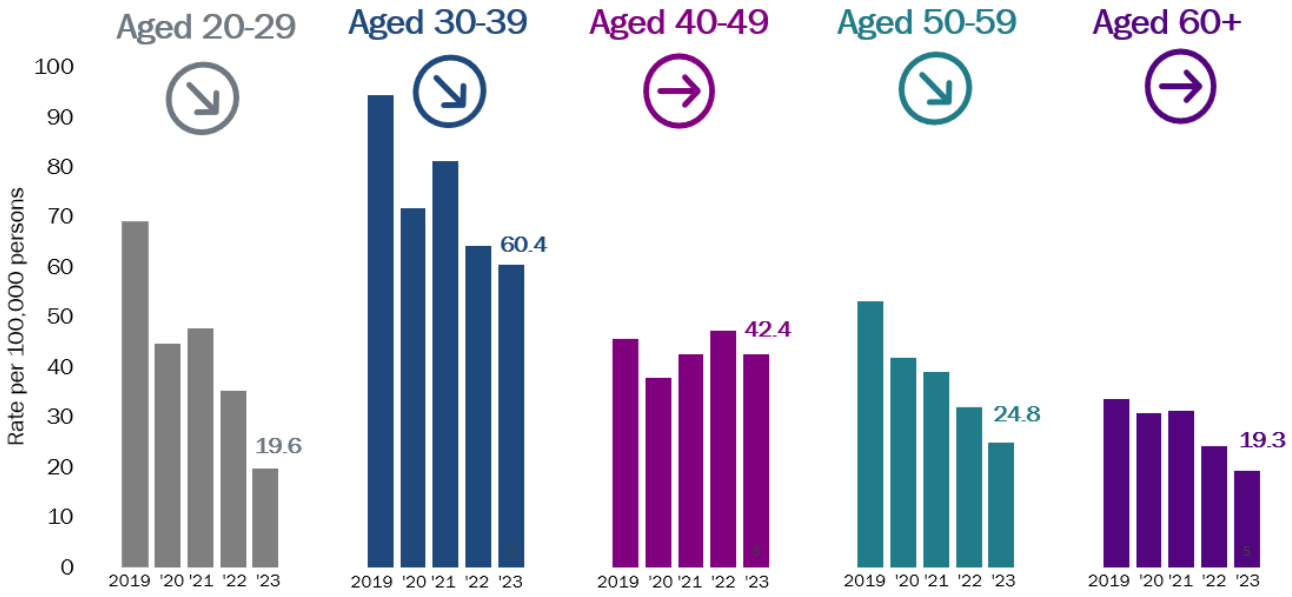
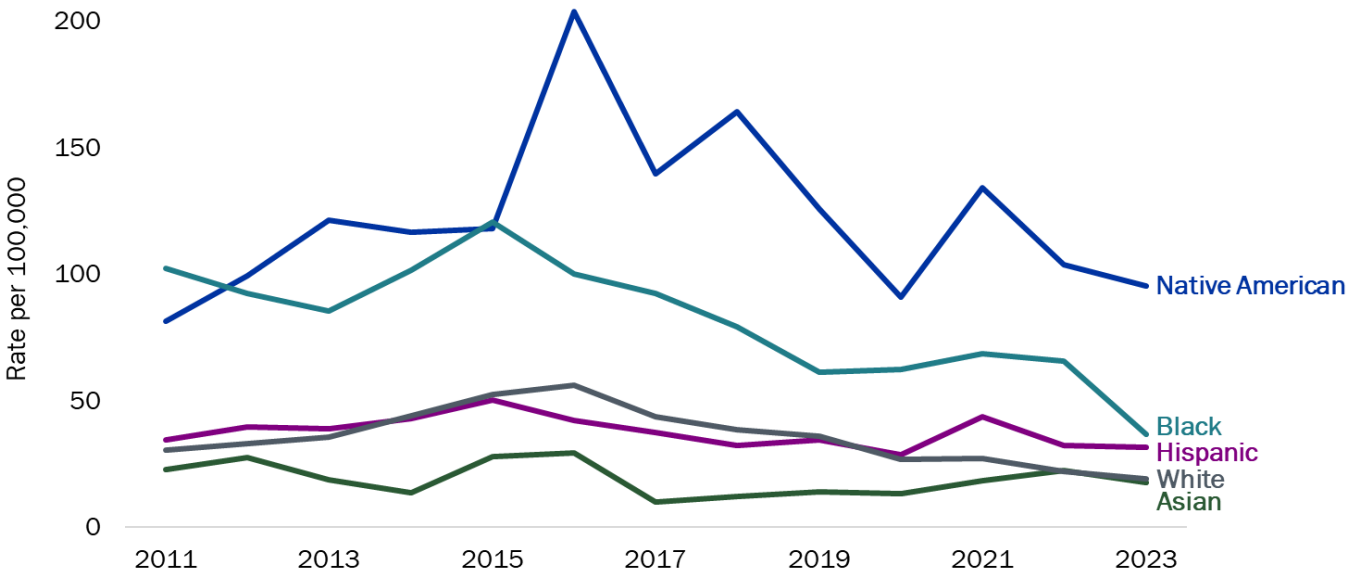


Figure 4. Over the past five years, a general decline in new cases has been seen across all age distributions based on a rate per 100,000 people. In 2023, people aged 30–39 (60.4) had the highest rate of HCV infection per 100,000 people, followed by people aged 40–49 (42.4), 50–59 (24.8), 20–29 (19.6), and 60+ (19.3).



Trends, All Cases

Figure 5. The rate of HCV per 100,000 people is highest in Native Americans, at 95.0 cases per 100,000 people. Over the past decade, the rate of HCV among Native Americans continues to fluctuate. Comparably, there has been a decrease in the rate of new HCV cases across white people (18.8 per 100,000 people), Black people (36.6 per 100,000 people), Asian people (17.3 per 100,000 people), and Hispanic people (31.2 per 100,000 people).



Trends, All Cases

Figure 6. In 2023, the burden of HCV was higher in the Northern (27.7 per 100,000) and Northeastern (22.5 per 100,000) regions of Wisconsin based on a rate per 100,000 people. In previous years, however, the burden of HCV has been highest in the Southeastern (34.9 per 100,000 in 2022 vs. 20.9 per 100,000 in 2023) region of Wisconsin.

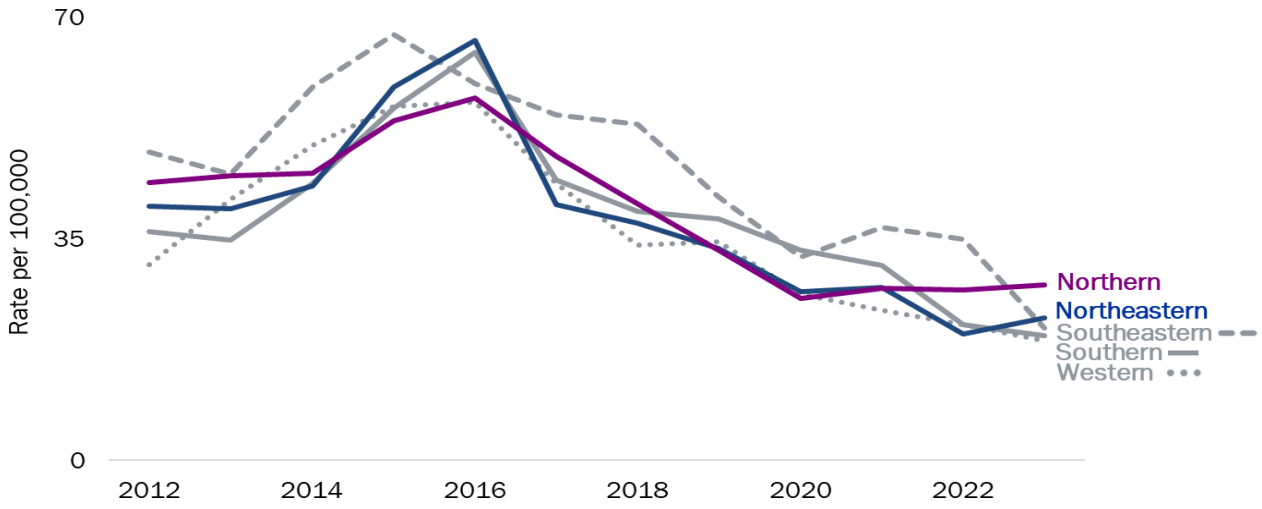


Table 1. During 2018–2023, the Southeastern region of Wisconsin had the highest number of cases.

	Northeastern	Northern	Southeastern	Southern	Western
2018	469	196	1,132	455	270
2019	420	161	887	443	275
2020	340	127	685	393	213
2021	349	135	779	364	192
2022	255	134	738	255	175
2023	287	138	441	233	154

Table 2. Based on the rate per 100,000 people, in 2023 the incidence rates in the Northern

	Northeastern	Northern	Southeastern	Southern	Western
2018	37.6	40.5	53.2	39.4	34.1
2019	33.5	33.3	41.6	38.2	34.6
2020	26.7	25.6	32.1	33.3	26.2
2021	27.4	27.2	36.8	30.9	23.7
2022	20.0	26.9	34.9	21.5	21.4
2023	22.5	27.7	20.9	19.7	18.9

Demographics, All Cases

Figure 7. In 2023, most newly reported cases of hepatitis C in Wisconsin were among white people, but the new case rate was highest among Native American people, representing a 6.5x higher rate.

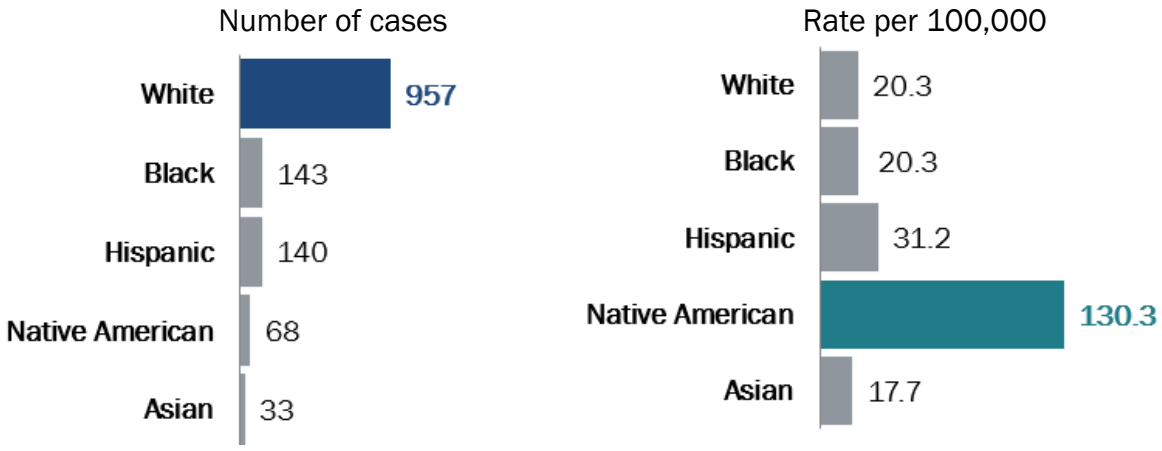


Figure 8. People aged 40 years and older (n=777) had the highest incidence (56%) of HCV in Wisconsin in 2023.

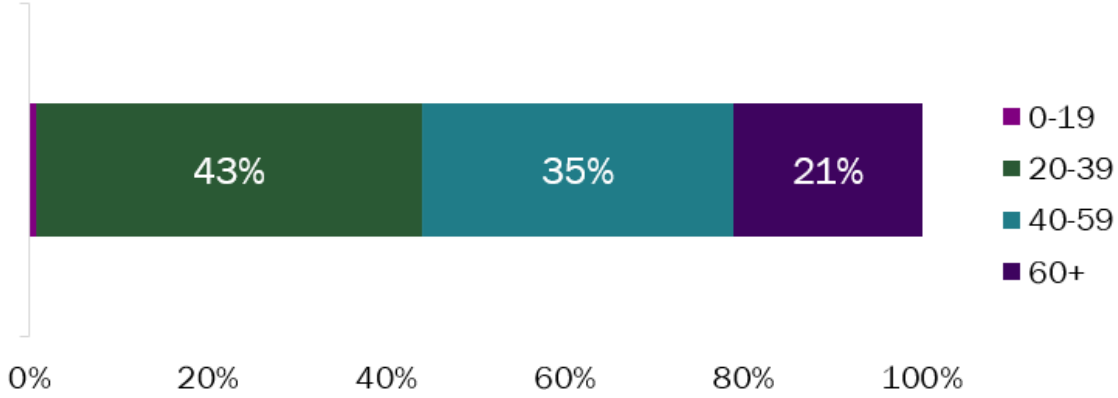


Figure 9. In 2023, 58% of all new HCV cases among females were in females of childbearing age (aged 15-44). The estimated rate of mother-to-child transmission is approximately 6%, and the only preventive intervention is to treat HCV prior to becoming pregnant.

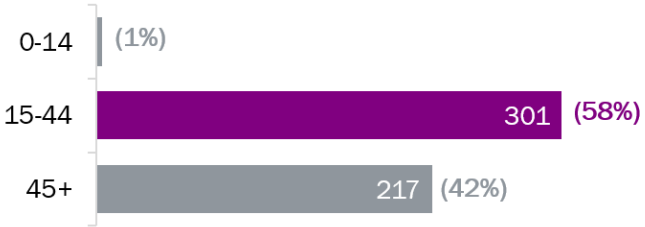
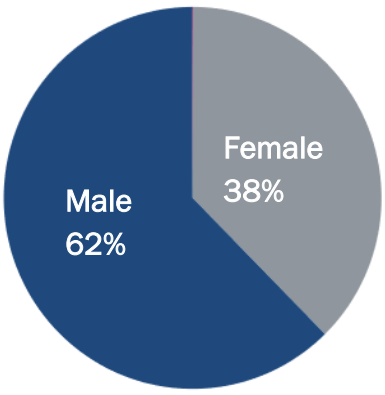


Figure 10. In 2023, 62% of newly reported HCV cases were male.



Trends, Acute Cases

Figure 11. In 2023, acute hepatitis C represented 6% of all new cases reported across the state of Wisconsin. This percentage has increased over time.

'Acute' cases of hepatitis C are those which have sufficient clinical and laboratory evidence to indicate the infection occurred within the past 12 months. Cases are subclassified as 'Confirmed' (hepatitis C RNA detected) or 'Probable' (no hepatitis C RNA result reported). The complete case definition can be found at the National Notifiable Diseases Surveillance System, Hepatitis C, Acute.

Monitoring acute (initial infection or the 12-month period following exposure to the virus) hepatitis C cases helps to determine geographic and demographic determinations to examine where HCV is commonly-occurring and who is most affected. These efforts help inform state, local, and Tribal prevention activities. DHS identifies acute cases from provider and/or laboratory reports. Most people are contacted by Local and Tribal Health Departments (LTHDs) for interviews. These interviews provide disease education and some navigation services, and they also help improve our understanding of disease burden and possible exposures.

Demographics, Acute Cases

Figure 12. In 2023, most newly reported cases of acute hepatitis C in Wisconsin were among white people, but the new case rate was highest among Native American people, representing a 7.4x higher rate. *There were no reported Acute HCV cases in Asian or Black people.

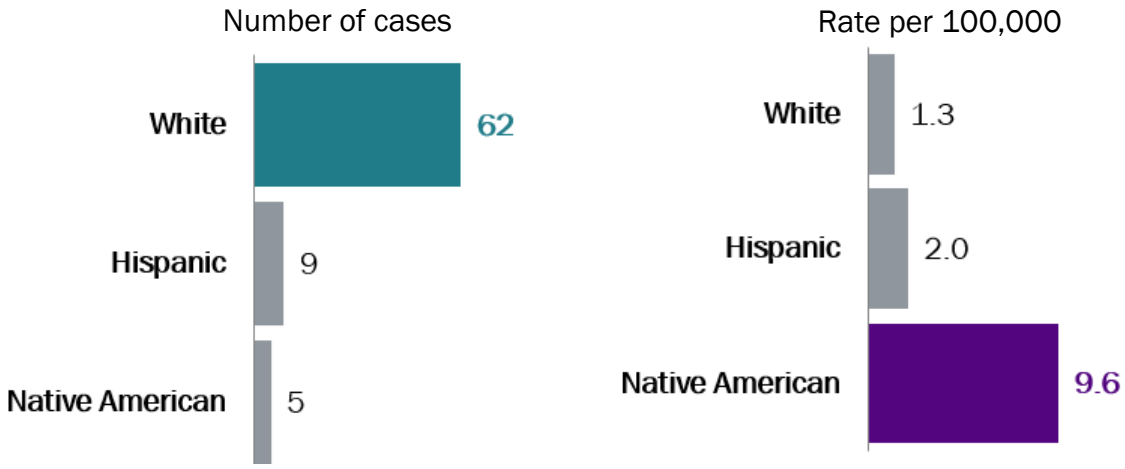


Figure 13. In 2023, people aged 20-39 (n=42) had the highest incidence (53%) of acute HCV in Wisconsin.

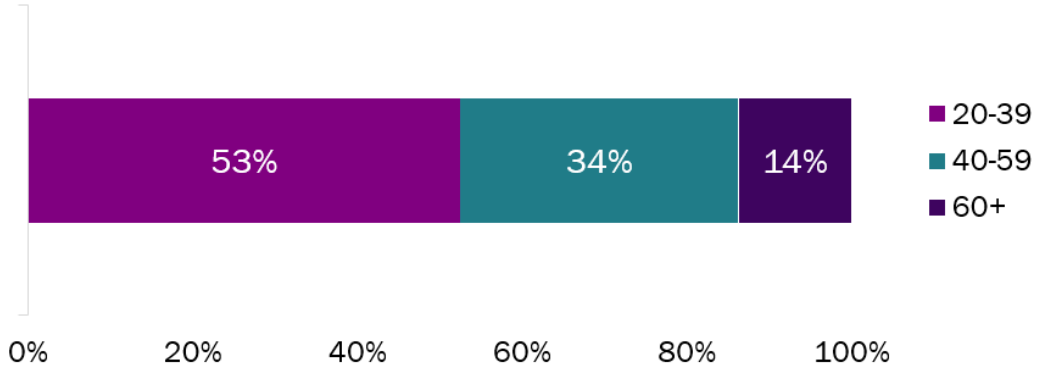


Figure 14. In 2023, 68% of all new acute HCV cases among females were in females of childbearing age (aged 15–44). The estimated rate of mother-to-child transmission is approximately 6%, and the only preventive intervention is to treat HCV prior to becoming pregnant.[4]

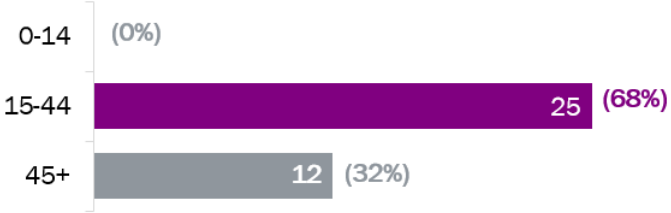
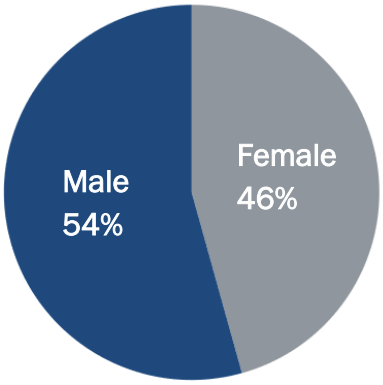


Figure 15. In 2023, 54% of newly reported acute HCV cases in Wisconsin, were male.



Exposures, Acute Cases

Figure 16. Over the past five years, injection drug use (IDU) has been the most reported exposure among acute HCV cases.

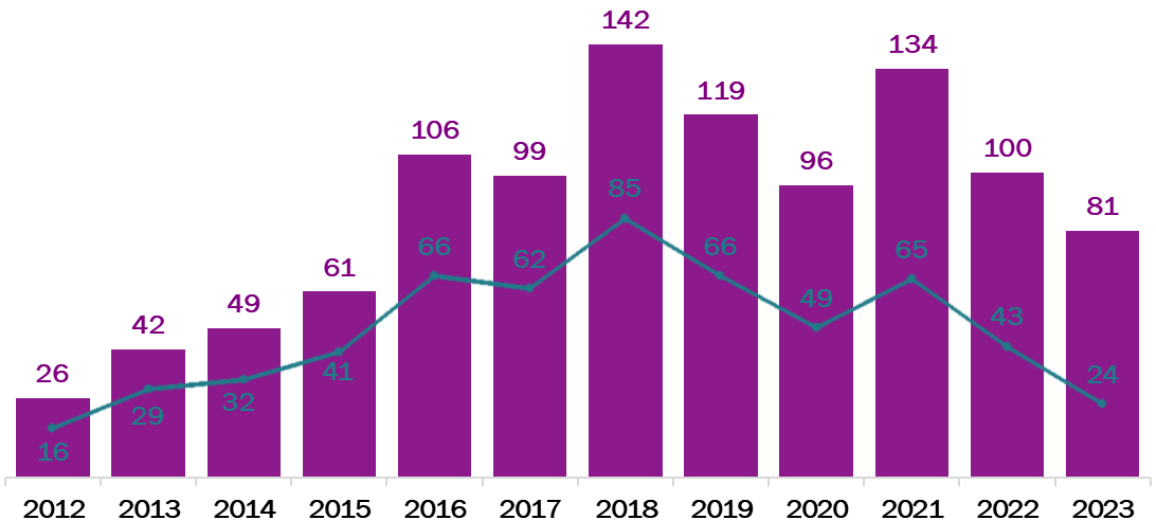
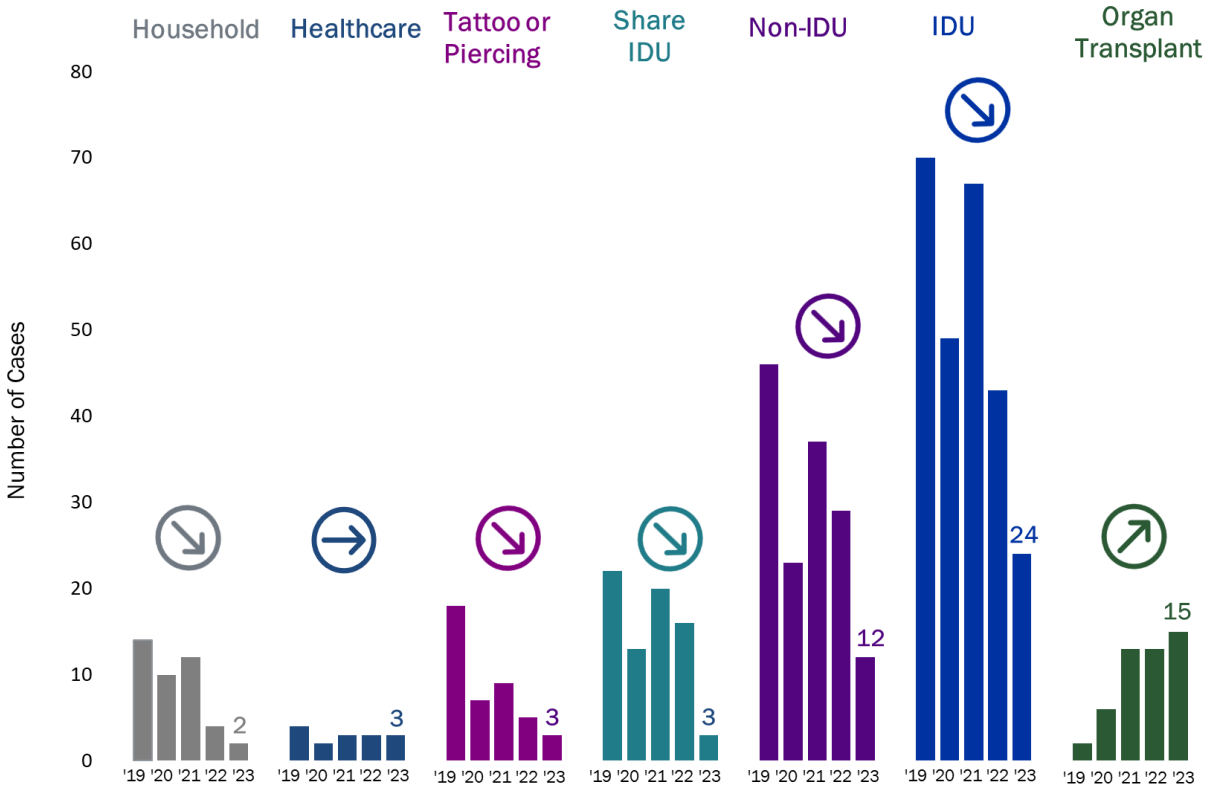


Figure 17. Reports of organ transplantation of hepatitis C–positive organs has increased 76% over the previous four-year average.



Perinatal Cases, 2023

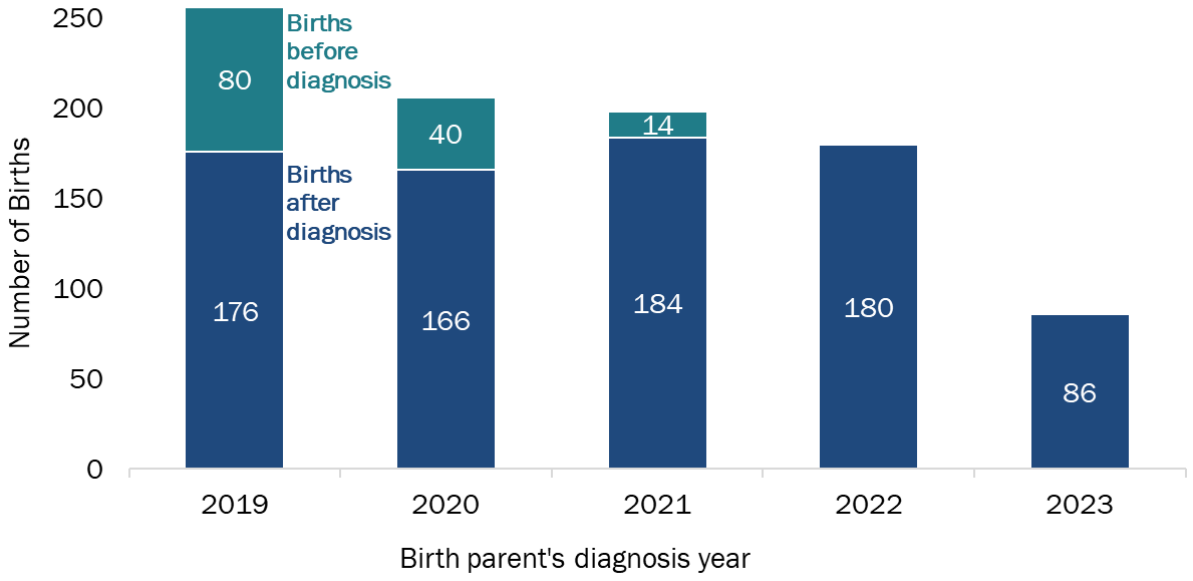
Since 2018, perinatal hepatitis C has been reportable to public health agencies in Wisconsin. As the number of women of childbearing age with hepatitis C has increased, the number of infants at risk of perinatal hepatitis C infection has also increased. An estimated 6% of infants born to people living with hepatitis C will be infected around the time of birth.

Since April 2020, the Centers for Disease Control and Prevention (CDC), the American College of Obstetricians and Gynecologists, and the U.S. Preventive Services Task Force (USPSTF) recommend that all pregnant people receive hepatitis C screening during each pregnancy. Infants born to a person living with hepatitis C often do not receive the appropriate testing to determine if they've developed perinatal infection. Therefore, the number of perinatal cases reported to public health is an underestimation of the number of true perinatal cases each year. HCV RNA testing among perinatally exposed infants is recommended at age 2 to 6 months to promote early diagnosis and linkage to care for this vulnerable group.

In 2023, three children met the case definition of having perinatal hepatitis C infection, which includes having RNA positive results between the ages of 2 and 36 months.

Vital Records, 2019–2023

Figure 18. 644 females have been diagnosed with hepatitis C since 2019, and they have given birth to a total of 926 infants. Of these 926 infants who have been potentially exposed to hepatitis C, 86% of infants were born after the parent was diagnosed with HCV.



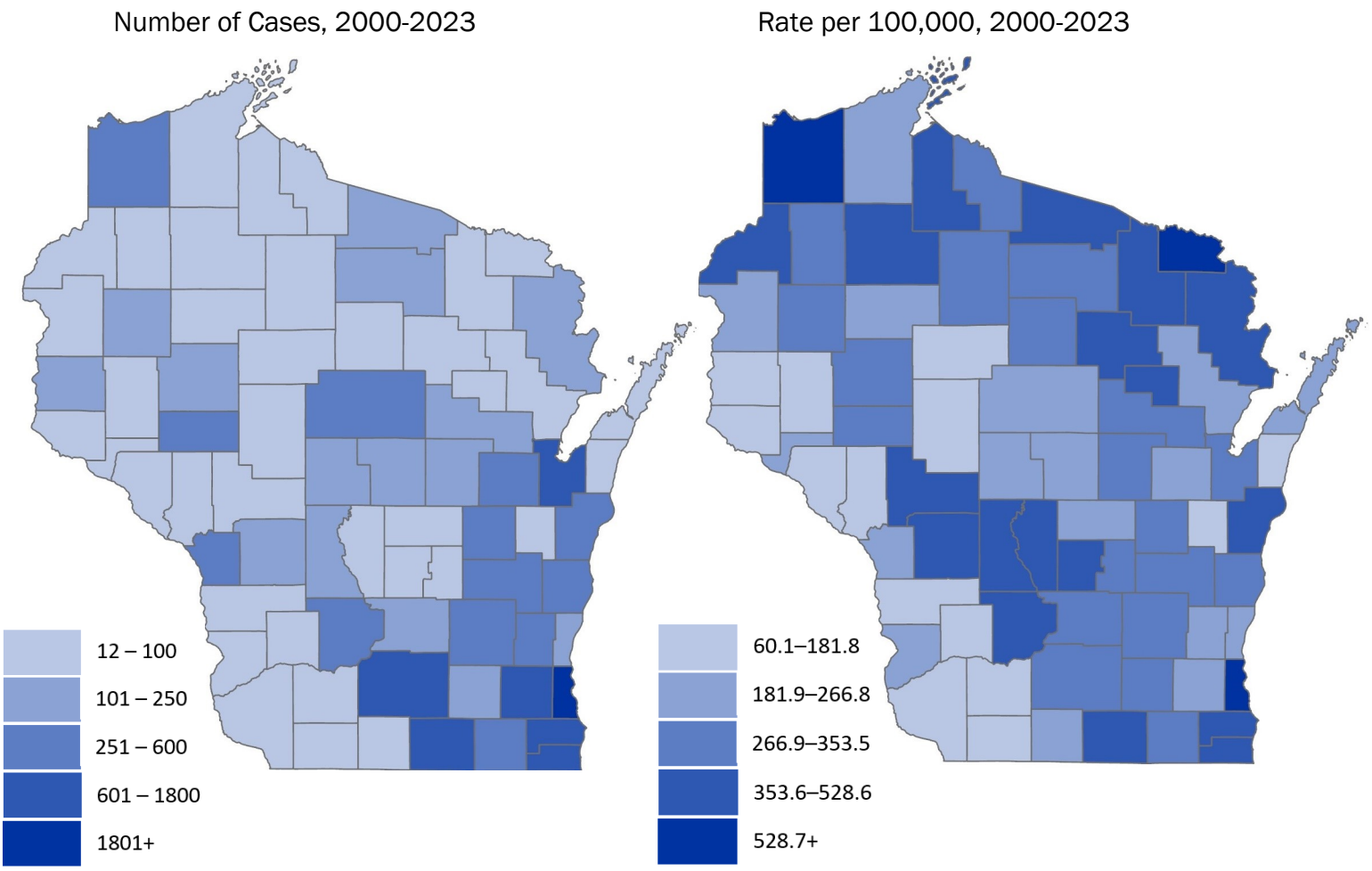
Notes: Vital records data contains preliminary elements and is subject to change.

Wisconsin Prevalence Estimates

National prevalence estimates suggest that 2.4 million people aged 18 years and older in the U.S. (1% of all adults) are living with chronic hepatitis C infection.[7,8] However, it is estimated that only 56% of people living with hepatitis C are aware of their diagnosis. This suggests that 44% of people living with hepatitis C in the U.S. have not been tested, diagnosed, or reported to public health. As a result, the true number of Wisconsin residents with hepatitis C is not known. Using methods described elsewhere,[7] DHS estimates that approximately 47,000 Wisconsin residents aged 18 and older (~1.0% of Wisconsin adults) are living with chronic hepatitis C.

Although the true number of people living with hepatitis C in Wisconsin is not known, each year DHS publishes the prevalence of *reported* hepatitis C in Wisconsin. Prevalence of reported hepatitis C is calculated by adding together all the cases reported to public health during 2000 through 2023, subtracting people matched to state death records, and subtracting people whose last reported hepatitis C RNA result was negative, indicating they had cleared the infection naturally or through treatment. Using this method, at the end of 2023, 23,656 Wisconsin residents of all ages (0.40% of all Wisconsin residents) and 23,249 Wisconsin residents who were age 18 or older in 2023 (0.39% of Wisconsin adults) were living with hepatitis C (see Appendices—Table 2).

Figure 19. Hepatitis C Prevalence in WI, 2000-2023. Reported prevalence data for people aged 18 and older are presented below by county of residence. All counties had a prevalence above 0.1%.



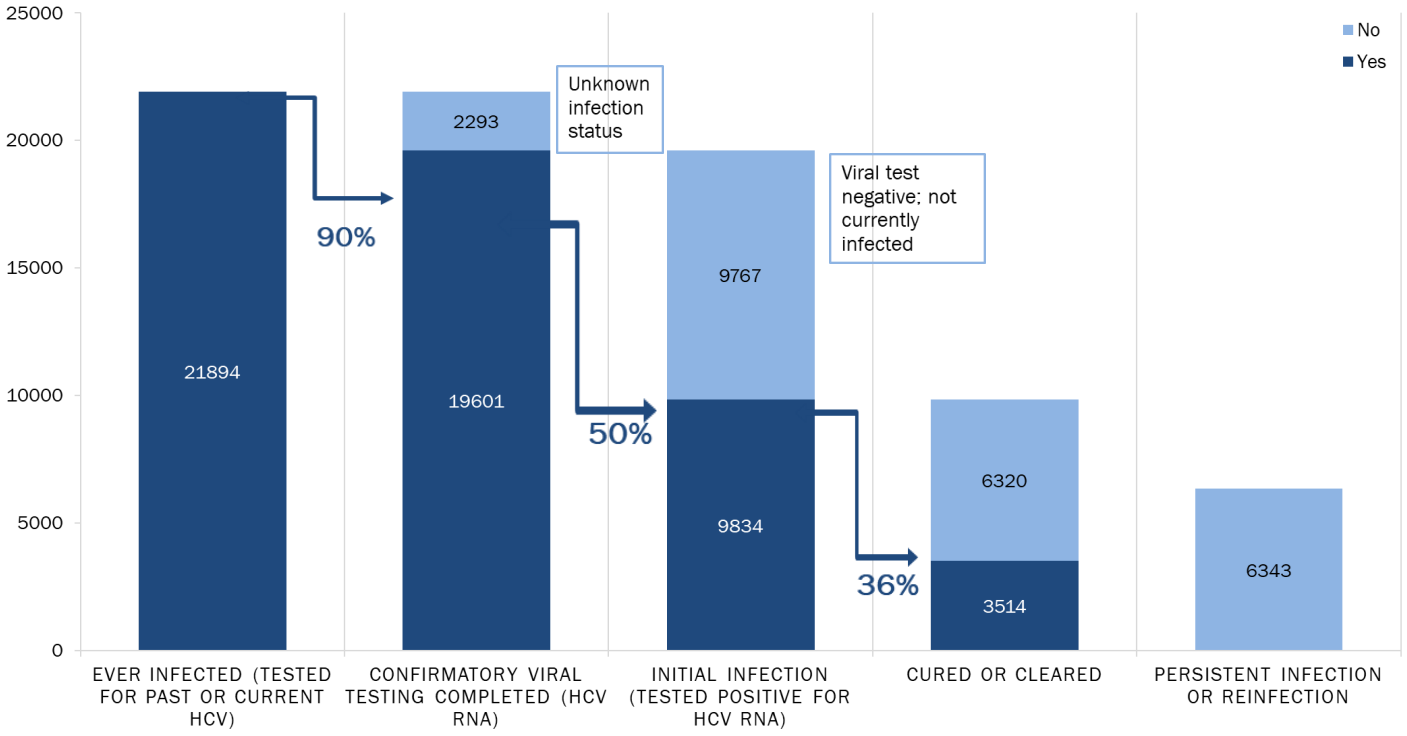
Wisconsin HCV Continuum of Care, 2018-2023

The laboratory-based hepatitis C continuum of care visualizes the progress of people through each step in accessing care, from diagnosis to viral clearance.

Direct-acting antivirals (DAAs) that cure HCV have been available since 2014, yet few people receive treatment in a timely manner. Timely treatment is crucial to prevent liver damage and save lives. In 2022, CDC released new findings from a Vital Signs report showing that only about 1 in 3 people with insurance get treatment.[9]

Negative RNA results have been reportable to the Wisconsin Department of Health Services since April 2017, so all data in the care cascade reflects data from January 2018—December 2023. The data shown here underestimates the number and percentage of people who received RNA confirmatory testing, subsequent RNA testing, and negative RNA results at last test.

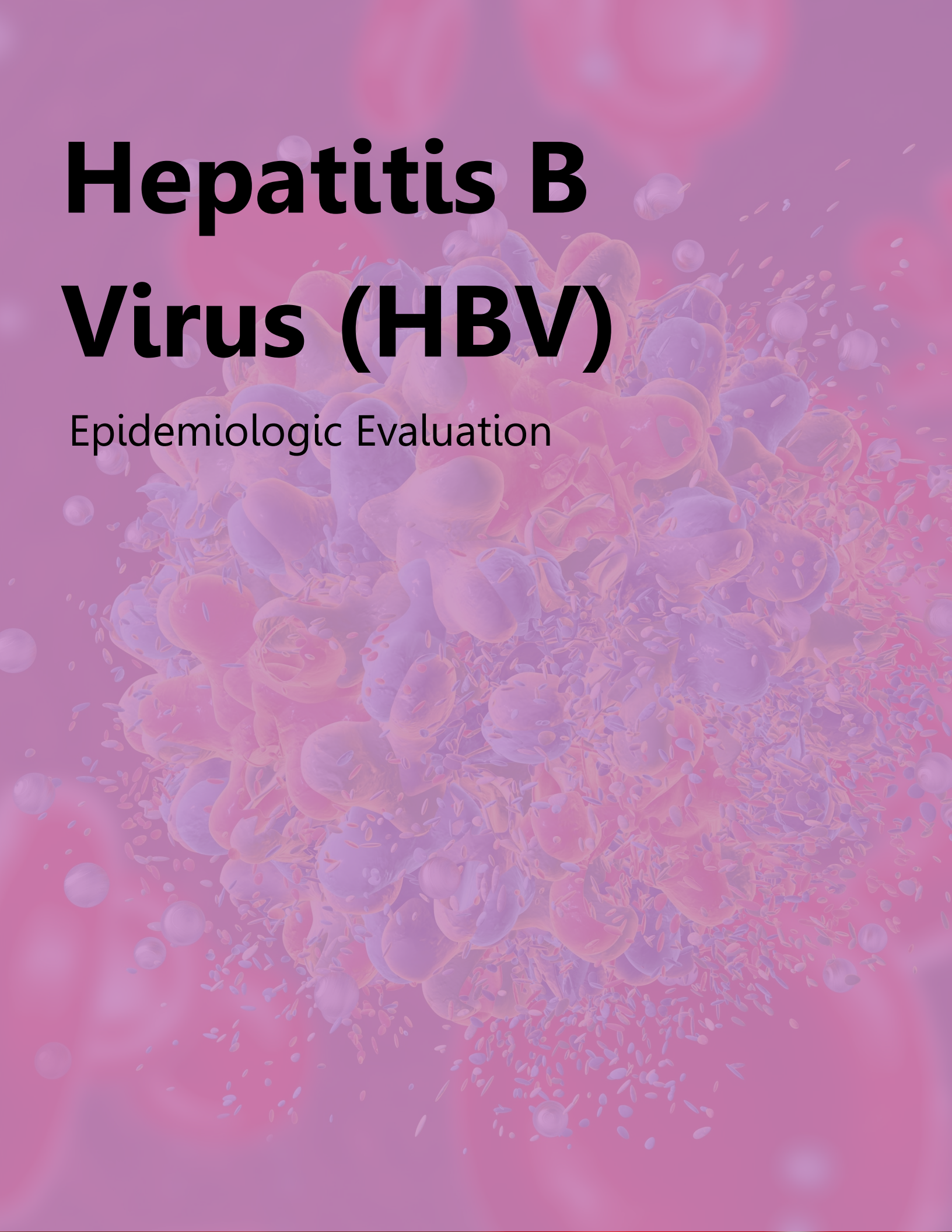
Figure 20. HCV Continuum of Care, 2018-2023



What the cascade shows	Opportunities for intervention
Most (90%) of the 21,894 people in Wisconsin who were ever infected with hepatitis C since January 2018 were virally tested to determine current infection status.	2,293 people in Wisconsin have not completed hepatitis C RNA viral diagnostic testing. These people have an undetermined current infection status.
Of the 9,834 people whose first RNA test was positive, 36% are no longer infected with hepatitis C.	More than 6,320 people in Wisconsin have not been cured or cleared of infection (64%).
Of the 3,514 people who have been cured or cleared of the virus in Wisconsin, 23 people were reinfected.	There are 6,343 known individuals in Wisconsin who need medical services to cure their HCV infection.

Hepatitis B Virus (HBV)

Epidemiologic Evaluation



Background

This report by the Wisconsin Department of Health Services (DHS) Adult Viral Hepatitis Unit (AVHU) is a high-level summary of the epidemiology of hepatitis B virus (HBV) in the state of Wisconsin. It serves to identify where enhanced attention and resources are needed to prevent, diagnose, and treat HBV.

Hepatitis B Surveillance – Health Equity Key Takeaways

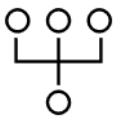
In 2023, 384 cases of hepatitis B were newly reported to DHS, including one perinatal, seven acute, and 376 newly reported chronic cases. Chronic cases accounted for 98% of all newly reported cases, and acute cases for 1.8%. Perinatal cases accounted for less than 1% of all reports; however, perinatally-acquired hepatitis B is largely preventable with treatment management for the birth parent and post-exposure prophylaxis for the infant at birth. The total number of newly reported cases in 2023 was 38% less than the number of cases reported in 2022 and was 10% more than the number reported in 2021.

Rate of new hepatitis B cases is highest in Asian people

In 2023, the rate of new hepatitis B cases among Asian people was 31 times and 4.4 times greater than the rate of new hepatitis B cases among white and Black people, respectively.

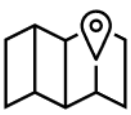
People who may become pregnant remain a key priority population to combat perinatal transmission

55% of all females diagnosed with HBV infection were of reproductive age (15–44). In the absence of preventive interventions, the estimated rate of parent-to-child HBV transmission is approximately 40% when the birthing person is HBsAg-positive.



People aged 30-39 have the highest rate of HBV in Wisconsin

In 2023, people aged 30–39 had the highest rate of HBV per 100,000 people (13.1), followed by people aged 40–49 (10.3 per 100,000), 50–59 (7.4 per 100,000), 20–29 (6.9 per 100,000), 60+ (6.5 per 100,000), and 0–19 (0.36 per 100,000).



Specific Wisconsin counties remain disproportionately impacted

Over the past three years, the highest numbers of reported cases in Wisconsin were located in Milwaukee County (n=349), Dane County (n=173), and Waukesha County (n=49). However, the highest rate of HBV per 100,000 people include Kewaunee County (14.6 per 100,000), Monroe County (14.5 per 100,000), Florence County (14.3 per 100,000), and Milwaukee County (12.6 per 100,000).

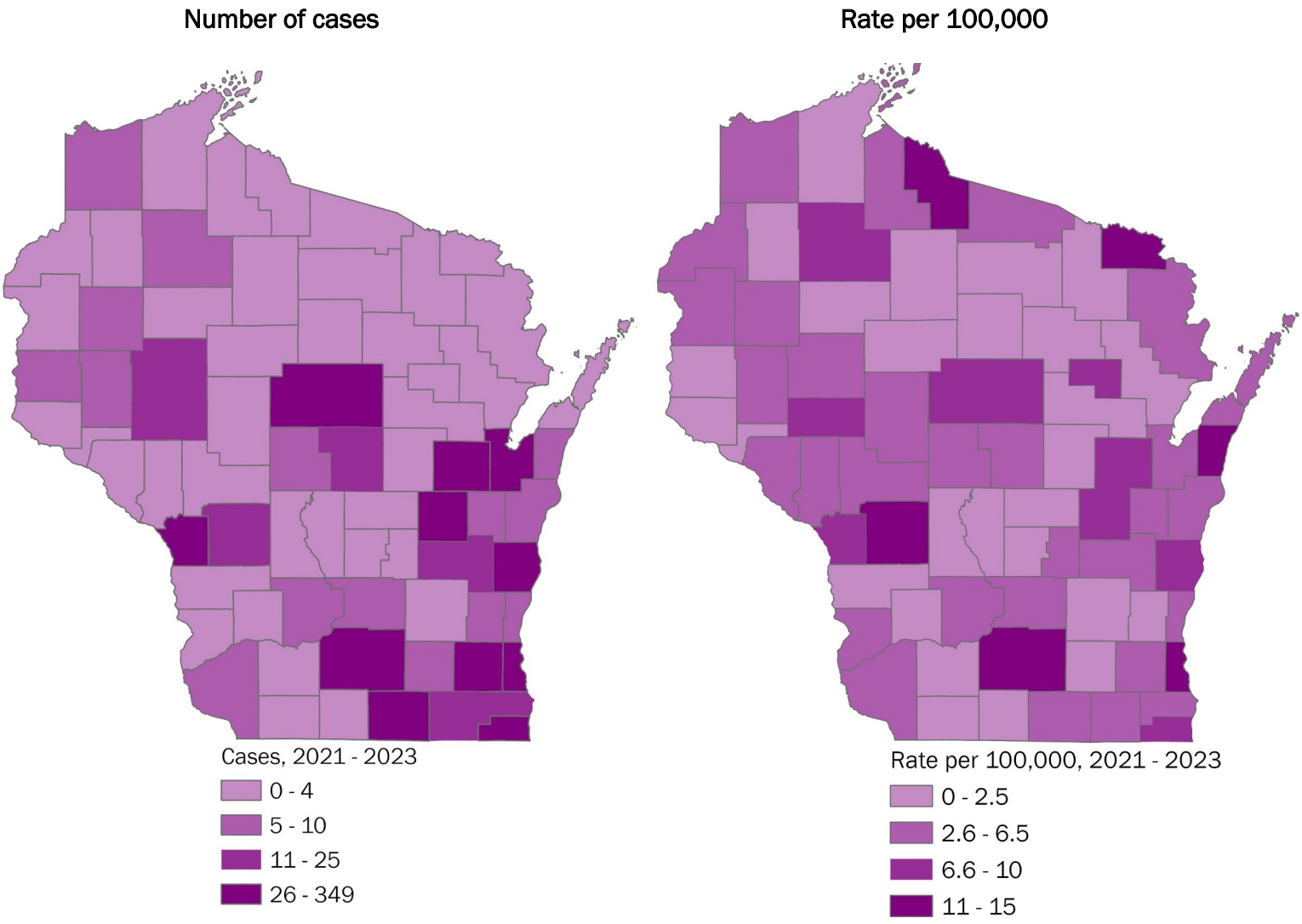
Wisconsin Hepatitis B Surveillance

Over the last five years, 68% of HBV cases reported in Wisconsin were classified as 'Probable,' indicating incomplete testing. As of March 2023, CDC recommends one-time HBV screening of adults utilizing the triple panel (HBsAg, anti-HBc, anti-HBs).[10]

Hepatitis B virus (HBV) infection can lead to substantial morbidity and mortality. While treatment is not curative, effective vaccines are widely available to prevent hepatitis B infection. Despite reductions in hepatitis B incidence in the past four decades due to vaccination coverage, immunization among adults has been suboptimal. Wisconsin continues to manage and investigate hundreds of HBV cases annually. ACIP recommends universal HBV vaccination to all adults aged 19-59 to increase vaccination coverage and decrease disease incidence.[11]

Figure 21. Most HBV cases reported during 2021–2023 were reported in Southeastern Wisconsin, but rates were highest in Southern Wisconsin.

Number and rate of newly reported hepatitis B cases by county of residence, Wisconsin, 2021–2023



Wisconsin Hepatitis B Surveillance

2023 Key Points

384 cases

30–39 year olds had the highest rate of HBV per 100,000

Rate of newly reported HBV cases was highest in the Southern and Southeastern regions of Wisconsin

Rate of newly reported HBV cases was highest in Asian people

Figure 22. From January 2012 to December 2023, **4,714 total hepatitis B cases** have been reported across the state of Wisconsin. The number of reported hepatitis B cases has remained largely unchanged, only decreasing 3.2% in 2023 based on a 5-year average.

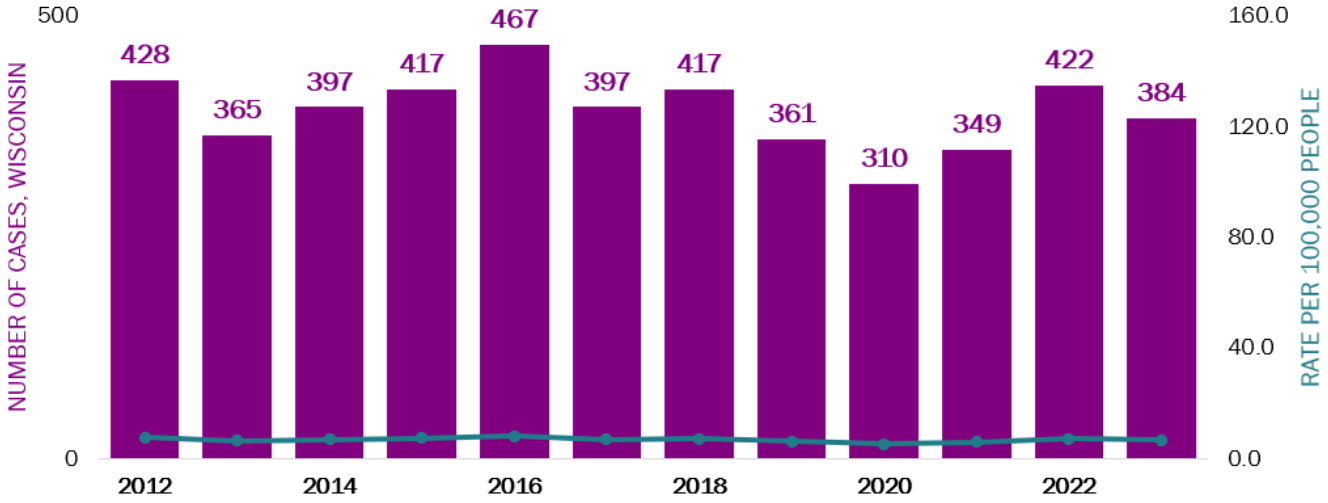
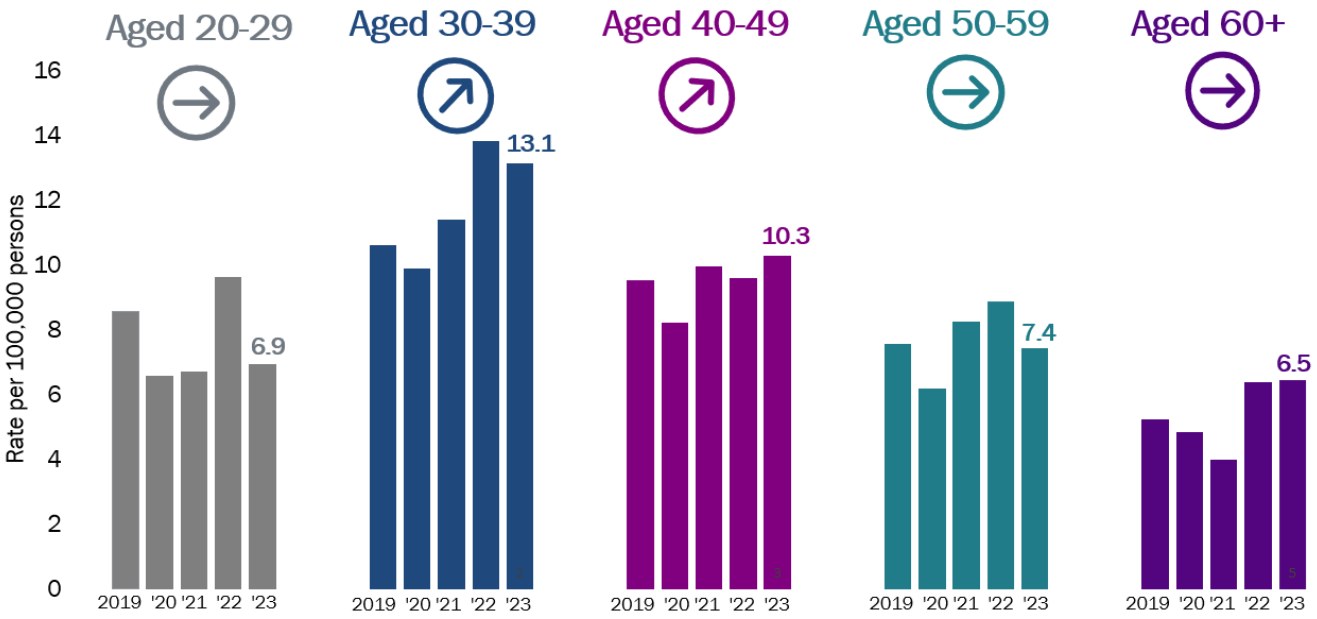


Figure 23. Over the past five years, **people aged 30–39 (13.1 per 100,000)** have had the highest rate of HBV per 100,000 people in the state of Wisconsin, followed by **people aged 40–49 (10.3 per 100,000)**, **aged 50–59 (7.4 per 100,000)**, aged 20–29 (6.9 per 100,000), and **aged 60+ (6.5 per 100,000)**.



Trends, All Cases

Figure 24. The burden of HBV is disproportionately higher in the Southern (7.51 per 100,000) and Southeastern (7.47 per 100,000) regions of Wisconsin based on a rate per 100,000 people.

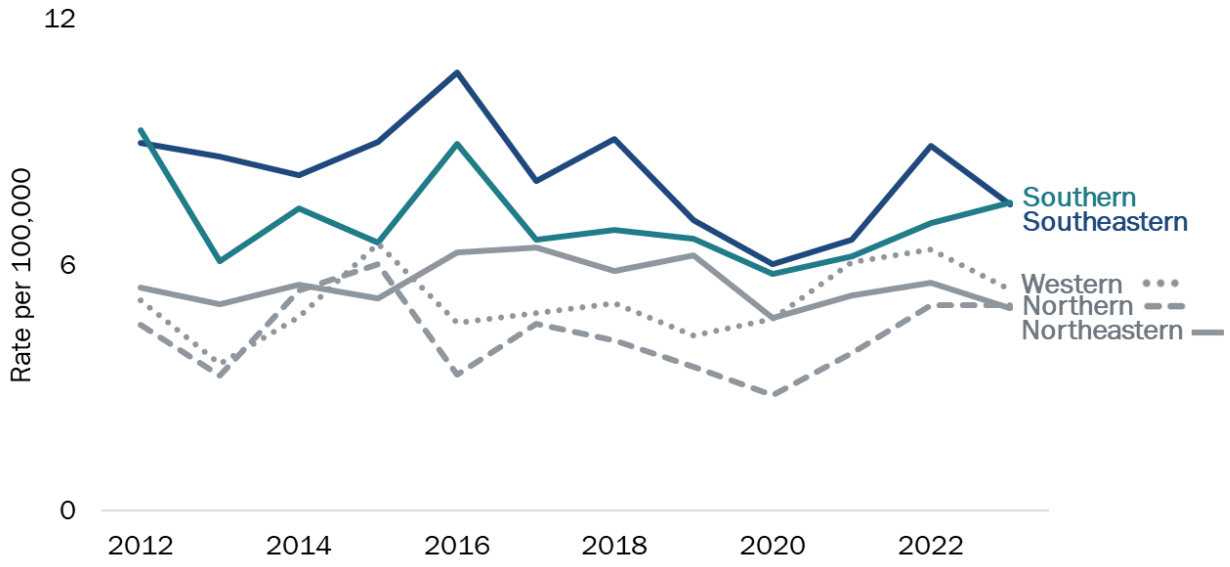
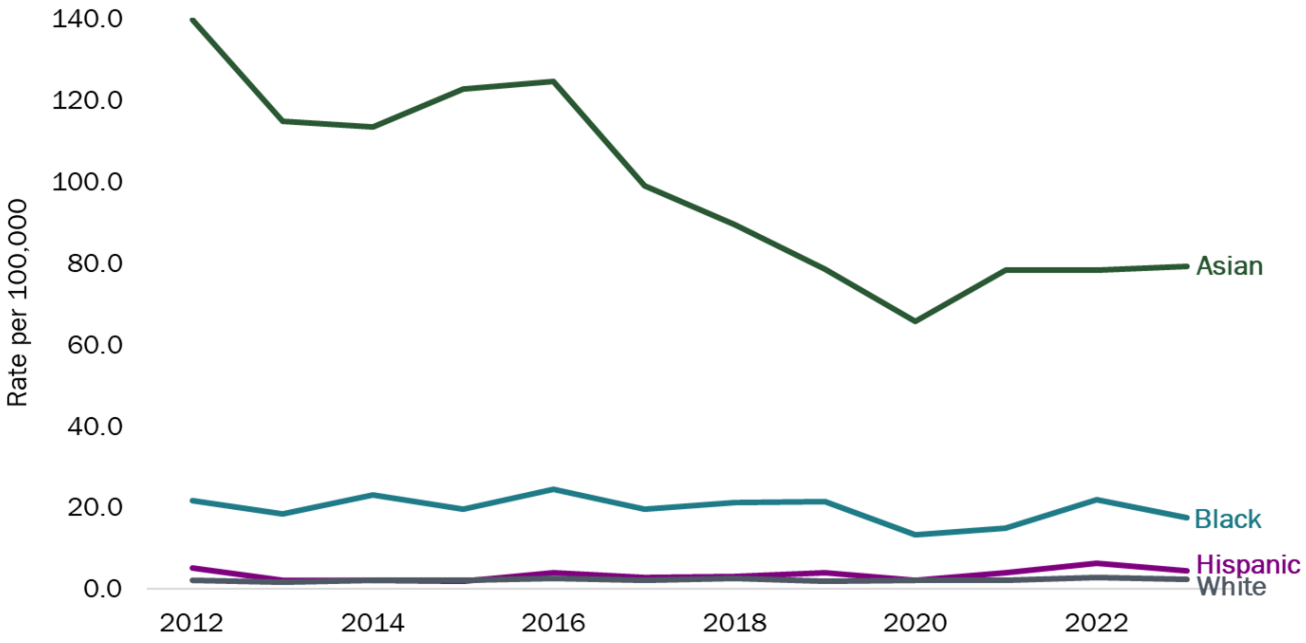


Figure 25. In 2023, the rate of HBV per 100,000 people is highest in Asian people at 79.2 HBV cases per 100,000 people. There is a decrease in the rate of new HBV cases in Black people (17.4 per 100,000 people) and an increase in Hispanic people (4.5 per 100,000 people). *There were no reported HBV cases in Native American people.



Demographics, All Cases

Figure 26. In 2023, the incidence and rate per 100,000 were both highest among Asian people, representing a 31x and 4.4x higher rate than in white and Black people, respectively. *There were no reported cases of HBV in Native American people.

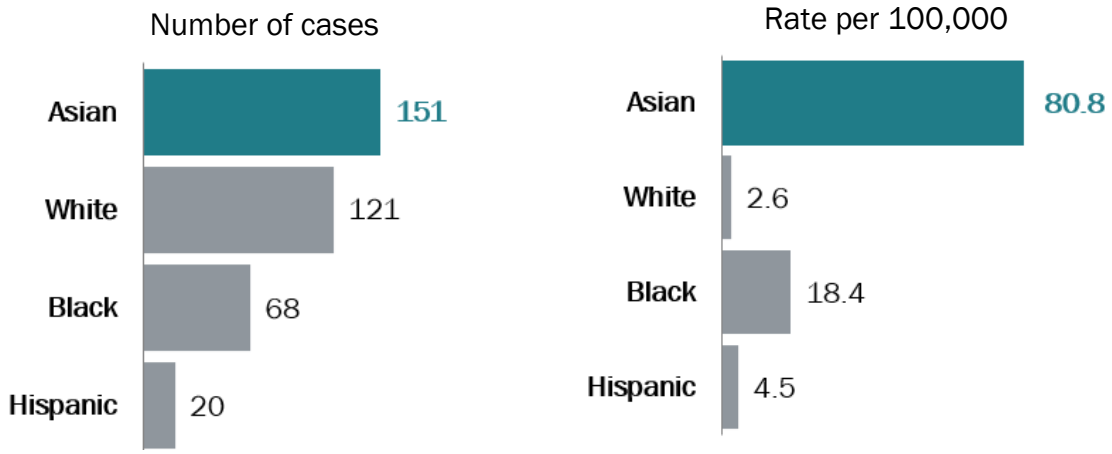


Figure 27. People aged 20–39 (n=151) had the highest incidence (39%) of HBV in Wisconsin in 2023; however, the majority of cases were among people older than 39 years of age (n=226).

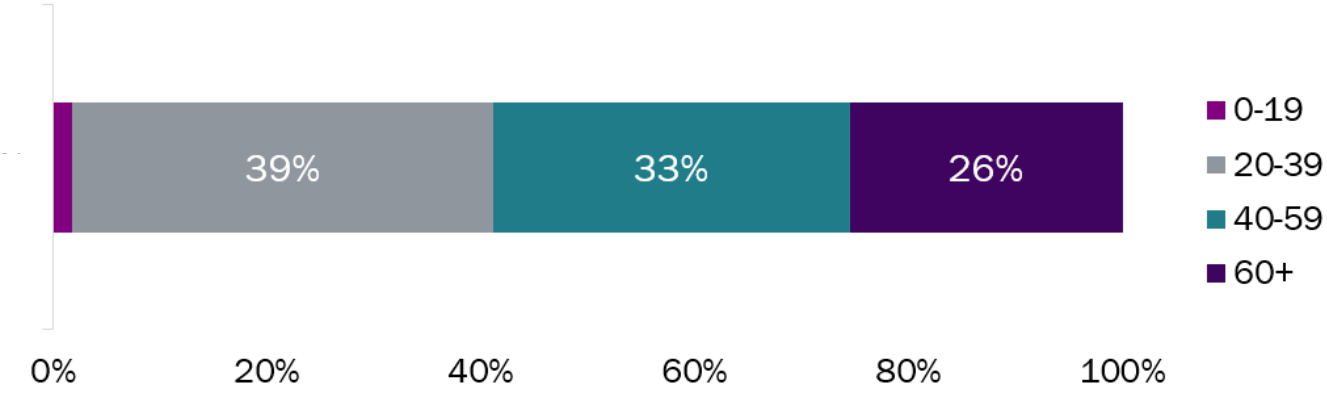
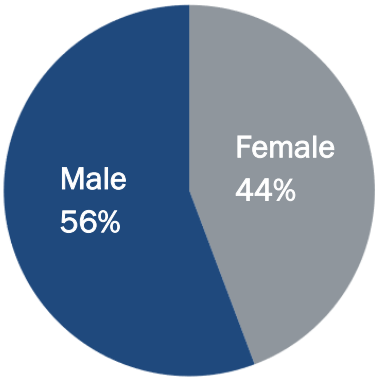


Figure 28. In 2023, 55% of females in Wisconsin affected by HBV were of childbearing age. In the absence of preventive interventions, the estimated rate of parent-to-child HBV transmission is approximately 40% when a birthing person is HBsAg-positive.[12]

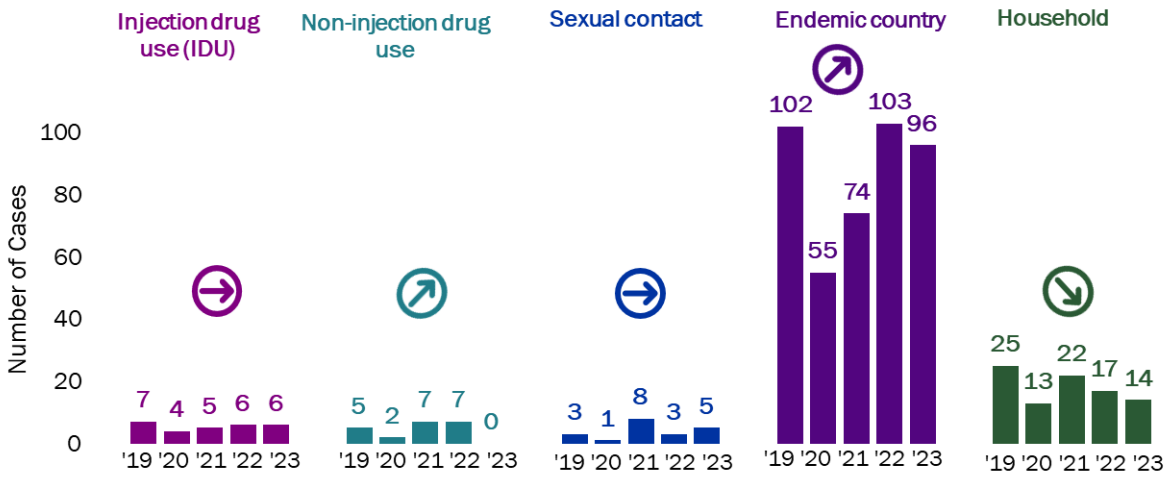
Figure 29. In 2023, 56% of people in Wisconsin with HBV were male.



Exposures, All Cases

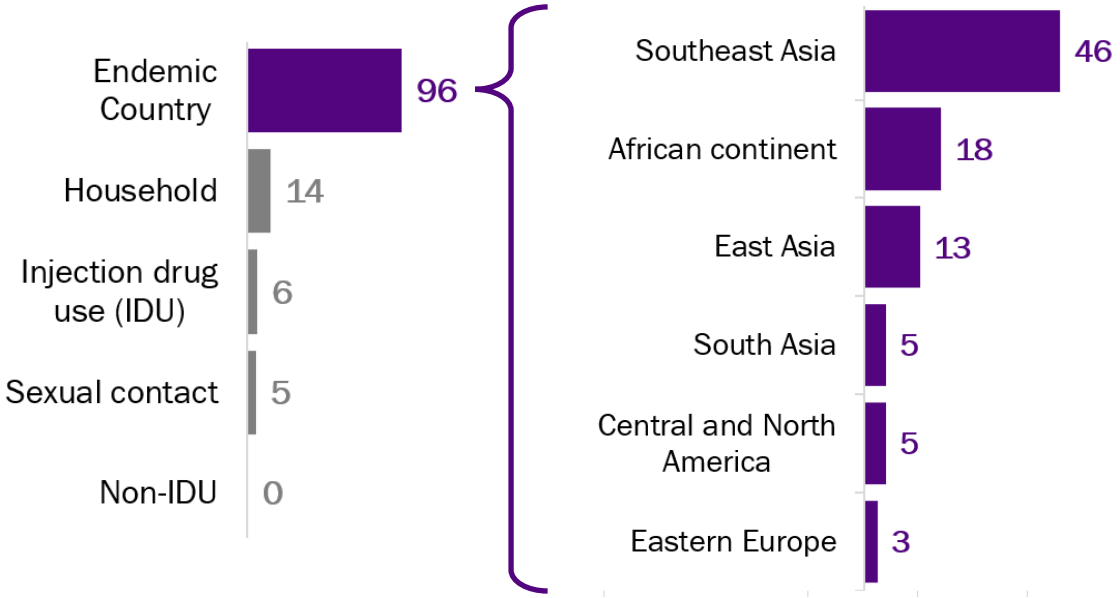
Among risk behaviors and exposures identified in Wisconsin in 2023, country of origin was most commonly reported (73% of the 131 cases for which endemic country information was available), followed by household contact (34% of the 41 cases for which information was available) and sexual contact (19% of the 26 cases for which information was available).

Figure 30. Primary exposures of Hepatitis B over time.



The global burden of hepatitis B disproportionately affects people who may have immigrated from sub-continents within Africa and Asia, due to lack of access to universal infant vaccination and antiviral prophylaxis, underdiagnosis, and low screening and treatment rates in low-income regions.

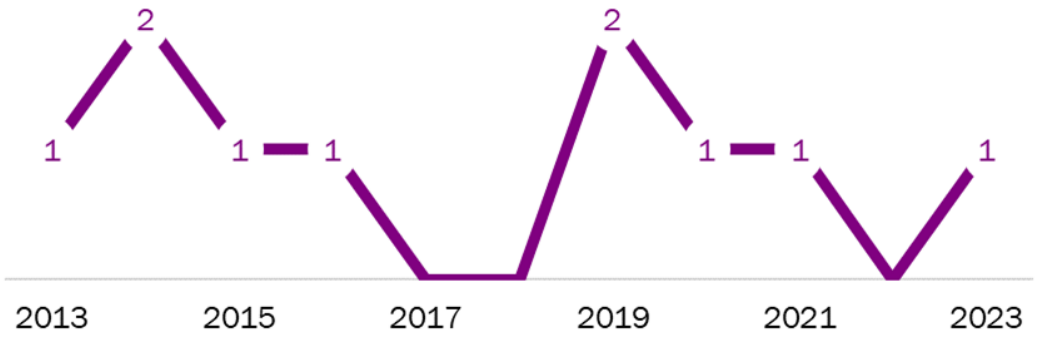
Figure 31. In 2023, 79% of all exposures to hepatitis B were related to country of origin.



Perinatal Cases

Hepatitis B can be transmitted from a pregnant person with hepatitis B to an infant during and after delivery. In the absence of preventive interventions, the estimated rate of parent-to-child HBV transmission is 40% when a birthing person is HBsAg-positive.

Figure 32. In 2023, one child met the case definition of having perinatal hepatitis B infection.



The Advisory Committee on Immunization Practices (ACIP) recommends universal hepatitis B vaccination within 24 hours of birth, followed by completion of the vaccine series. [13]

Wisconsin HBV Prevalence Estimates

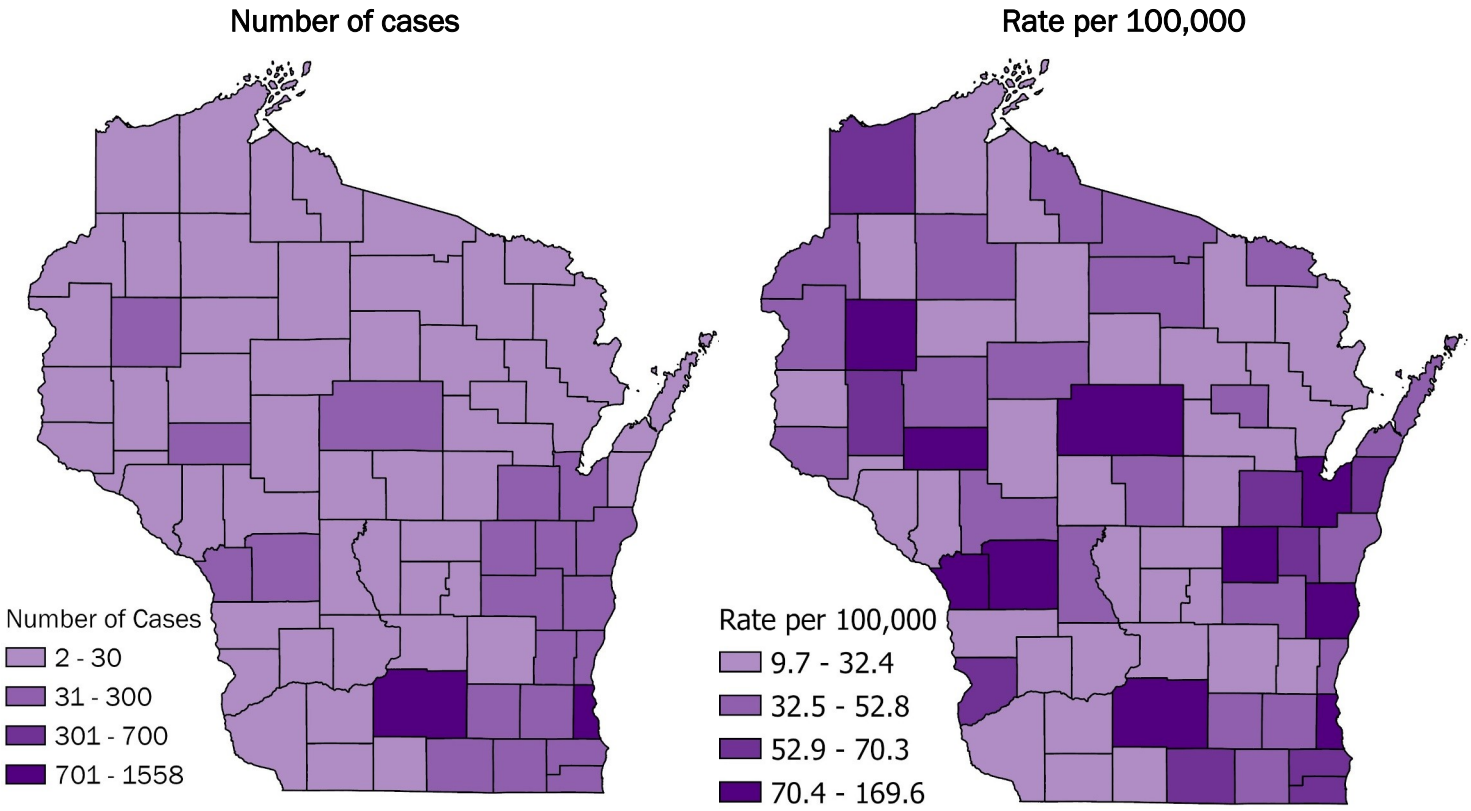
National prevalence estimates suggest that 0.2% of the U.S. population aged 6 years and older are estimated to have HBV infection; of these, 50% were aware of their infection.[14]

This suggests that 50% of people living with hepatitis B in the U.S. have not been tested, diagnosed, or reported to public health. As a result, the true number of Wisconsin residents with hepatitis B is not known. Using methods described elsewhere,[7] DHS estimates that approximately 11,100 Wisconsin residents (~0.02% of Wisconsinites aged 6 and older) are living with hepatitis B.

Prevalence of reported hepatitis B is calculated by adding together all the cases reported to public health from 2012 through 2023 and subtracting people matched to state death records. Using this method, at the end of 2023, 4,649 Wisconsin residents of all ages (0.08% of all Wisconsin residents) were living with hepatitis B. All counties had a prevalence above 0.01%, with Milwaukee hosting the highest prevalence percentage at 0.17%.

Figure 33. From 2012-2023, the number and rate of HBV cases per 100,000 was highest in the Southern and Southeastern regions.

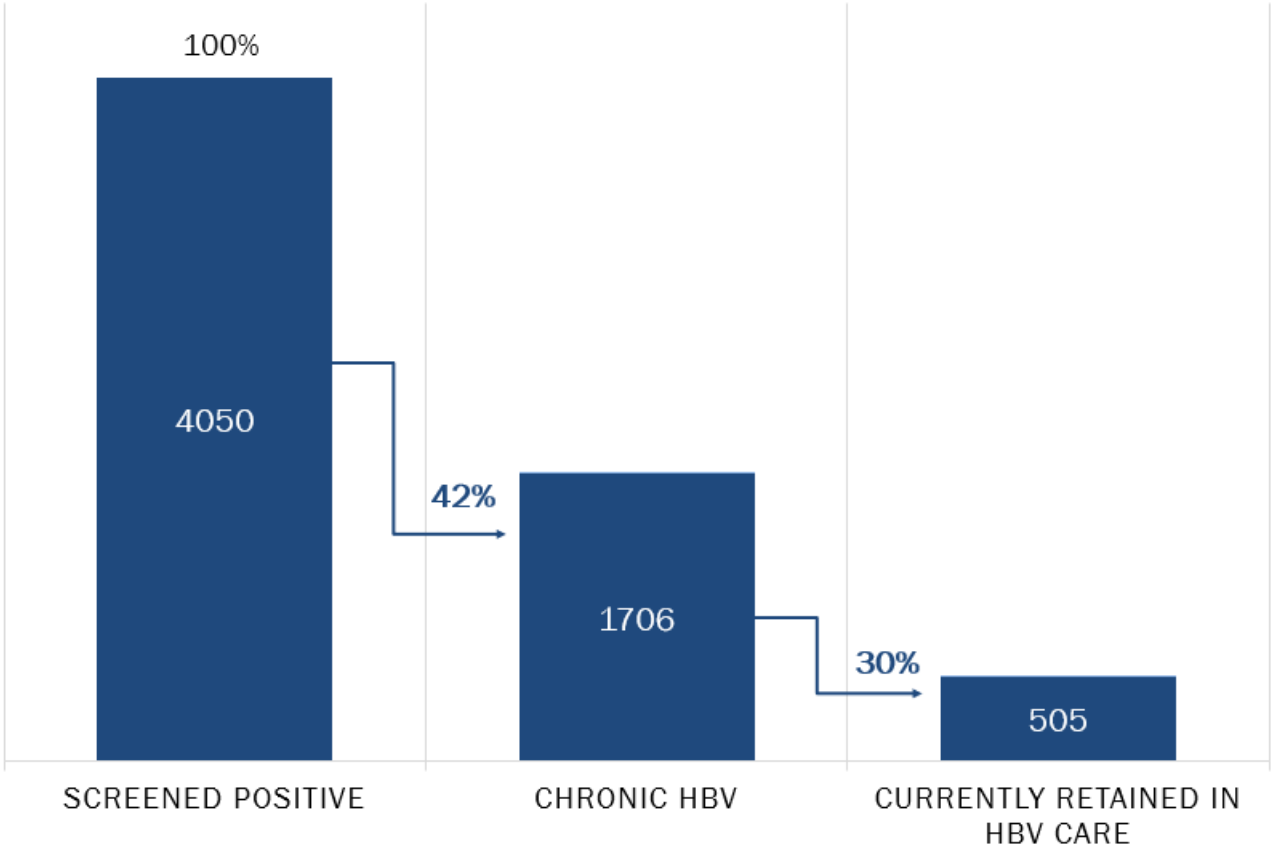
Number and rate of prevalent cases of hepatitis B cases by county of residence, Wisconsin, 2012-2023



Wisconsin HBV Continuum of Care, 2012–2023

The chronic hepatitis B continuum of care (CoC) demonstrates a standardized approach to measure HBV care engagement and management based on laboratory-based reporting. The chronic HBV CoC visualizes gaps in care, highlighting the need to improve access to and retention in specialized HBV care management.

Figure 34. HBV Continuum of Care, 2012-2023



	Definition
Screened positive	All individuals who have tested positive for HBV DNA, HBsAg, or HBV Genotype from 01/01/2012-12/31/2023 and meet the acute confirmed, chronic probable, or chronic confirmed CSTE case definition **and** are still alive through 12/31/2023
Chronic HBV	CSTE chronic confirmed case definition
Currently retained in care	HBV testing occurring during the follow-up period of 07/01/2022 - 12/31/2023

Appendices

TABLE 3
Number and rate per 100,000 of reported hepatitis C cases, by case classification and year of report, Wisconsin, 2011-2023

Year	Hepatitis C, Chronic		Hepatitis C, Acute		Hepatitis C, Perinatal		Hepatitis C, Total	
	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000
2011	2,549	44.7	14	0.2	--	--	2,563	44.9
2012	2,589	45.3	26	0.5	--	--	2,615	45.7
2013	2,596	45.3	42	0.7	--	--	2,638	46.0
2014	3,168	55.1	49	0.9	--	--	3,217	55.9
2015	3,684	63.9	61	1.1	--	--	3,745	65.0
2016	3,821	66.2	106	1.8	--	--	3,927	68.0
2017	2,968	51.4	99	1.7	--	--	3,067	52.9
2018	2,600	44.8	142	2.5	2	--	2,744	47.2
2019	2,348	40.3	119	2.1	0	--	2,467	42.4
2020*	1,837	31.2	96	1.7	8	--	1,941	32.9
2021	1,921	32.7	134	2.3	4	--	2,059	35.0
2022	1,600	27.2	100	1.7	2	--	1,702	28.9
2023	1,303	22.1	81	1.4	3	--	1,387	23.5

Notes: Cases were classified according to the National Notifiable Diseases Case Classifications. Case counts include both confirmed and probable cases. Starting in 2016, the case definitions for chronic hepatitis C and acute hepatitis C changed. Starting in 2017, negative RNA results became reportable to the Wisconsin Division of Public Health (DPH), which reduced the number of reports classified as probable chronic hepatitis C. This change also allowed more acute cases to be detected. In 2018, surveillance procedures changed to identify more acute cases. Reporting for the perinatal case definition began in 2018. In 2020, case definitions for acute and chronic hepatitis C changed.

*In 2020, case detection was impacted by reduced testing because of COVID-19.

Rates not shown for perinatal hepatitis C.

N = Number of cases

Rate per 100,000 = Number of cases divided by the population of Wisconsin and multiplied by 100,000

Appendices

TABLE 4
Number and rate per 100,000 of hepatitis C incidence and number and percentage of prevalent hepatitis C cases, by county, Wisconsin

County	Hepatitis C Incidence			Hepatitis C Prevalence, 2000-2023			
	N (2023)	N (3 yrs)	Rate per 100,000 (3yrs)	N (All Ages)	Percentage	N (18+)	Percentage
Adams	8	23	36.8	99	0.47	99	0.44
Ashland	7	29	60.6	68	0.42	66	0.29
Barron	11	30	21.5	128	0.27	128	0.57
Bayfield	6	11	22.8	32	0.19	31	0.14
Brown	67	183	22.8	793	0.29	786	3.47
Buffalo	0	4	10	17	0.13	17	0.08
Burnett	5	22	44.6	76	0.45	75	0.33
Calumet	7	20	12.7	86	0.16	84	0.37
Chippewa	13	48	24.2	192	0.29	188	0.83
Clark	8	21	20.2	58	0.17	57	0.25
Columbia	11	46	26.4	198	0.34	196	0.87
Crawford	8	18	37.1	34	0.21	34	0.15
Dane	92	373	22.3	1770	0.31	1756	7.76
Dodge	18	70	26.3	271	0.31	265	1.17
Door	5	19	21.3	78	0.26	78	0.34
Douglas	23	64	48.3	283	0.64	281	1.24
Dunn	2	11	8.1	83	0.18	80	0.35
Eau Claire	28	78	24.7	338	0.32	334	1.48
Florence	1	8	58.4	28	0.6	28	0.12
Fond du Lac	17	77	24.7	326	0.31	323	1.43
Forest	5	8	28.8	37	0.39	37	0.16
Grant	9	20	12.9	66	0.13	65	0.29
Green	7	24	21.7	97	0.26	97	0.43
Green Lake	5	16	27.8	66	0.34	65	0.29
Iowa	2	5	7	41	0.17	40	0.18
Iron	4	7	38.4	22	0.35	22	0.1
Jackson	5	19	30.4	89	0.43	88	0.39
Jefferson	16	52	20.3	244	0.28	239	1.06
Juneau	13	35	43.3	139	0.52	138	0.61
Kenosha	34	106	20.9	887	0.53	876	3.87
Kewaunee	3	6	9.7	36	0.17	35	0.15
La Crosse	24	79	22	321	0.27	319	1.41
Lafayette	1	4	7.9	22	0.13	1	0
Langlade	7	26	44.2	89	0.46	21	0.09
Lincoln	6	14	16.4	90	0.32	88	0.39
Manitowoc	28	80	32.9	337	0.42	88	0.39
Marathon	35	95	23.1	317	0.23	333	1.47
Marinette	20	67	53.6	212	0.5	313	1.38

Appendices

County	Hepatitis C Incidence			Hepatitis C Prevalence, 2000-2023			
	N (2023)	N (3 yrs)	Rate per 100,000 (3yrs)	N (All Ages)	Percentage	N (18+)	Percentage
Marquette	4	8	17	67	0.42	210	0.93
Menominee	3	3	23.4	22	0.52	67	0.3
Milwaukee	270	1311	47	7454	0.81	22	0.1
Monroe	9	46	33	180	0.39	7373	32.57
Oconto	6	32	27.2	92	0.23	179	0.79
Oneida	8	29	25.8	129	0.34	90	0.4
Outagamie	33	110	19.3	432	0.22	127	0.56
Ozaukee	10	31	11.3	199	0.21	426	1.88
Pepin	1	2	9	15	0.2	198	0.87
Pierce	3	12	9.5	66	0.16	15	0.07
Polk	11	27	19.9	93	0.2	66	0.29
Portage	12	33	15.6	145	0.21	90	0.4
Price	5	10	23.7	48	0.34	144	0.64
Racine	48	150	25.5	883	0.45	48	0.21
Richland	2	9	17.3	30	0.18	874	3.86
Rock	36	139	28.4	669	0.41	30	0.13
Rusk	3	9	21	31	0.22	661	2.92
Saint Croix	3	27	9.6	103	0.11	30	0.13
Sauk	23	68	34.8	262	0.4	100	0.44
Sawyer	10	47	87.6	82	0.44	259	1.14
Shawano	9	35	28.4	115	0.28	82	0.36
Sheboygan	30	85	24.2	387	0.33	113	0.5
Taylor	0	4	6.6	12	0.06	384	1.7
Trempealeau	2	10	10.9	42	0.14	12	0.05
Vernon	3	18	19.5	56	0.18	40	0.18
Vilas	13	35	50.5	118	0.5	604	2.67
Walworth	13	57	18.1	317	0.3	55	0.24
Washburn	3	12	24.2	46	0.27	116	0.51
Washington	17	62	15.1	292	0.21	316	1.4
Waukesha	33	189	15.4	848	0.21	46	0.2
Waupaca	17	32	20.6	167	0.32	289	1.28
Waushara	6	12	16.2	59	0.24	838	3.7
Winnebago	27	106	20.7	558	0.33	163	0.72
Wood	19	51	22.9	186	0.25	59	0.26
Federal Corrections	19	58	--	--	--	--	--
State Corrections	115	509	--	749	--	748	--
Wisconsin	1,387	5,702	32.6	23,656	0.40	23,249	0.39

Notes: N (2023) = Number of cases reported in 2023; N (3 yrs) = Total number of cases reported in the three years of 2021-2023; Rate per 100,000 (3 yrs)= Three-year average rate of newly reported cases; N = Number of cases
Percent = Number of cases divided by the population of the jurisdiction and multiplied by 100
The Wisconsin state total includes 632 people (604 of whom were age 18 or older in 2023) with unknown county of residence.

Appendices

TABLE 5
Number and rate per 100,000 of reported hepatitis B cases, by case classification and year of report, Wisconsin, 2012-2023

Year	Hepatitis B, Chronic		Hepatitis B, Acute		Hepatitis B, Perinatal		Total	
	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000	N	Rate per 100,000
2012	407	7.1	21	0.37	0	--	428	7.5
2013	357	6.2	7	0.12	1	--	365	6.4
2014	380	6.6	15	0.26	2	--	397	6.9
2015	409	7.1	7	0.12	1	--	417	7.2
2016	458	7.9	8	0.14	1	--	467	8.1
2017	382	6.6	15	0.26	0	--	397	6.9
2018	400	6.9	17	0.29	0	--	417	7.2
2019	349	6.0	10	0.17	2	--	361	6.2
2020*	301	5.1	8	0.14	1	--	310	5.3
2021	340	5.8	8	0.14	1	--	349	5.9
2022	408	6.9	14	0.24	0	--	422	7.2
2023	376	6.4	7	0.12	1	--	384	6.5

Notes: Cases were classified according to the National Notifiable Diseases Case Classifications. Case counts include both confirmed and probable cases

*In 2020, case detection was impacted by reduced testing because of COVID-19.

Rates not shown for perinatal hepatitis C.

N = Number of cases

Rate per 100,000 = Number of cases divided by the population of Wisconsin and multiplied by 100,000

Appendices

TABLE 6
Number and rate per 100,000 of hepatitis B incidence and number and percentage of prevalent hepatitis B cases, by county, Wisconsin

County	Incidence			Prevalence, 2012-2023	
	N (2023)	N (3 yrs)	Rate per 100,000 (3yrs)	N (All Ages)	Percentage
Adams	0	1	1.6	4	0.019
Ashland	1	2	4.2	5	0.031
Barron	5	7	5.0	45	0.096
Bayfield	0		0.0	3	0.018
Brown	15	38	4.7	232	0.086
Buffalo	0	2	5.0	3	0.022
Burnett	0	2	3.9	9	0.053
Calumet	2	5	3.2	32	0.061
Chippewa	4	11	5.5	26	0.039
Clark		4	3.8	5	0.014
Columbia	2	5	2.9	8	0.014
Crawford	2	2	4.2	11	0.069
Dane	57	173	10.2	704	0.124
Dodge	1	4	1.5	23	0.026
Door	0	4	4.4	15	0.049
Douglas	3	8	6.0	29	0.066
Dunn	3	6	4.4	26	0.057
Eau Claire	6	24	7.5	92	0.086
Florence	1	2	14.3	2	0.043
Fond du Lac	3	11	3.5	40	0.039
Forest	0	0	0.0	3	0.032
Grant	4	5	3.3	16	0.031
Green	0	0	0.0	8	0.022
Green Lake	0	2	3.5	5	0.026
Iowa	0	1	1.4	3	0.013
Iron	0	2	10.7	3	0.048
Jackson	2	4	6.4	10	0.048
Jefferson	5	6	2.3	36	0.042
Juneau	0	2	2.5	12	0.045
Kenosha	9	33	6.5	102	0.061
Kewaunee	4	9	14.6	12	0.058
La Crosse	10	35	9.7	114	0.095
Lafayette	0	0	0.0	5	0.030
Langlade	0	0	0.0	5	0.026
Lincoln	0	0	0.0	7	0.025
Manitowoc	3	9	3.7	37	0.046
Marathon	14	31	7.5	124	0.090
Marinette	1	4	3.2	13	0.031
Marquette	0	0	0.0	3	0.019
Menominee	1	1	7.9	2	0.048

Appendices

County	Incidence			Prevalence, 2012-2023	
	N (2023)	N (3 yrs)	Rate per 100,000 (3yrs)	N (All Ages)	Percentage
Milwaukee	114	349	12.6	1558	0.170
Monroe	0	20	14.4	43	0.093
Oconto	0	2	1.7	10	0.025
Oneida	0	2	1.7	17	0.044
Outagamie	10	47	8.2	135	0.070
Ozaukee	5	10	3.6	43	0.046
Pepin	0	0	0.0	2	0.027
Pierce	2	3	2.4	16	0.038
Polk	2	4	2.9	19	0.042
Portage	2	11	5.2	27	0.038
Price	0	0	0.0	2	0.014
Racine	7	24	4.1	122	0.062
Richland	1	1	1.9	5	0.029
Rock	11	31	6.3	109	0.066
Rusk	1	1	2.4	4	0.028
Saint Croix	4	9	3.1	16	0.017
Sauk	3	8	4.1	7	0.011
Sawyer	3	5	9.0	11	0.059
Shawano	0	1	0.8	107	0.262
Sheboygan	5	29	8.2	29	0.025
Taylor	0	0	0.0	8	0.040
Trempealeau	2	4	4.3	10	0.032
Vernon	0	2	2.1	3	0.010
Vilas	2	4	5.6	11	0.046
Walworth	6	15	4.7	43	0.041
Washburn	0	1	2.0	5	0.030
Washington	4	8	1.9	33	0.024
Waukesha	14	49	4.0	201	0.049
Waupaca	2	2	1.3	11	0.021
Waushara	0	0	0.0	5	0.020
Winnebago	17	39	7.6	164	0.096
Wood	2	8	3.6	24	0.032
Federal Corrections	2	2	--	--	--
State Corrections	5	9	--	15	--
Wisconsin	384	1,155	6.6	4,649	0.0079

Notes: N (2023) = Number of cases reported in 2023; N (3 yrs) = Total number of cases reported in the three years of 2021-2023; Rate per 100,000 (3 yrs)= Three-year average rate of newly reported cases; N = Number of cases Percent = Number of cases divided by the population of the jurisdiction and multiplied by 100

Technical Notes

This report was compiled by the Wisconsin Department of Health Services, Division of Public Health, Communicable Disease Harm Reduction Section and is based on reports of hepatitis B and C infection submitted by laboratories and LTHDs to the Wisconsin Electronic Disease Surveillance System (WEDSS). Per Wis. Admin. Code ch. DHS 145, hepatitis B and C are reportable communicable diseases. When cases are reported, local and Tribal health departments follow-up to provide health education, risk reduction counseling, hepatitis A and B vaccine, and medical referral as needed.

This report is based on hepatitis B and C surveillance data from WEDSS as of March 2024. Because WEDSS is not a static database and cases can be updated daily, case numbers used in other reports or individual county reports may vary depending on the date that these data are accessed.

Case Definitions, Ascertainment, and Classification

Case ascertainment and classification are made according to the current CDC/Council of State and Territorial Epidemiologists (CSTE) case definitions using available laboratory testing results and clinical symptoms. Cases of acute hepatitis B and C, chronic hepatitis B and C, and perinatal hepatitis B and C are recorded in WEDSS. Cases that meet the definition for a confirmed or probable case are summarized in this report.

The case definitions in effect during 2023 were:

Acute hepatitis B Hepatitis B, Acute 2012 Case Definition | CDC
Chronic hepatitis B Hepatitis B, Chronic 2012 Case Definition | CDC
Perinatal hepatitis B Hepatitis B, Perinatal Infection 2017 Case Definition | CDC

Acute hepatitis C Hepatitis C, Acute 2020 Case Definition | CDC
Chronic hepatitis C Hepatitis C, Chronic 2020 Case Definition | CDC
Perinatal hepatitis C Hepatitis C, Perinatal Infection 2018 Case Definition | CDC

Note that changes in standardized case definitions result in counting cases differently and can profoundly impact the number of cases reported in each year. Starting in January 2020, the case definitions for acute and chronic hepatitis C used by the National Notifiable Diseases Surveillance System were revised to improve the detection, classification, and monitoring of acute cases of hepatitis C. Case definitions for 2016 were substantially different from the previous case definition. Consequently, comparing counts or rates of hepatitis C cases reported during 2016-2019 and 2020-2022 to those reported during 2015 and earlier years should be done with caution.

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Please visit the following links for more information:

WI Hepatitis B Immunization

WI Hepatitis C Program

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