



2024 Hepatitis B and C Annual Surveillance Report

- BUREAU OF INFECTIOUS DISEASE PREVENTION - DIVISION OF EMERGING INFECTIOUS DISEASES -
- VIRAL HEPATITIS & TUBERCULOSIS SECTION - VIRAL HEPATITIS EPIDEMIOLOGY UNIT -

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Introduction

The Michigan Department of Health and Human Services (MDHHS) requires medical providers and laboratories to report cases of communicable diseases, including viral hepatitis, in accordance with Michigan's Communicable Disease Rules. Cases are reported to MDHHS via the Michigan Disease Surveillance System (MDSS), a web-based communicable disease reporting system. Providers and laboratories can enter cases manually or send cases via HL7 electronic laboratory report (ELR). The MDSS is compliant with CDC's National Notifiable Disease Surveillance System (NNDSS) and has been in use in Michigan since 2004. Case reporting is accomplished in the MDSS via standard HTML demographic data collection fields with an enhanced viral hepatitis reporting form for disease-specific data. This report will primarily highlight acute, chronic and perinatal hepatitis B and C surveillance, along with updates regarding populations of higher risk. MDHHS follows the current CDC Guidelines for Viral Hepatitis Surveillance and Case Management for reporting, investigating and maintaining quality assurance in viral hepatitis surveillance. Viral hepatitis surveillance data is submitted to CDC weekly in accordance with Morbidity and Mortality Weekly Report (MMWR) notification standards. Cases are classified according to the most recently published CDC/CSTE case definitions.

Background

Hepatitis is inflammation of the liver and can stem from both infectious and non-infectious causes. The most common types of viral hepatitis are hepatitis A (HAV), hepatitis B (HBV) and hepatitis C (HCV). These viruses can produce an acute illness characterized by nausea, malaise, abdominal pain and jaundice, although many of these acute infections are asymptomatic or cause only mild disease. HAV is transmitted from person to person via ingestion of food and water contaminated with fecal matter while HBV and HCV are both blood-borne pathogens. Many people infected with HBV or HCV are unaware they are infected. Unlike HAV, both HBV and HCV can produce chronic infections that often remain clinically silent for decades while increasing the risk for liver disease and hepatocellular carcinoma. Viral hepatitis is the leading cause of liver cancer and the most common reason for liver transplantation in the United States. The CDC estimates that approximately 100,000-200,000 Americans are newly infected or identified with chronic infection each year; a significant number may be unaware of their infection due to the often-asymptomatic nature of chronic infections.

Hepatitis B Virus

HBV is transmitted through contact with the blood or body fluids of a person living with hepatitis B, most often through sharing infected injection drug use (IDU) equipment, from sexual contact with an infected person or during childbirth. Transmission of HBV also can occur among people who have prolonged contact with someone who is HBV-infected (e.g., household contacts). Most people do not experience any symptoms during the acute infection phase. However, some

people have acute illness with symptoms that last several weeks, including jaundice, dark urine, extreme fatigue, nausea, vomiting and abdominal pain. In some people, the hepatitis B virus can also cause a chronic liver infection that can later develop into cirrhosis of the liver or liver cancer.

The risk for chronic HBV infection decreases with increasing age at infection. Among infants who acquire HBV infection at birth, as many as 90% become chronically infected, whereas 30%–50% of children infected at age one to 5 years become chronically infected. This percentage is smaller among adults, in whom approximately 5% of all acute HBV infections progress to chronic infection.

Estimates indicate that 880,000-1.89 million people are infected with the virus in the United States, most of whom are unaware of their infection status. The World Health Organization (WHO) estimates that approximately 254 million people worldwide were living with hepatitis B in 2022, resulting in an estimated 1.1 million deaths due to consequences of hepatitis B infection.

Effective hepatitis B vaccines have been available in the United States since 1981, and the CDC recommends vaccination of all infants at birth. Several oral antiviral medications have been approved for the treatment of chronic hepatitis B.

Hepatitis C Virus

HCV is transmitted primarily through exposure to contaminated blood, which can result from sharing infected injection equipment, needlestick injuries involving contaminated blood, receipt of unscreened blood or blood products prior to 1992 and/or inadequate infection control in health care settings. HCV transmission also occurs among infants born to HCV-infected people or during sexual contact with a partner who has hepatitis C. The most effective means of preventing infection with HCV is avoiding behaviors that can spread the virus, especially sharing IDU equipment.

The incubation period for HCV is two weeks to six months. Following initial infection, approximately 80% of people do not exhibit any symptoms. Those who are symptomatic may experience fever, fatigue, decreased appetite, nausea, vomiting, abdominal pain, dark urine and jaundice. No laboratory distinction can be made between acute and chronic HCV infection. Diagnosis of chronic infection is made based on the presence of HCV in the blood. About 75%–85% of newly infected individuals develop chronic infection and 60%–70% of chronically infected people develop chronic liver disease; 5%–20% of chronically infected people develop cirrhosis and 1%–5% die from cirrhosis or liver cancer.

With estimates ranging from 2.0 to 4.7 million infected people nationwide, HCV infection is the most common blood-borne infection in the United States. The WHO estimates 50 million people are chronically infected with HCV, with one million

BACKGROUND AND TECHNICAL NOTES

infections occurring each year. Worldwide, approximately 242,000 people died in 2022 from HCV-related liver diseases.

Since no vaccine is available for preventing HCV infection, other prevention activities, such as not sharing injection drug equipment and consistently implementing and practicing infection control in health care settings, are vital. Linkage to care and treatment is critical to improve health outcomes for people diagnosed with hepatitis C infection. Such linkage is particularly important considering recent advancements in treatment of hepatitis C. HCV direct-acting antivirals have few side effects or contraindications and can clear HCV infection in eight to 24 weeks with a success rate of 90%-95%.

Technical Notes

Michigan Communicable Disease Reporting Requirements

Michigan's communicable disease rules are promulgated under the authority conferred on the Department of Health and Human Services by Section 5111 of the Michigan Public Health Code, as amended, being MCL 333.5111 of the Michigan Compiled Laws. MDHHS maintains a list of conditions, which must be reported by physicians, other authorized health care professionals and laboratories to the local health department in which the patient resides.

Michigan is a "home rule state," in which local governments have direct control over local health departments (LHDs). Therefore, LHDs function as administratively autonomous units, separate from MDHHS. MDHHS administers the MDSS, expert consultation and other support as needed to LHDs. Physicians and laboratories report diseases to LHDs, which have the authority to investigate and follow up on the case in accordance with their own priorities and available resources.

Michigan has adopted standardized case definitions for hepatitis A, perinatal hepatitis B and C, and acute and chronic hepatitis B and C, which were developed and approved by the Council of State and Territorial Epidemiologists and CDC (see page 5). Cases of acute and chronic hepatitis B and C are reported via the MDSS using standardized CDC case report forms (see page 5).

The Michigan Disease Surveillance System

Mandatory reporting of communicable diseases can be accomplished via the MDSS. The MDSS facilitates coordination among LHDs, MDHHS and federal public health agencies. The MDSS provides for secure transfer, maintenance and analysis of communicable disease surveillance information. The MDSS has the capability to receive electronic laboratory reports directly from laboratories via HL7 messaging. Alternatively, cases can be manually entered into the MDSS via the web portal by medical providers, laboratories or LHD staff. Cases that have been previously entered in the MDSS are matched with incoming cases by a process known as deduplication. The MDSS deduplicates both the client and the disease event based on an

algorithm of name, sex and date of birth. Case reporting is accomplished in the MDSS via standard HTML demographic data collection fields with an enhanced viral hepatitis reporting form for disease-specific data. MDHHS submits weekly de-identified individual case reports to CDC via the National Notifiable Disease Surveillance System Modernization Initiative, a computerized public health surveillance information system. The MDSS is limited by binary sex data fields. Where possible, and when not referring explicitly to data pulled from this database, MDHHS has attempted to use inclusive language around gender that still names key risk factors related to HCV transmission.

The data in this report includes all cases which meet the CDC/CSTE case definitions referenced in "Web Links to Case Definitions and Case Report Forms" on page 5. Data includes cases with referral dates between January 1, 2024, and December 31, 2024, in the MDSS.

Retrospectively, viral hepatitis case counts have been affected by several circumstances including changes to case definitions, improvements in electronic lab reporting and the COVID-19 pandemic.

Local Health Jurisdiction Structure

Michigan is divided into eight public health preparedness regions that are serviced by 45 health jurisdictions covering 83 counties and one city level jurisdiction. These local health departments, functioning as administratively autonomous units, provide basic public health services, including communicable disease-related services, to all Michigan citizens and health care providers. MDHHS provides expert consultation, reference level diagnostic laboratory services and support to local health departments. MDHHS's public health laboratory performs hepatitis serologic and molecular testing for public health partners.

Determination of Rates

When calculating rates for years prior to 2010, 2000 Michigan Census data was used. 2010 Census data was used to calculate rates in the years 2010 - 2015. In years since, the most current U.S. Census Bureau's American Community Survey (ACS) five-year population estimates were used to calculate rates. All rates were calculated per 100,000 people in the Michigan population. Michigan Census data used in the annual report can be found at: <https://data.census.gov/cedsci/>

National Benchmarks

References to national benchmarks come from the CDC Division of Viral Hepatitis statistics via the National Notifiable Disease Surveillance System (NNDSS). National statistics used in the annual report can be found at:

[CDC Viral Hepatitis Surveillance Reports](#)

Data Limitations

There are several limitations to the data presented in this report. As a result, conclusions drawn from the data in this report should be interpreted with caution and with appropriate recognition of these limitations. As stated, this report compiles data on new viral hepatitis diagnoses, which meet CDC/CSTE case definitions, reported to the MDSS in the year 2024. In general, this is not necessarily reflective of the true number of new infections that occurred in 2024, nor the total number of individuals infected with viral hepatitis currently living in Michigan. Rather, these data approximate the number of new viral hepatitis diagnoses for the year. This should not, however, imply that these infections were contracted in the year 2024. Since most newly diagnosed viral hepatitis infections are chronic in nature, our data have limited utility in deciphering the date of exposure or infection acquisition for these cases.

New case definitions and changes in reporting capacity for acute and chronic hepatitis C cases have been implemented since 2016. The 2016 case definition change lowered the threshold for inclusion as a case. As a result, increases in HCV case counts and rates since 2015 may be, at least in part, indicative of the change in case counting methodology. The marked reduction in HCV cases for 2019 when compared with 2018 is the result of electronic lab reporting for nonreactive HCV RNA tests, which began January 1, 2019. Prior to implementation, many cases lacking a known RNA status were classified as probable cases in accordance with the CDC case classification rules. Viral hepatitis case counts were also affected by the COVID-19 pandemic. Due to the volume and nature of COVID-19, accessibility to hepatitis testing was likely restricted and resources for case follow-up were constrained.

Like many reportable diseases, cases of viral hepatitis are largely underreported. CDC estimates that only about 8%-10% of acute HBV and 15%-17% of acute HCV cases are reported each year. This is mainly because these infections often cause subclinical disease, leaving most people unaware of their hepatitis C status and unlikely to seek medical care until symptoms of chronic infection develop later in life. It is estimated that up to 80% of individuals infected with HCV do not know they are infected. CDC data approximates that, nationwide, 850,000 to 2.2 million individuals (about 0.3%-0.7% of the U.S. population) and 2.4 million (about 0.7% of the U.S. population) are infected with HBV and HCV respectively. Extrapolating that to the Michigan population, approximately 30,000-70,000 Michiganders would be expected to be living with HBV and 70,000 with HCV.

It should be noted that individuals who clear their HCV infection spontaneously (in about 25% of those exposed to the virus) or via antiviral treatment are still counted as cases in our disease surveillance system and are not removed from our case counts. Also, individuals who are repeatedly infected with HCV are only counted once in their lifetime in our surveillance system.

The Michigan Department of Corrections (MDOC) conducts HCV screening for new inmates, and they report cases to the MDSS as with any provider. Inmates who are positive for HCV are entered into the MDSS under the county where their correctional facility is located. All MDOC cases are removed from LHD case counts.

Enhanced Viral Hepatitis Surveillance, 2013-current

Starting in 2013, the Viral Hepatitis Unit initiated a plan to improve viral hepatitis surveillance in Michigan. New surveillance activities in this plan included: additional deduplication of cases in the MDSS, active surveillance of cases of public health importance, recruitment of laboratories to report into the MDSS electronically, and enhanced auditing and quality assurance of acute and chronic viral hepatitis cases. These enhancements to routine surveillance activities resulted in more reliable and complete information on viral hepatitis diagnoses. Large discrepancies in the data between 2013 and prior years may be a result of these enhanced surveillance efforts and not necessarily indicative of true disease trends.

Web Links to Case Definitions and Case Report Forms

Please refer to these [National Notifiable Disease Surveillance System Case Definitions](#).

Michigan Viral Hepatitis Case Report Forms

- [Perinatal Hepatitis B](#)
- [Acute Hepatitis B](#)
- [Chronic Hepatitis B](#)
- [Perinatal Hepatitis C](#)
- [Acute Hepatitis C](#)
- [Chronic Hepatitis C](#)

The Michigan Department of Health and Human Services (MDHHS) does not discriminate against any individual or group on the basis of race, national origin, color, sex, disability, religion, age, height, weight, familial status, partisan considerations, or genetic information. Sex-based discrimination includes, but is not limited to, discrimination based on sexual orientation, gender identity, gender expression, sex characteristics and pregnancy.

VIRAL HEPATITIS DATA SUMMARY

Summary of Demographic Information by Type of Hepatitis, Michigan, 2024

	Acute Hepatitis B Cases	% Acute Hepatitis B Cases	Chronic Hepatitis B Cases	% Chronic Hepatitis B Cases	Acute Hepatitis C Cases	% Acute Hepatitis C Cases	Chronic Hepatitis C Cases	% Chronic Hepatitis C Cases	MI Population	% MI Population
Total	53	100%	841	100%	85	100%	2,447	100%	10,051,595	100%
Sex										
Male	35	66%	499	59%	55	65%	1,441	59%	4,982,079	50%
Female	18	34%	338	40%	30	35%	1,006	41%	5,069,516	50%
Unknown	0	0%	4	0%	0	0%	6	0%	0	0%
Race and Ethnicity										
White or Caucasian	26	49%	230	27%	64	75%	1,507	62%	7,333,936	73%
Black or African American	12	23%	219	26%	10	12%	490	20%	1,329,998	13%
Hispanic	6	11%	19	2%	3	4%	113	5%	576,808	6%
Asian	3	6%	146	17%	1	1%	12	0%	327,211	3%
American Indian or Alaskan Native	1	2%	2	0%	1	1%	30	1%	32,996	0%
Other	2	4%	106	13%	3	4%	178	7%	450,646	4%
Unknown	3	6%	119	14%	3	4%	123	5%	0	0%
Age										
Mean	49	-	49	-	40	-	50	-	n/a	-
Median	49	-	48	-	35	-	48	-	40	-
Range	19-81	-	4-100	-	21-75	-	3-100	-	n/a	-
0-19 years	1	2%	10	1%	0	0%	23	1%	2,416,539	24%
20-29 years	2	4%	108	13%	26	31%	225	9%	1,330,315	13%
30-39 years	8	15%	163	19%	25	29%	597	24%	1,268,762	13%
40-49 years	17	32%	164	20%	13	15%	423	17%	1,180,606	12%
50-59 years	16	30%	158	19%	6	7%	335	14%	1,321,382	13%
60+ years	9	17%	238	28%	15	18%	839	34%	2,533,991	25%
Unknown	0	0%	0	0%	0	0%	11	0%	0	0%

*Other MI population includes 2023 5-year ACS census estimates of "some other race" and "two or more races"

The summary table above was created to illustrate the differences in the demographic makeup between the various viral hepatitis classifications:

- Men accounted for the majority of diagnoses across all viral hepatitis classifications in 2024.
- Asian and Black populations were disproportionately affected by hepatitis B relative to their proportion of the general population.
- Hepatitis C cases were more frequently reported among individuals identifying as white in 2024.
- Hepatitis C cases skew towards a younger population when compared with hepatitis B cases and the general population.

More detailed information on each viral hepatitis case classification can be found in subsequent sections of this report.

VIRAL HEPATITIS DATA SUMMARY

This report presents hepatitis B and C data collected from case reports submitted to the MDSS for calendar year 2024. Performing surveillance for viral hepatitis infections is important for identifying trends in rates of infection, characterizing high-risk groups, informing and evaluating prevention programs and identifying outbreaks. Below is a summary of the key findings from this year's report for the various hepatitis B and C case classifications, focus populations and hepatitis-related health outcomes.

Acute Hepatitis B

- Since a recent low in 2022, acute hepatitis B case reports in Michigan have been on a slight increase through 2024.
 - This is consistent with nationwide trends.
- The most commonly reported risk factors in 2024 included recent receipt of a tattoo, use of illicit drugs and history of incarceration.
- Demographically, newly reported cases were more commonly reported among men and individuals identifying as white or Black, with the majority reported in the southeast region of Michigan.

Chronic Hepatitis B

- The overall incidence rate of chronic hepatitis B continued to climb slightly from 2022 through 2024.
 - Michigan's incidence rate continues to be approximately 40% greater than the national rate.
- In 2024, the incidence rate among men decreased to 10.0 cases per 100,000 persons while the rate among women increased to 6.7 cases per 100,000.
 - This marks the most even distribution of cases across sex since 2019.
- Chronic hepatitis B tends to be more commonly reported in older Michiganders as 67% of new cases in 2024 were reported in people 40 years or older, which is very similar in age structure to national trends.

Acute Hepatitis C

- Total acute hepatitis C cases in 2024 increased slightly from the 2023 total but represents a nearly 40% decrease in the past five years.
 - This increase was disproportionate in terms of sex, as cases in men increased from 42 cases in 2023 to 55 cases in 2024.
- The most commonly reported risk factors included IDU, use of illicit drugs and recent receipt of a tattoo.
- Seventy-five percent of cases reported were among white individuals, while the highest incidence rate occurred in American Indian/Alaska Native individuals.
- The highest incidence rates in 2024 were reported in the lower peninsula's thumb/bay region at 1.55 cases per 100,000 persons and southwest Michigan at 1.35 cases per 100,000 persons (versus the statewide rate of 0.85 cases per 100,000).

Chronic Hepatitis C

- Following a slight increase from 2020 to 2021, new chronic hepatitis C cases reported have consistently decreased by 18% per year, on average.
- In 2024, the decrease in cases among women was more subtle than those among men.
- Risk factors reported in 2024 were consistent with recent years:
 - 55% reported IDU.
 - 46% reported prior incarceration.
 - 41% reported known contact with a person living with HCV.
- The general chronic hepatitis C trend in Michigan appears to indicate elevated burden in two distinct subpopulations, as elevated incidence is reported within younger white and American Indian/Alaska Native people in rural northern Michigan as well as older Black people in the greater Detroit area.

Perinatal Hepatitis C

- Although decreasing, the rate of hepatitis C cases reported within women 15-44 yrs old continues to remain higher than that of women outside the age range.
- The number of babies born to women living with hepatitis C increased by 7% to a total of 509 babies born in 2024.
 - Among these women, 61% were documented to be living with an active hepatitis C infection (based on most recent available HCV RNA test result), while 39% documented a past infection but current HCV RNA status was unknown.
- Only four cases of perinatal hepatitis C were reported in Michigan in 2024.

Hepatitis C in People 30-45 Years of Age

- Of the 2,532 hepatitis C cases reported in Michigan in 2024, 915 (36%) occurred in people aged 30-45 years of age.
 - Nearly 60% of these cases were reported in men.
 - 76% of these cases reported as white individuals and 11% reported as Black individuals.
 - Over 73% of these cases reported history of IDU.
 - The incidence rate of hepatitis C in people 30-45 years of age (49.1 cases per 100,000 persons) is nearly 2.5 times greater than the rate for people outside of that age cohort (19.7 cases per 100,000 persons).
- As trends in drug use evolve, the volume of new cases within the previously reported focus population of adults under 40 continues to shrink as fewer cases are reported among the younger end of the age range.
 - Consequently, an upward shift in the cohort at risk for hepatitis C infection via IDU is plausible as public drug use data indicates a recent preference change towards smoking or inhalation over injection as the primary route of drug administration amongst people under 25 years old.
- The incidence rate is highest in Michigan's Upper Peninsula and northern lower peninsula with a combined rate of 95.6 cases per 100,000 persons versus a rate of 45.8 cases per 100,000 in the remainder of the state.

Hepatitis C in Baby Boomers (Born between 1945-1965)

- Of the 2,532 hepatitis C cases reported in Michigan in 2024, 855 (34%) occurred in baby boomers (Born between 1945-1965).
 - More than 60% of these cases were reported in men.
 - Of the reported cases, 53% identified as white and 31% identified as Black.
 - Thirty-four percent of these cases reported a history of IDU.
 - The incidence rate of hepatitis C in baby boomers (40.2 cases per 100,000 persons) is 90% higher than the rate for people outside of that birth cohort (21.2 cases per 100,000 persons).
- Traditional risk factors are not completely understood but are most likely related to historical medical practices such as inadvertent use of blood products containing hepatitis C virus, lack of awareness prior to discovery in 1989 and drug use trends in the 1960-70s.
 - As a static cohort that is aging, the volume of cases reported within this population continues to decrease year over year.
- The incidence rate of hepatitis C in baby boomers is highest in Detroit and the surrounding jurisdictions with a rate of 69.2 cases per 100,000 persons versus a rate of 32.7 cases per 100,000 persons in the remainder of Michigan.

ACUTE HEPATITIS B

2020	ACUTE HEPATITIS B	2024
43	Total Cases (+23%)	53
32	Male Cases (+9%)	35
11	Female Cases (+45%)	16
0.4	Michigan Rate per 100,000 (+33%)	0.5
0.7	U.S. Rate per 100,000 (0%)	0.7*

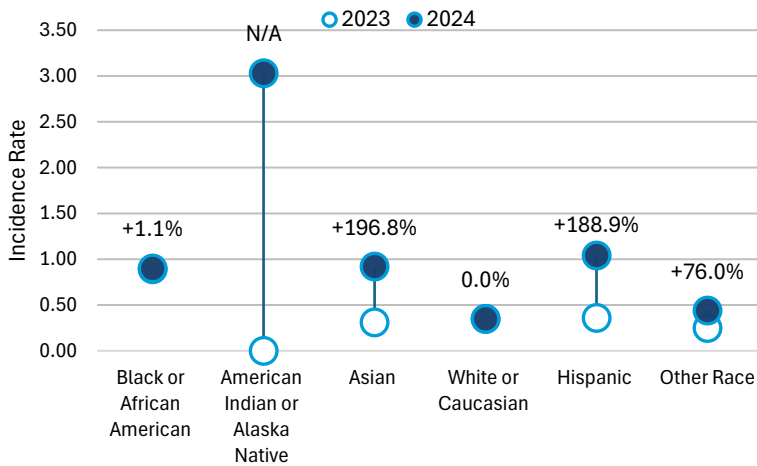
(% change since 2020)

*U.S. incidence rate is calculated from 2023 data

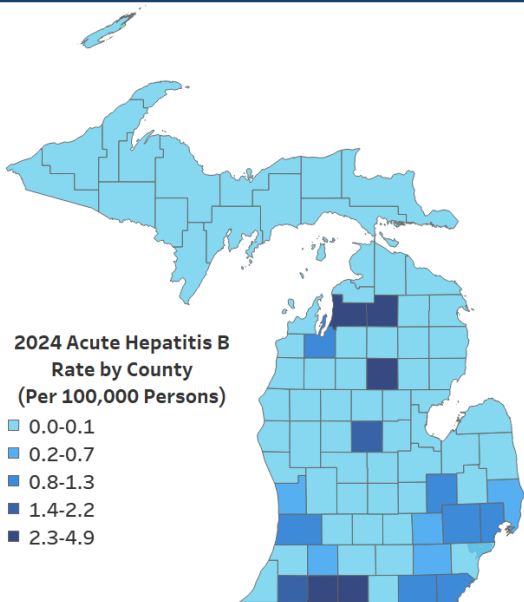
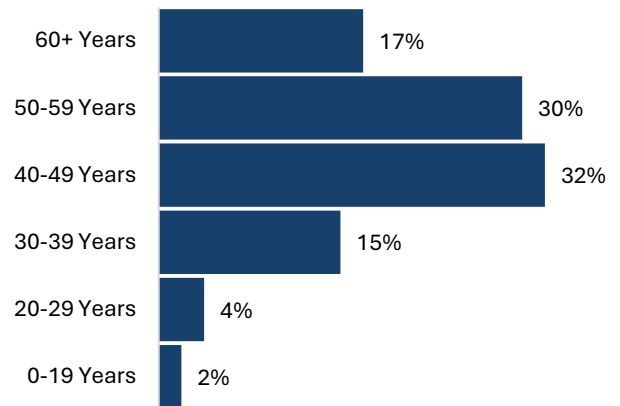
- Total acute hepatitis B cases in Michigan have increased by 23% in the past five years.
 - Increases have also been observed at the national level.
- Reported risk factors remained consistent with 2023 data, with receipt of a tattoo and use of illicit drugs as the most common.
- The majority of newly reported cases were among men 40 years or older.
- The most prominent increase in relative incidence rate was seen in Asian and Hispanic individuals (+196.8% and +188.9% increase, respectively).

Most Commonly Reported Risk Factors for Acute Hepatitis B, Michigan, 2024		
Received a Tattoo	Used Illicit Drugs	Incarceration Longer Than 6 Months
24% (-2%)	24% (-1%)	19% (+11%)
(change in proportion from 2023) - excludes missing/unknown data		

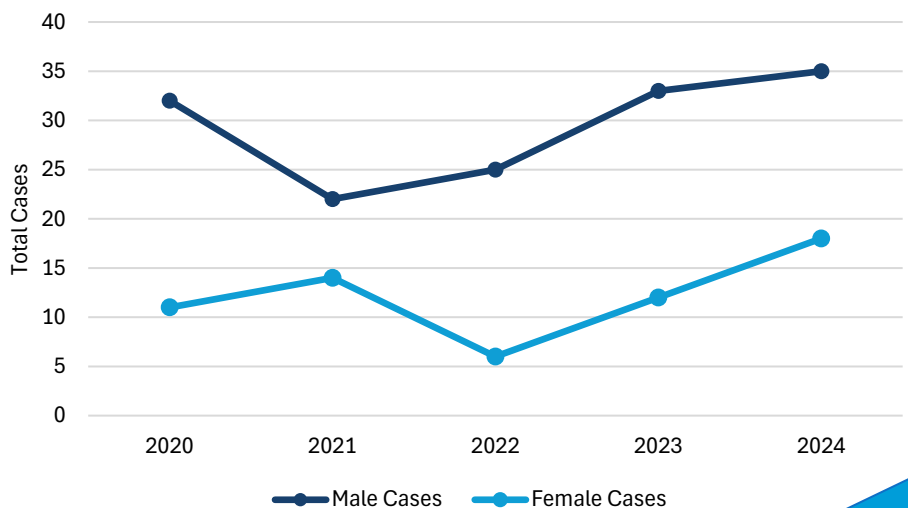
Acute Hepatitis B Percent Change in Incidence Rate per 100,000 in Michigan, 2023 to 2024



Proportion of Acute Hepatitis B Cases by Age Group, Michigan, 2024



Acute Hepatitis B Cases by Sex, Michigan, 2020-2024



CHRONIC HEPATITIS B

2020	CHRONIC HEPATITIS B	2024
713	Total Cases (+18%)	841
481	Male Cases (+4%)	499
228	Female Cases (+48%)	338
7.2	Michigan Rate per 100,000 (+17%)	8.4
5.0	U.S. Rate per 100,000 (+22%)	6.1*

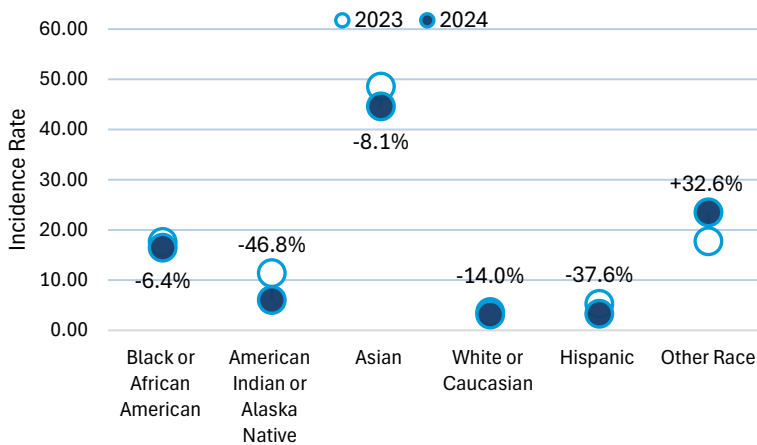
(% change since 2020)

*U.S. incidence rate is calculated from 2023 data

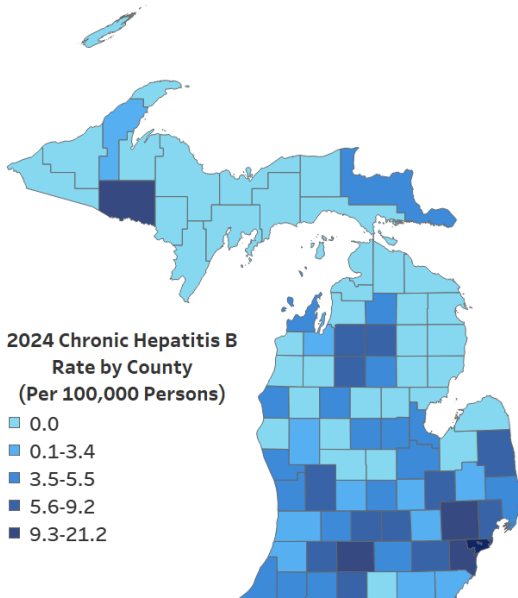
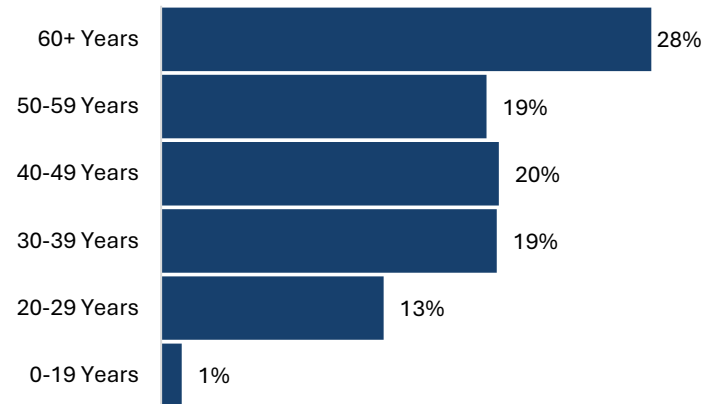
- Chronic hepatitis B cases decreased by 4% from 2023 to 2024 but have increased 18% in the most recent five year span.
 - This longer-term increase is largely attributed to a consistent rise in cases among women.
- Michigan's incidence is approximately 40% greater than the national rate.
- In 2024, 67% of cases occurred among people aged 40 years and older
- While incidence rate in Asian people decreased by 8.1% in 2024, 44.2 cases per 100,000 persons was nearly two times greater than any other demographic group.

Demographic Subgroups of Chronic Hepatitis B Cases, Michigan, 2024		
U.S. Born	Non-U.S. Born	Women of Childbearing Age (15-44 Yrs)
38% (+3%)	62% (-3%)	18% (+3%)
(change in proportion from 2023) - excludes missing/unknown data		

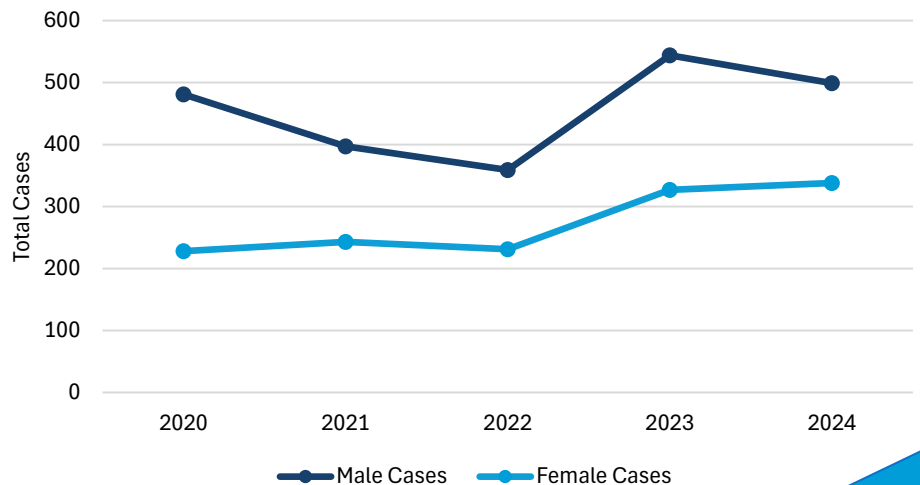
Chronic Hepatitis B Percent Change in Incidence Rate per 100,000 in Michigan, 2023 to 2024



Proportion of Chronic Hepatitis B Cases by Age Group, Michigan, 2024



Chronic Hepatitis B Cases by Sex, Michigan, 2020-2024



ACUTE HEPATITIS C

2020	ACUTE HEPATITIS C	2024
139	Total Cases (-39%)	85
90	Male Cases (-39%)	55
49	Female Cases (-39%)	30
1.4	Michigan Rate per 100,000 (-39%)	0.9
1.5	U.S. Rate per 100,000 (-7%)	1.4*

(% change since 2020)

*U.S. incidence rate is calculated from 2023 data

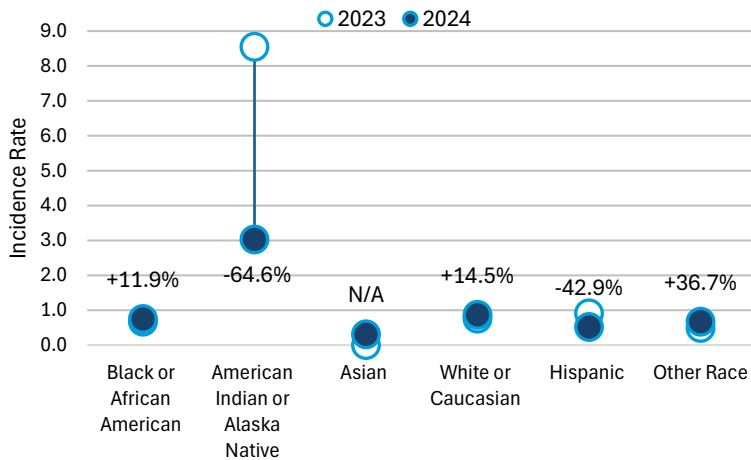
- Total acute hepatitis C cases in 2024 increased slightly from the 2023 total but reflects a nearly 40% decrease over the past five years.
- Seventy five percent of cases reported were among white individuals, while the highest incidence rate occurred among American Indian/Alaska Native individuals.
- Use of illicit drugs remains the most prevalent risk factor among new cases; however both illicit drug use and IDU decreased significantly in 2024, by 21% and 24%, respectively.
 - Drug use data indicates possible reduction in injection as primary route of administration.

Most Commonly Reported Risk Factors for Acute Hepatitis C, Michigan, 2024

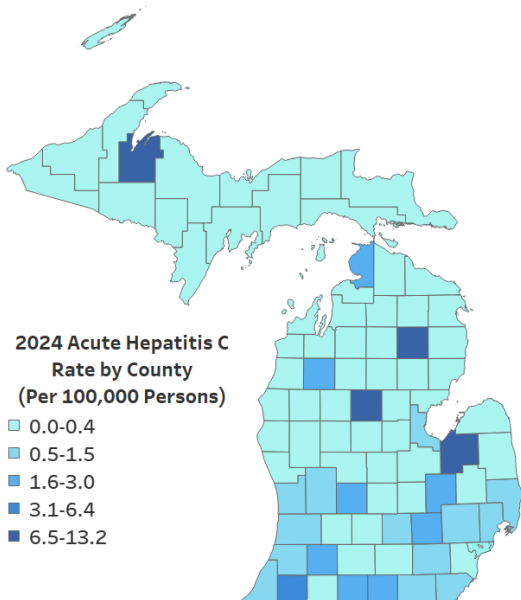
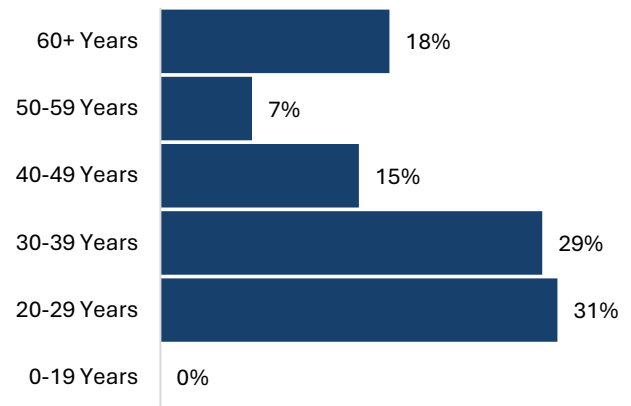
Used Illicit Drugs	Received a Tattoo	Incarceration Longer Than 6 Months
24% (-21%)	24% (-3%)	19% (-4%)

(change in proportion from 2023) - excludes missing/unknown data

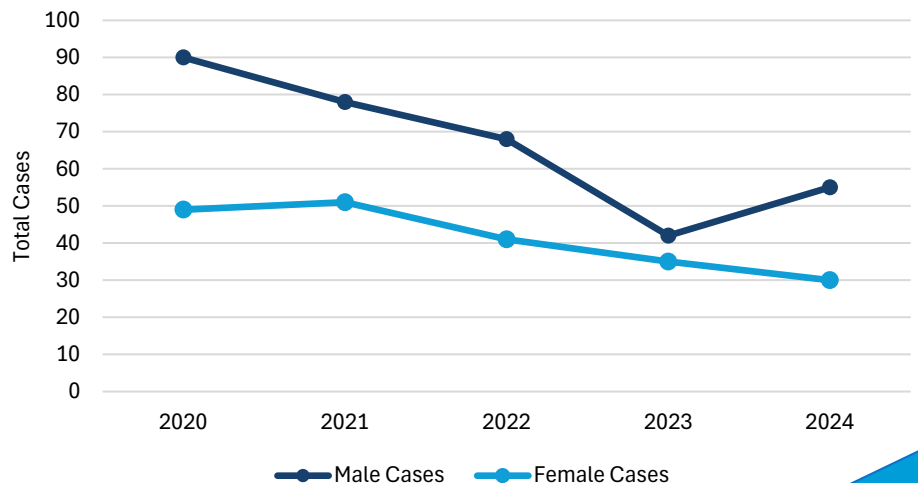
Acute Hepatitis C Percent Change in Incidence Rate per 100,000 in Michigan, 2023 to 2024



Proportion of Acute Hepatitis C Cases by Age Group, Michigan, 2024



Acute Hepatitis C Cases by Sex, Michigan, 2020-2024



CHRONIC HEPATITIS C

2020	CHRONIC HEPATITIS C	2024
4356	Total Cases (-44%)	2453
2588	Male Cases (-44%)	1441
1754	Female Cases (-43%)	1006
43.7	Michigan Rate per 100,000 (-44%)	24.3
40.7	U.S. Rate per 100,000 (-11%)	36.2*

(% change since 2020)

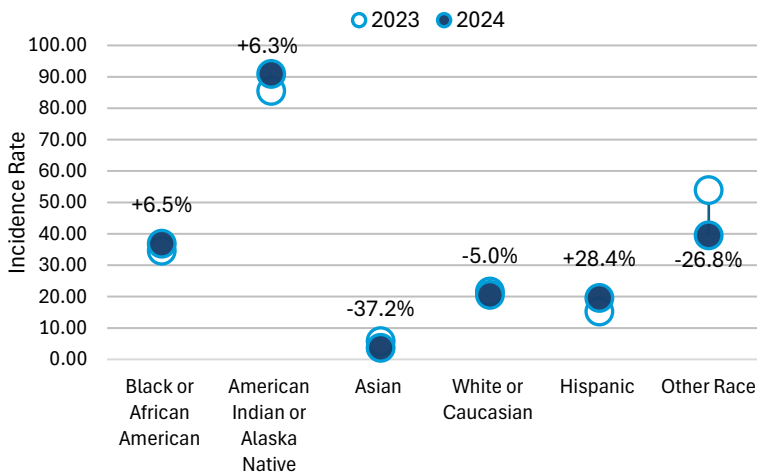
*Nationwide incidence rate is calculated from 2023 case counts

- Following a slight increase from 2020 to 2021, newly reported chronic hepatitis C cases have consistently decreased by an average of 18% year over year.
- IDU continues to be reported as the most frequently reported risk factor for chronic hepatitis C.
- Age and demographic structure of cases reported in 2024 was very similar to that observed in 2023.
- Data indicate elevated incidence is reported within younger white and American Indian/Alaska Native individuals in rural northern Michigan as well as older Black individuals in the greater Detroit area.

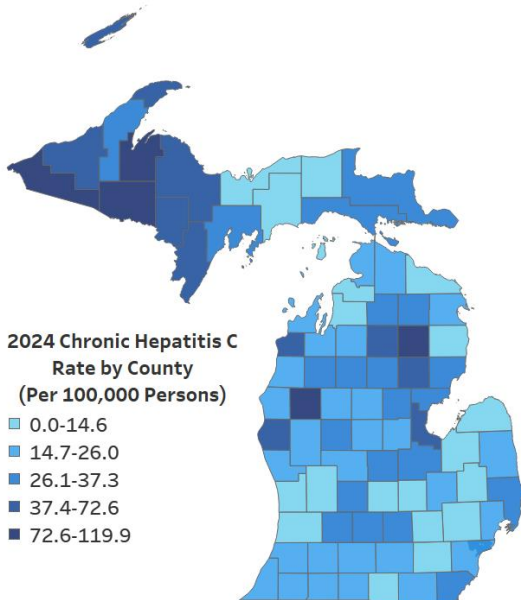
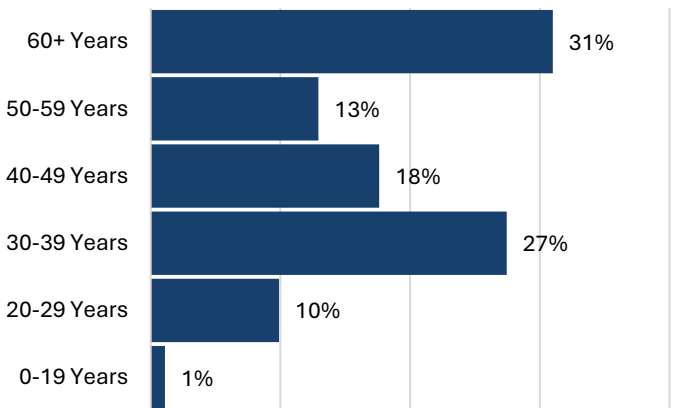
Most Commonly Reported Risk Factors for Chronic Hepatitis C, Michigan, 2024

Injection Drug Use	Ever Incarcerated	Contact of a Person with Hepatitis C
55% (+3%)	46% (+4%)	41% (0%)
(change in proportion from 2023) - excludes missing/unknown data		

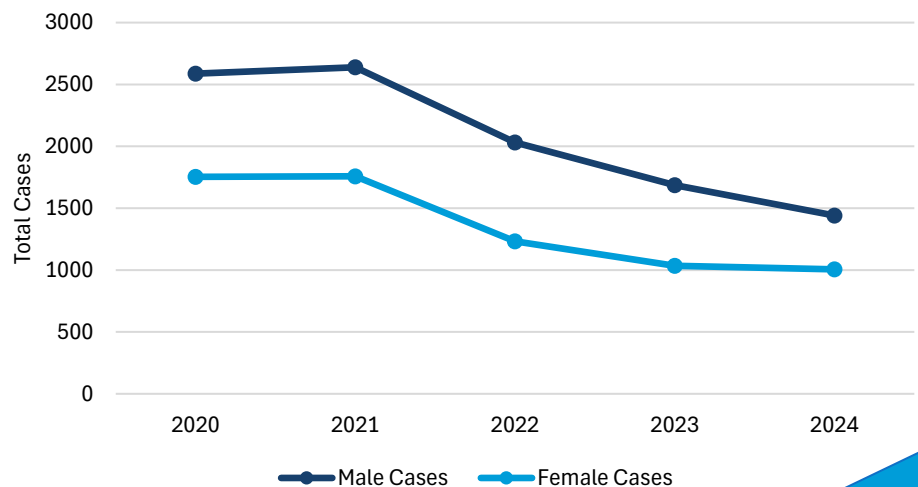
Chronic Hepatitis C Percent Change in Incidence Rate per 100,000 in Michigan, 2023 to 2024



Proportion of Chronic Hepatitis C Cases by Age Group, Michigan, 2024

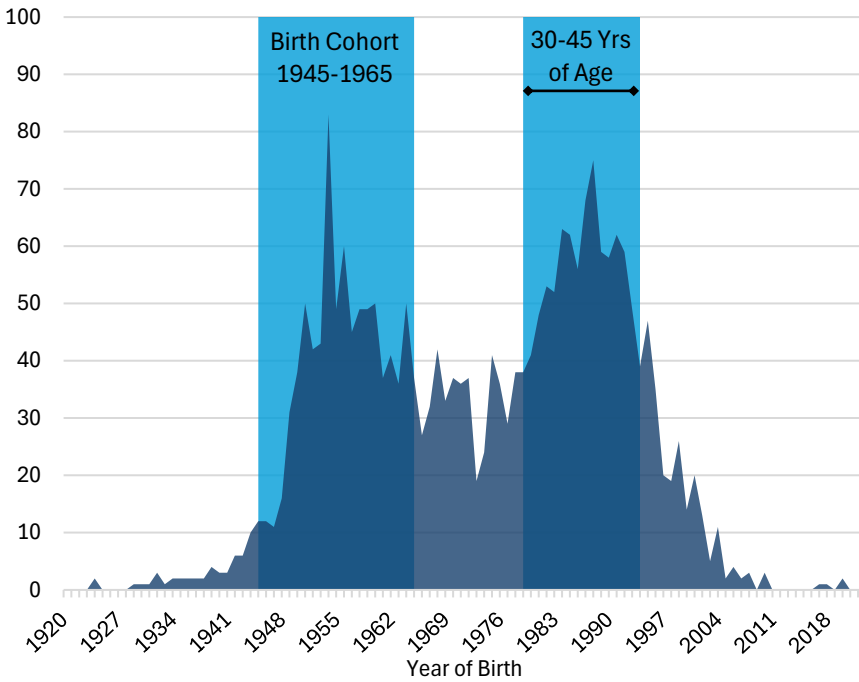


Chronic Hepatitis C Cases by Sex, Michigan, 2020-2024

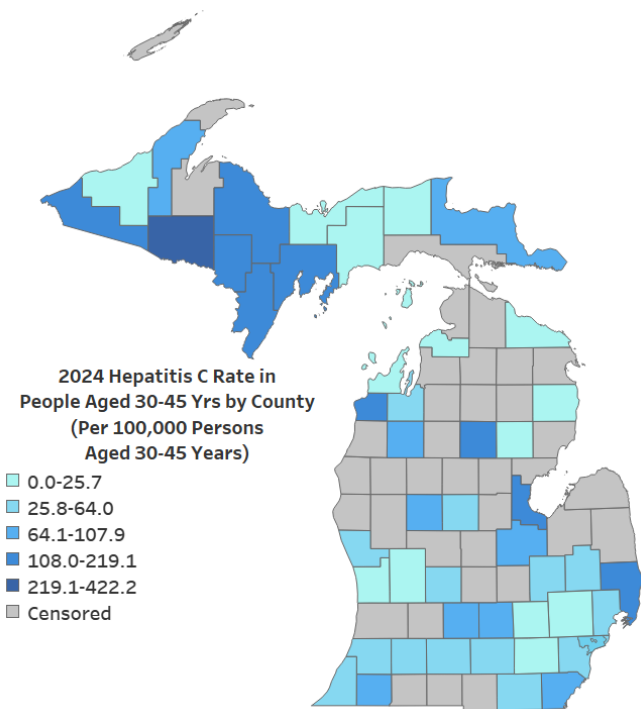


FOCUS POPULATIONS

Total Hepatitis C Cases Reported in Michigan by Year of Birth, 2024



36% of all
new hepatitis C
cases in 2024
were reported in
people between
30 and 45 years of age.



Due to internal data suppression guidelines, rates corresponding with counties reporting 1-4 cases in the data year require censorship

PEOPLE 30-45 YEARS OF AGE

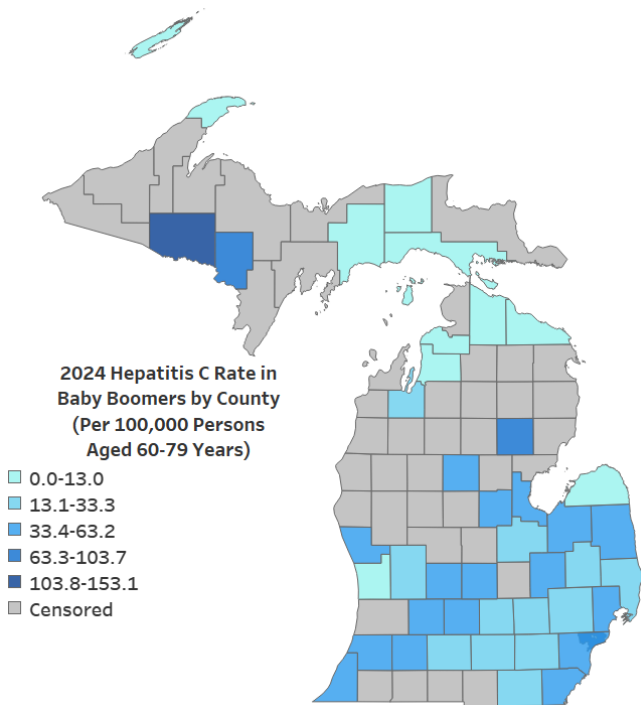
- Of the 2,532 hepatitis C cases reported in Michigan in 2024, 915 (36%) occurred in people 30-45 years of age.
- More than 70% reported history of IDU.
- Traditionally, the 18-39 year old age group was considered with elevated risk of hepatitis C transmission via IDU, however the volume of new cases on the younger end of this population continues to shrink.
 - Consequently, an upward shift in the cohort at risk for hepatitis C infection via IDU is plausible as public drug use data indicates a recent preference change towards smoking or inhalation over injection as the primary route of drug administration amongst people under 25 years old.
- Incidence rates were highest in Michigan's upper peninsula and northern lower peninsula with a combined rate of 95.6 cases per 100,000 persons versus a rate of 45.8 cases per 100,000 in the remainder of the state.

Epidemiologic Summary of Chronic Hepatitis C Cases Aged 30-45 Years Old, 2024

Age (n = 915)		
Median	37	
Mean	36	
Range	30-45	
Sex (n = 915)		Rate per 100,000
Female	371 (40.5%)	40.1
Male	544 (59.4%)	58.0
Race (n = 880)		Rate per 100,000
White	669 (76.0%)	49.4
Black	94 (10.7%)	36.0
American Indian or Alaskan Native	19 (2.2%)	224.7
Asian	1 (0.1%)	1.2
Other Race	97 (11.0%)	85.0
Hispanic Ethnicity (n = 740)		Rate per 100,000
Hispanic or Latinx	47 (6.4%)	39.2
Not Hispanic or Latinx	693 (93.6%)	39.8
Arab Ethnicity (n = 264)		
Arab Ethnicity	2 (0.8%)	
Non-Arab	261 (98.9%)	
History of IDU (n = 427)		
Yes	313 (73.7%)	
No	114 (26.7%)	

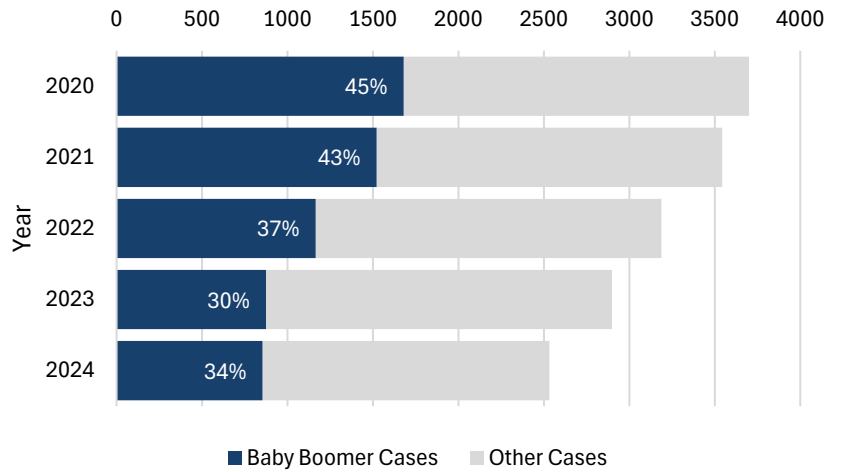
BABY BOOMERS

- Of the 2,532 hepatitis C cases reported in Michigan in 2024, 855 (34%) occurred among baby boomers (people born between 1945 and 1965).
 - More than 60% of these cases were reported among men.
 - Fifty three percent reported as white individuals.
 - Thirty one percent reported as Black individuals.
 - Thirty four percent reported history of IDU.
 - As a static cohort that is aging, the volume of cases reported within this population continues to decrease year over year.
- The majority of hepatitis C cases among baby boomers were reported in Southeast Michigan (Detroit City, St. Clair, Macomb, Oakland, Wayne, Washtenaw and Monroe counties) with a combined rate of 48.9 cases per 100,000 people versus a rate of 33.5 cases per 100,000 in the rest of the state.
- In terms of age distribution by race, hepatitis C cases among Black and Asian individuals were more concentrated in the baby boomer cohort, while other demographic groups showed a broader age distribution or were skewed toward younger adults.

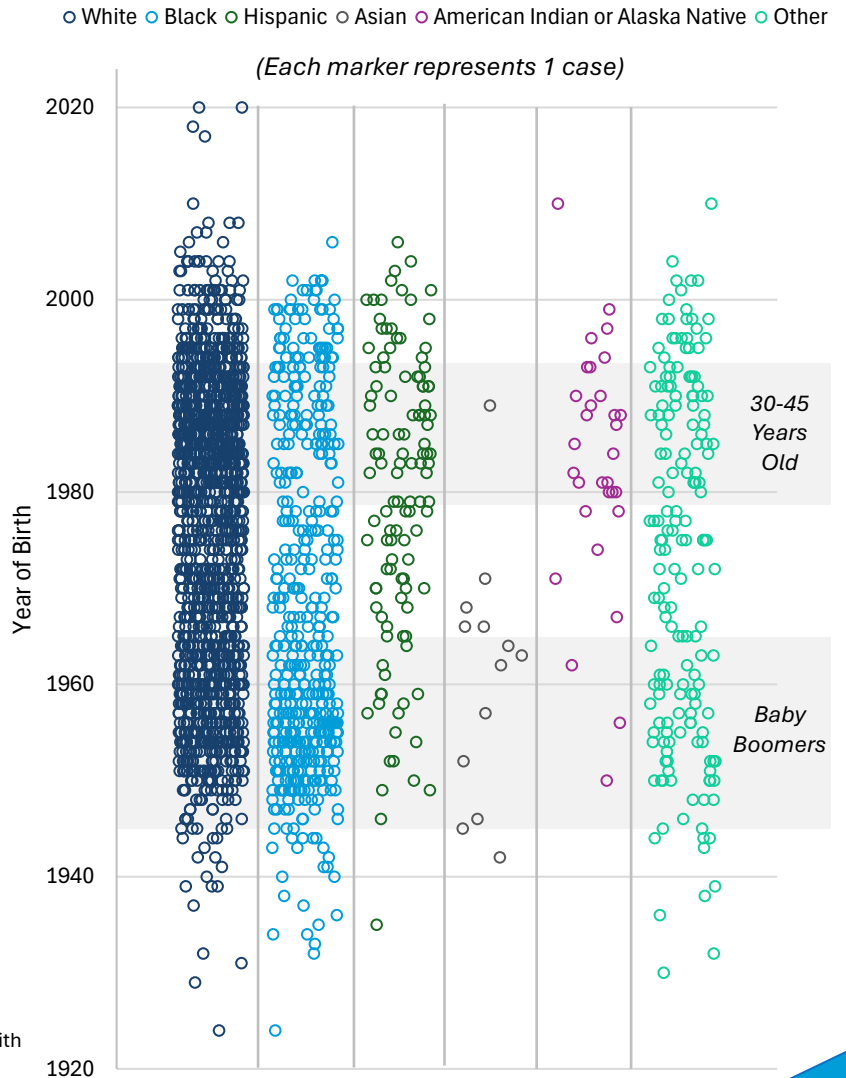


Due to internal data suppression guidelines, rates corresponding with counties reporting 1-4 cases in the data year require censorship

Hepatitis C Cases Reported in Baby Boomers as a Percentage of Total Cases in Michigan, 2020-2024



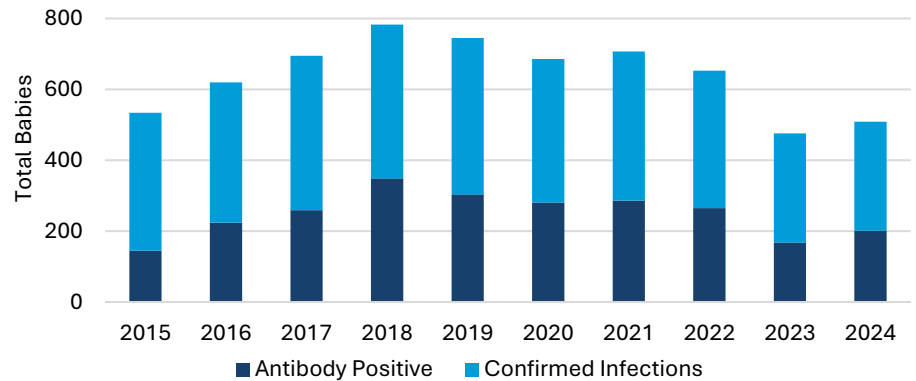
Distribution of Total Hepatitis C Cases Reported in Michigan by Year of Birth and Race, 2024



PERINATAL HEPATITIS C

- Although decreasing, the rate of hepatitis C cases reported in women 15-44 years old continues to be higher than that of women outside reproductive age.
- The number of babies born to women reported with hepatitis C prior to giving birth increased by 7% to a total of 509 babies born in 2024.
- Of these women, 61% had confirmed current hepatitis C infection, while the remaining 39% had reactive antibody results indicating prior infection but without confirmed current viral presence due to missing RNA test results.
- From 2018 through 2024, a total of 4,453 people who gave birth were reported in the MDSS with hepatitis C cases prior to giving birth. Relative to people never reported in the MDSS, these individuals were:
 - 4.6 times more likely to be current smokers.
 - 4.1 times more to identify as American Indian.
 - 2.5 times more likely to have attended less than eight prenatal care visits.

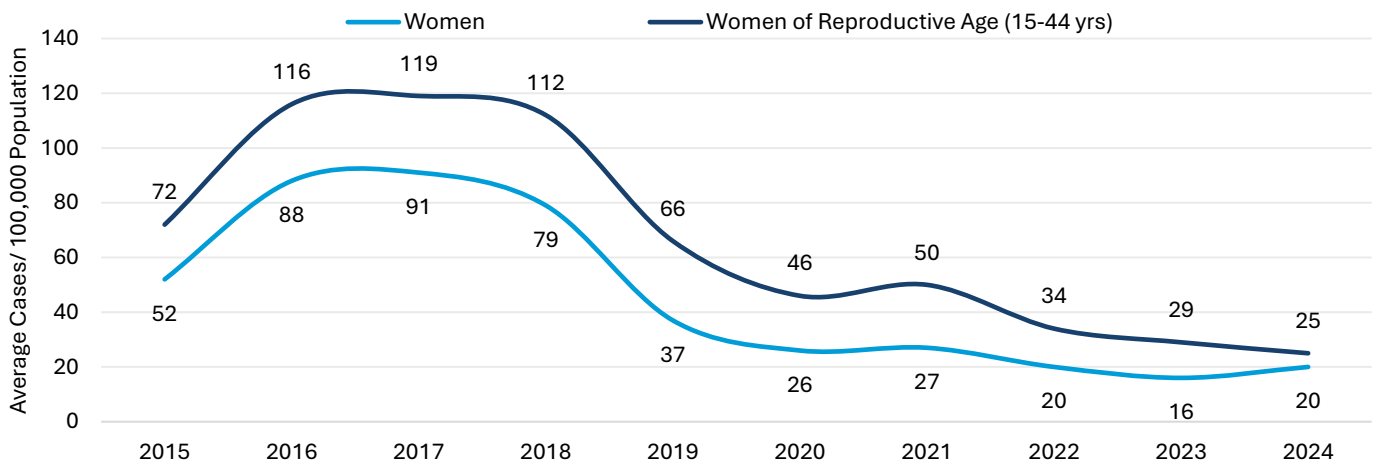
Number of Babies Born to People Reported With Hepatitis C in Michigan Prior to Giving Birth, 2015-2024



Demographics of Birth Parents and Hepatitis C Status, Michigan Birth Records, 2018-2024

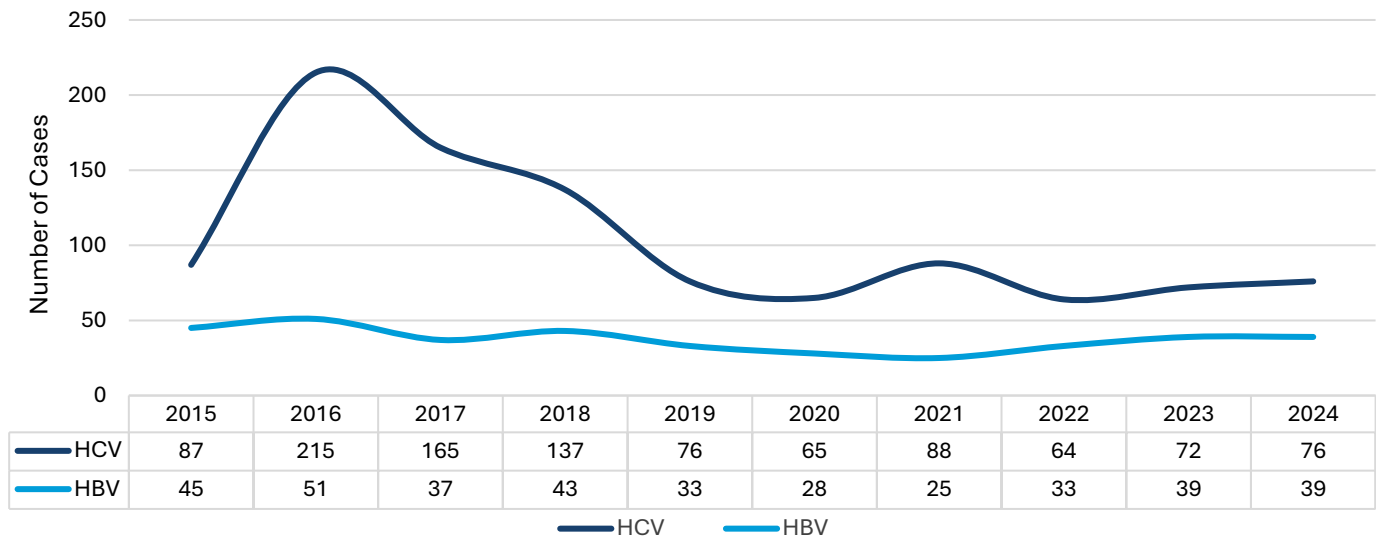
Birth Mother Demographics	Proportion of Birth Mother Ever Reported With Hepatitis C	Proportion of Birth Mother Never Reported With Hepatitis C
Age 30-39 Yrs	53.8%	44.8%
American Indian	3.0%	0.7%
White	83.7%	71.6%
Less than 8 Prenatal Care Visits	31.0%	12.6%
No Education Past High School	89.4%	57.4%
Medicaid Beneficiary	72.4%	41.9%
Current Smoker	53.9%	11.8%
Unmarried	79.8%	40.0%

Number of Hepatitis C Cases per 100,000 Population, Women of Reproductive Age compared to Total Women, 2015-2024



FOCUS POPULATIONS

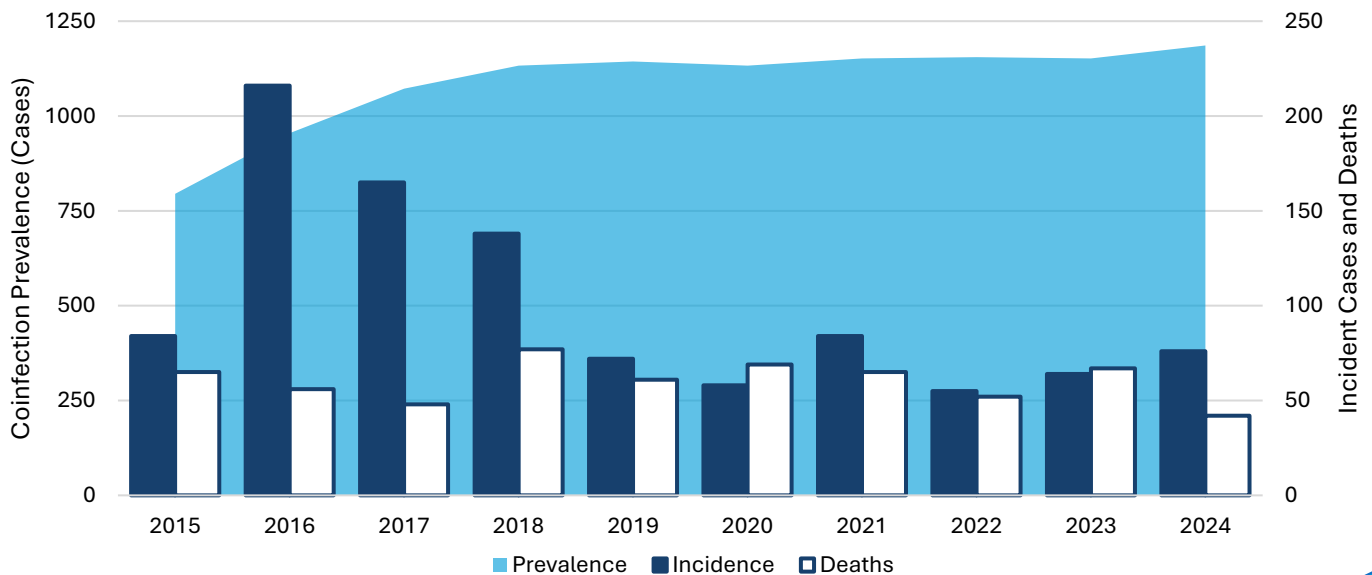
Count of Hepatitis B and Hepatitis C Cases Co-infected with HIV in Michigan, 2008-2023



HEPATITIS AND HIV COINFECTIONS

- Positive health outcomes for individuals with HIV/HBV or HIV/HCV co-infections are significantly less likely than individuals who are mono-infected with either of the viruses. To assess the burden of viral hepatitis and HIV co-infection in Michigan, HIV cases reported in the Enhanced HIV/AIDS Reporting System (eHARS) were matched with viral hepatitis cases reported in the MDSS.
- A slight increase in HCV-HIV coinfections (79 cases) and the same number of HBV-HIV coinfections (39 cases) were identified compared to 2023 totals.
- Pronounced fluctuations in case counts may be a result of a case definition change in 2016, the implementation of electronic reporting of negative HCV RNA lab results beginning in 2019 and/or the COVID-19 pandemic in 2020.
- Nearly 1,200 Michiganders are known to be living with both hepatitis C and HIV infections.

Prevalence, Incidence, and Deaths of Diagnosed HCV-HIV Coinfections by year of diagnosis in Michigan, 2015 - 2024



VIRAL HEPATITIS OUTCOMES

2020		2024
14,018	Hepatitis C Hospitalizations	4,695
(-67%)		

2020		2024
1,722	Hepatitis B Hospitalizations	870
(-49%)		

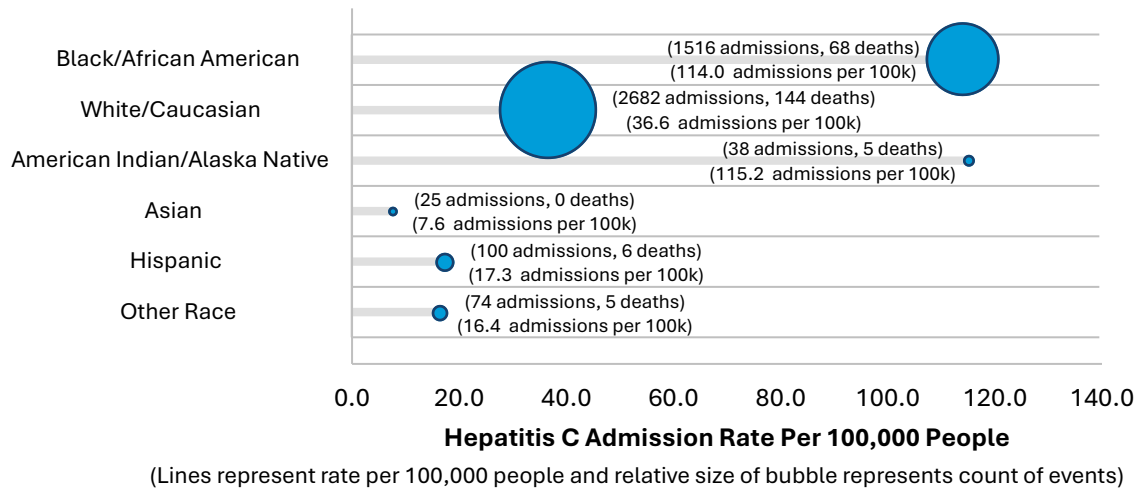
2020		2024
303	Hepatitis C Deaths	222
(-27%)		

2020		2024
31	Hepatitis B Deaths	28
(-10%)		

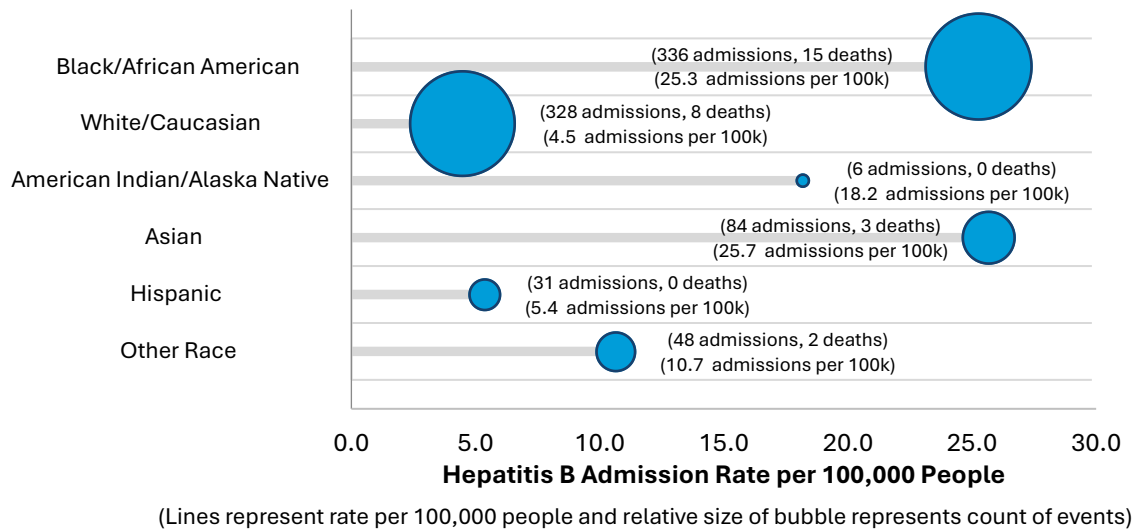
*Hospital admissions data obtained from the Michigan Inpatient Database and death data obtained from the Michigan Electronic Death Registry

- Due to overall disease burden, the prevalence of hepatitis C hospitalizations and deaths far exceeds that of hepatitis B. However, all indicators have decreased in the past five years and the proportion of deaths relative to hospitalizations has remained approximately 3%-5%, annually, for both conditions.
 - The increased hospitalization counts in 2020 and 2021 were most likely due to COVID-19 hospitalizations where hepatitis B or C was listed as a secondary diagnosis (all primary and secondary diagnoses are included in these data).
- Black and American Indian/Alaska Native individuals were disproportionately affected in terms of hepatitis C outcomes in 2024.
- Black and Asian populations individuals experienced elevated rates of hepatitis B-related hospital admission or death in 2024.

Hepatitis C Associated Hospital Admissions and Deaths by Race, Total and Rate per 100,000 persons, 2024



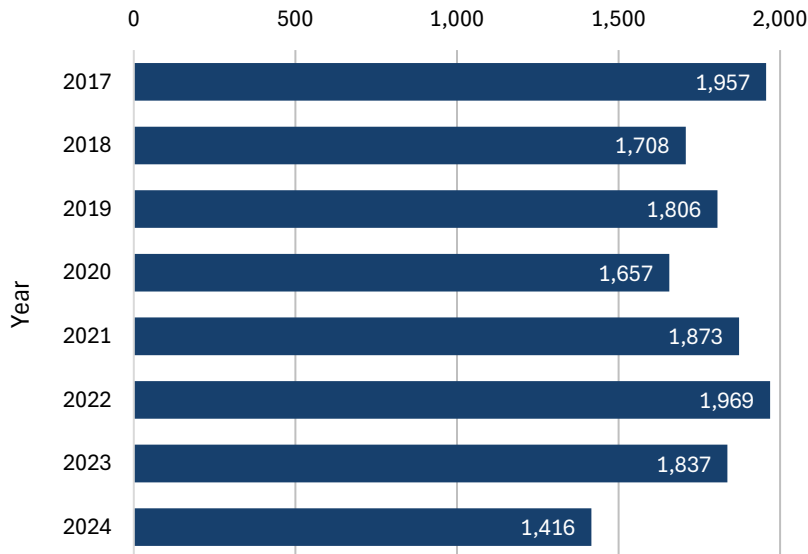
Hepatitis B Associated Death and Hospital Admissions by Race, Total and Rate per 100,000 persons, 2024



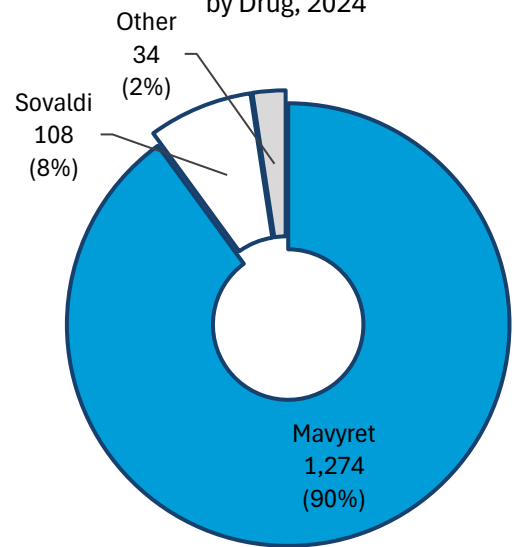
HEPATITIS C TESTING AND TREATMENT

- Despite a greater proportion of cases identified as Medicaid beneficiaries in 2024, total hepatitis C treatment prescriptions for beneficiaries decreased to the lowest total reported since 2015 (1,416).
- Of the prescriptions filled, 90% were prescribed Mavyret.
- The chronic hepatitis C clearance cascade indicates that nearly 90% of infections have a documented HCV RNA test, yet of the 4,630 cases where HCV RNA was present, only 42% have documented viral clearance.

Total Number of Medicaid Members with Prescriptions for Hepatitis C Treatment, 2017-2024

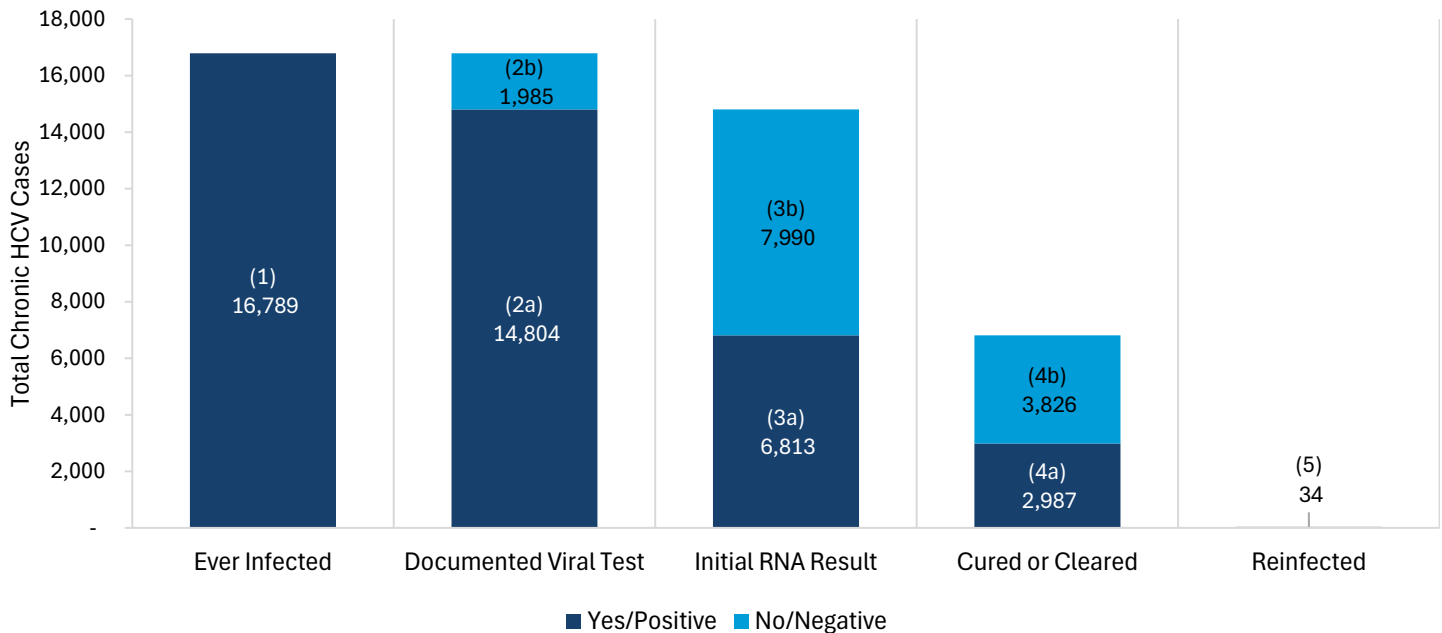


Proportion of Medicaid Beneficiary Hepatitis C Treatment Prescriptions Filled by Drug, 2024



Source: Michigan Medicaid Data Warehouse

Chronic Hepatitis C Laboratory Based Clearance Cascade, Cases Reported 6/9/2022-12/31/2024

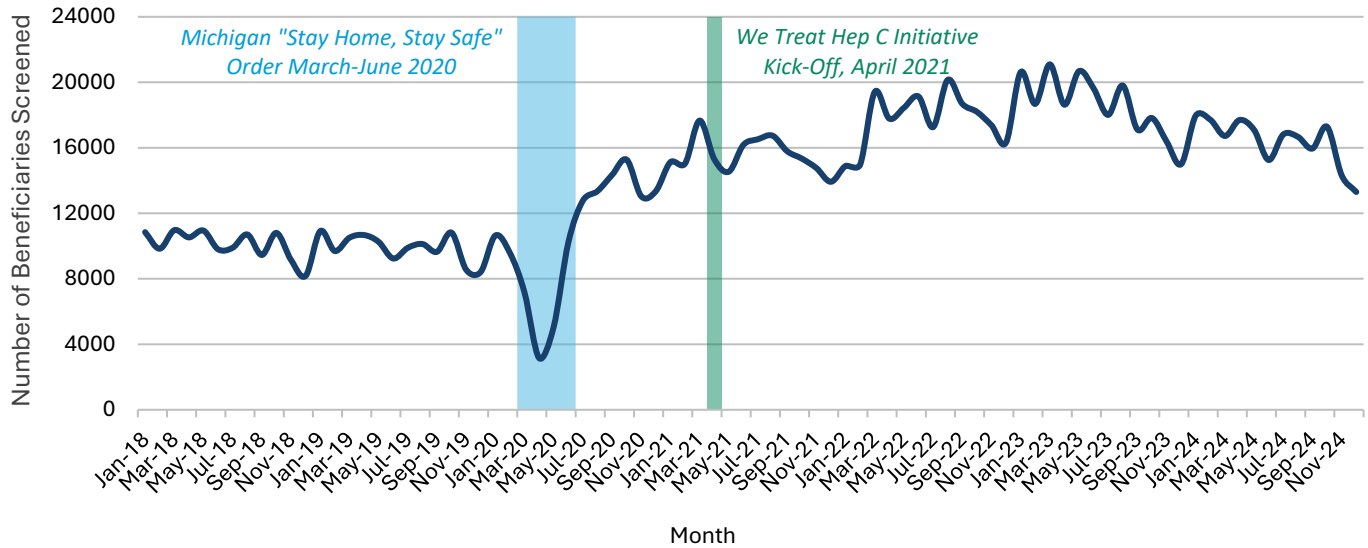


- (1): All individuals reported to the MDSS from June 9, 2022, through December 31 of current report year that have any positive HCV lab results (Ab, RNA or Genotype).
- (2a): All individuals in group 1 with a valid RNA result documented in MDSS (positive or negative).
- (2b): All individuals in group 1 with no RNA test documented in MDSS (indicating opportunity for follow-up testing).
- (3a): All individuals from group 2a whose first RNA test result reported to MDSS was positive (indicating active infection at time of report).
- (3b): All individuals from group 2a whose first RNA test result reported to MDSS was negative (indicating cured or cleared infection at time of report).
- (4a): All individuals from group 3a who have documented negative RNA results after initial positive RNA results in MDSS (indicating clearance of confirmed infection).
- (4b): All individuals from group 3a who have not documented negative RNA results after initial positive RNA results in MDSS (indicating opportunity for HCV treatment).
- (5): All individuals from group 4a with positive RNA test reported to MDSS after having documented cure or clearance of active infection (indicating reinfection or failed treatment).

WE TREAT HEP C INITIATIVE

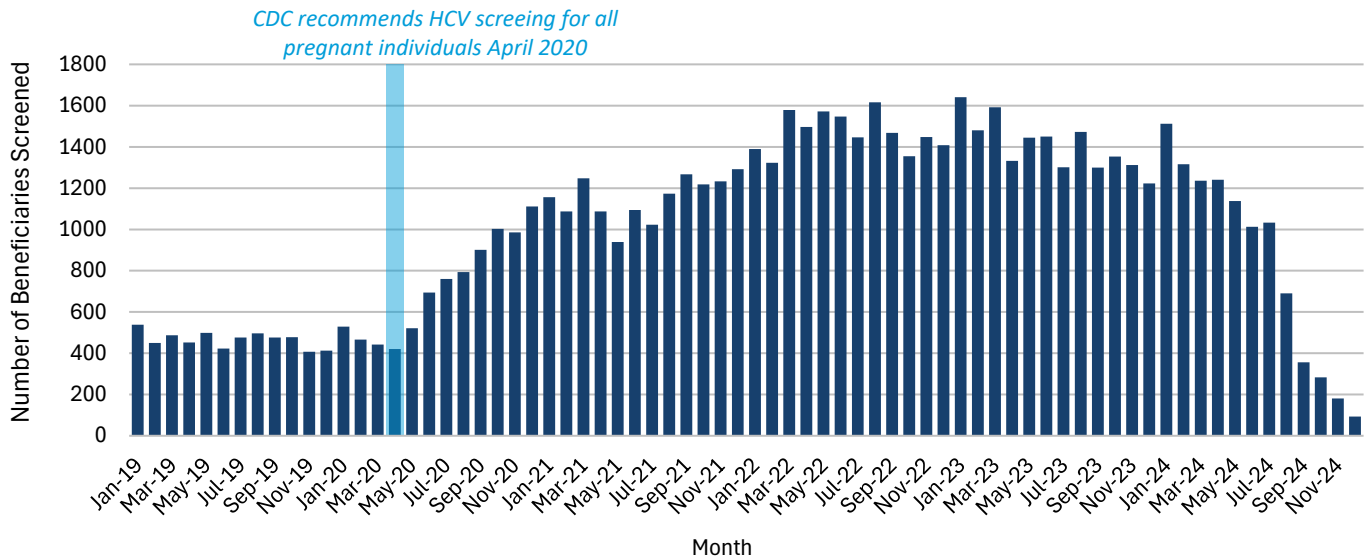
In an effort to eliminate hepatitis C in Michigan, MDHHS partnered with AbbVie to launch the We Treat Hep C Initiative, effective April 1, 2021. As part of the initiative, prior authorization requirements were removed from the antiviral MAVYRET, making it available to all Medicaid and Healthy Michigan Plan beneficiaries at little to no cost. Additionally, the initiative emphasized outreach and partnership with the state’s clinical community to increase the number of prescribers screening and treating patients impacted by HCV. Provided by colleagues in the Michigan Medicaid Program, the following data illustrates the progress of the We Treat Hep C Initiative.

Medicaid Beneficiaries Tested By Month, 2018-2023



During 2024, the average number of Medicaid beneficiaries tested for HCV per month decreased slightly from previous years. After monthly averages decreased to 10,664 in 2020, likely due to effects attributable to Michigan’s “Stay Home, Stay Safe” order during the COVID-19 pandemic, averages increased to 18,376 beneficiaries tested per month in 2023 before falling to 16,398 per month in 2024. Despite the decrease, this far exceeds volumes seen at baseline in 2018.

Medicaid Beneficiaries Tested for HCV During Pregnancy*, 2018-2024

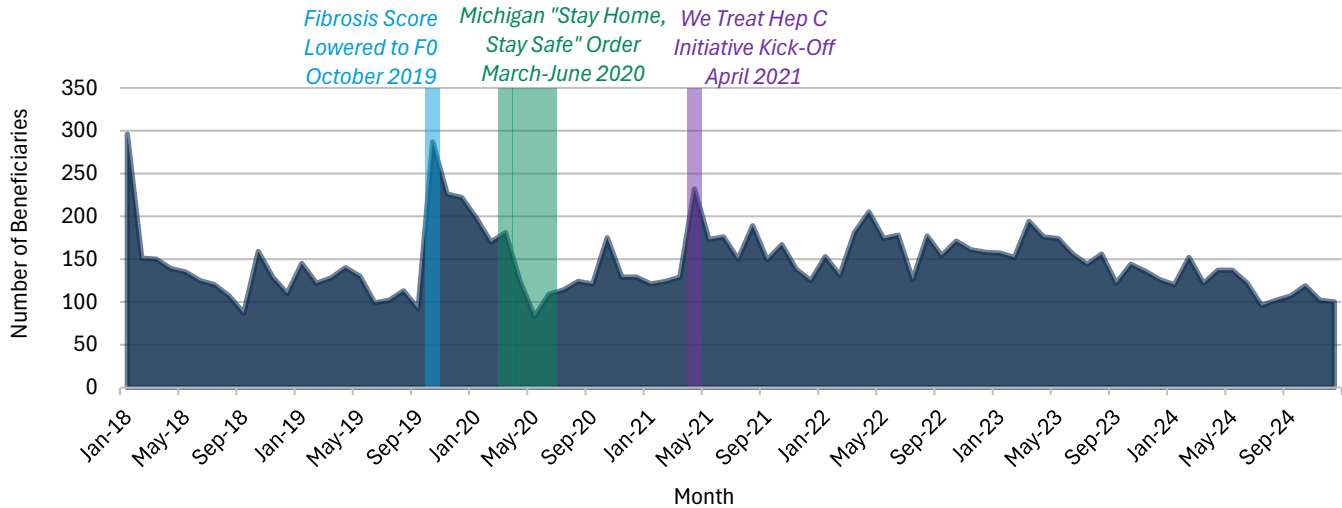


Source: Michigan Medicaid Data Warehouse

WE TREAT HEP C INITIATIVE

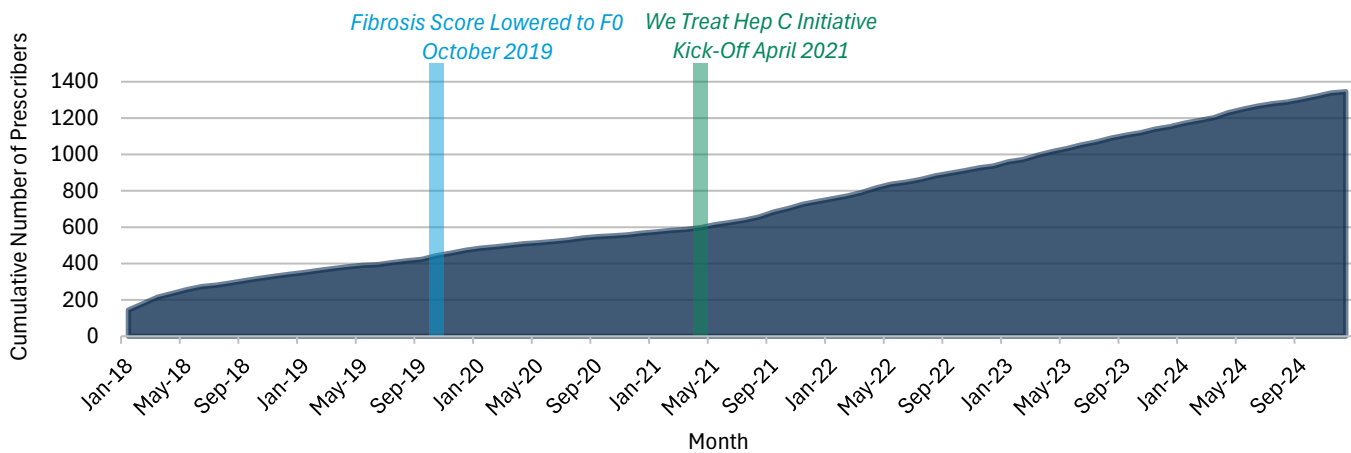
The number of pregnant Medicaid beneficiaries tested per month for HCV has also increased. In April 2020, the CDC recommended screening all pregnant individuals for hepatitis C, regardless of age, which corresponds with the increase in Medicaid beneficiaries tested for HCV during pregnancy first in 2020 and continuing through 2024. However, it should be noted that the data only includes individuals whose pregnancies have ended and does not represent currently pregnant individuals. This aspect of the data likely contributes to the decrease in testing volume seen in the later months of 2024.

Medicaid Beneficiaries that Started HCV Treatment, 2018-2023



Treatment starts saw increases after major restrictions/barriers to HCV treatment were removed. For example, in October of 2018 and 2019, liver fibrosis score requirements for treatment were lowered from F1 to F0, respectively, after which, the number of beneficiaries starting HCV treatment spiked. Another increase in treatment starts occurred in April 2021, after the launch of the We Treat Hep C Initiative. In that first year of the initiative, an average of 156 beneficiaries started HCV treatment each month, higher than all averages in all previous years. A steady rate of treatment has continued, with a monthly average of 118 beneficiaries starting treatment each month in 2024.

Cumulative Total of Prescribers of HCV Treatment for Medicaid Beneficiaries, 2018-2024



The number of providers prescribing treatment for HCV has been steadily increasing since 2018. Following the launch of the We Treat Hep C Initiative in April 2021, the rate of increase for the total number of prescribers grew, resulting in a steady increase in total prescribers through 2024.

HEPATITIS C EMERGING THREATS PROJECT

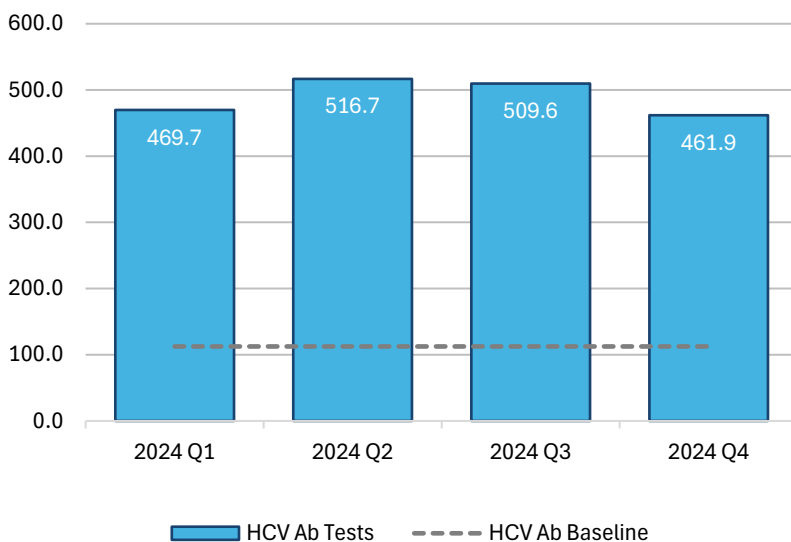
In 2017, the MDHHS Viral Hepatitis Unit wrote a Proposal for Change, which supported the allocation of general funds to LHDs for HCV testing, case investigation, linkage to care and follow-up. The proposal was supported in the governor’s budget and eventually approved by the Michigan legislature.

The project goal was to fund each local health jurisdiction, but a shortage of funds prompted an effort to prioritize a smaller cohort. Therefore, it was decided that funding would be allocated to the 10 jurisdictions with the highest HCV case burden in 2017, according to the MDSS. Disbursement of funds and project implementation began on January 1, 2019. Starting in quarter four of 2021, funding was reduced, which forced the group of funded jurisdictions to shrink to six health departments.

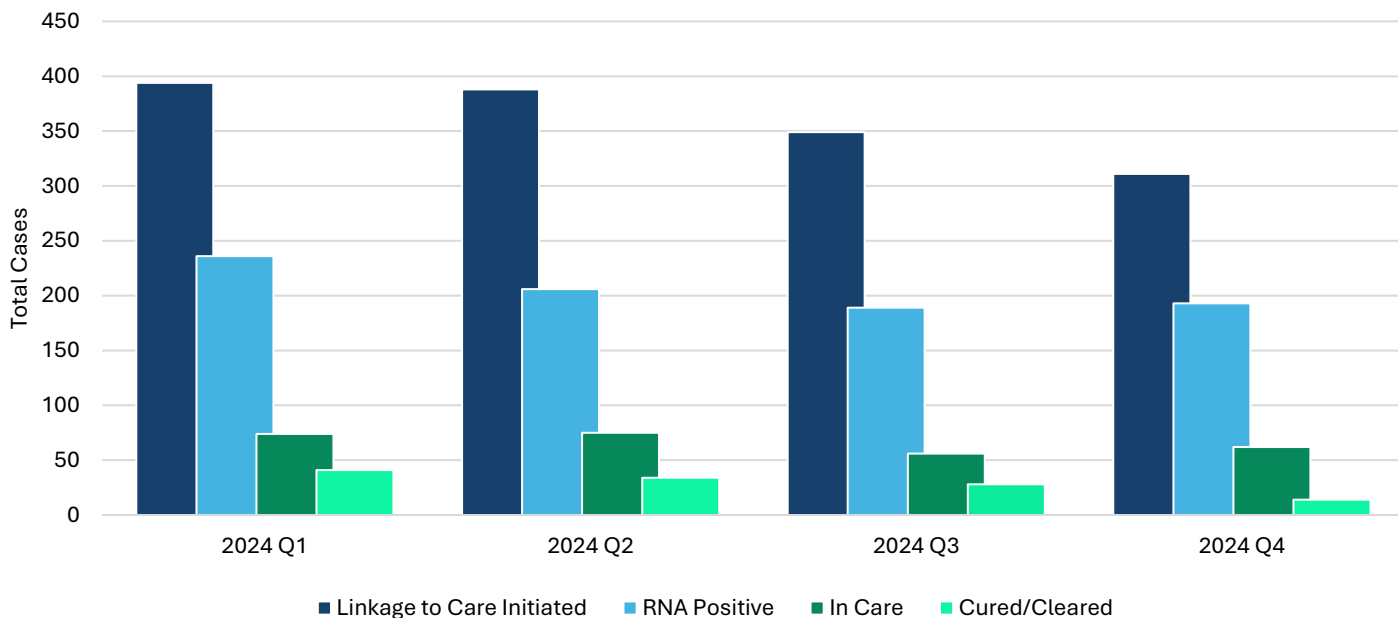
Hepatitis C Testing: Project dollars went to the MDHHS Bureau of Laboratories (BOL) to continue to offer HCV antibody (Ab) and HCV RNA testing services at no cost to our submitters. Since the start of the project (Jan 1, 2019 – Dec 31, 2024), funded health departments have submitted 42,144 HCV specimens to BOL.

Hepatitis C Linkage to Care: In calendar year 2024, funded LHDs reached out to 1,442 individuals to offer linkage to care activities such as informing cases of their HCV lab result, encouraging confirmatory HCV testing (if needed), providing viral hepatitis education and helping to refer and navigate cases through the complex process of hepatitis C treatment (e.g., PCP, HCV treatment providers, insurance). Of those individuals living with hepatitis C and contacted for linkage to care, 267 were linked to care for hepatitis C and 117 have documented cure (or viral clearance).

Combined average number of HCV specimens submitted to BOL from the funded LHDs (Project Period: Q1 2024 - Q4 2024)



Total Hepatitis C Cases by Linkage to Care Activities Performed by the Funded LHDs from Jan 1 - Dec 31, 2024



VIRAL HEPATITIS DISEASE INTERVENTION SPECIALIST UNIT

In October 2021, the Disease Intervention Specialist Unit (DIS) was created to aid in Michigan’s state plan to eliminate hepatitis C. The unit has seven DIS that are responsible for identifying, contacting and linking to care Michigan residents at-risk for or living with hepatitis C.

DIS Services:

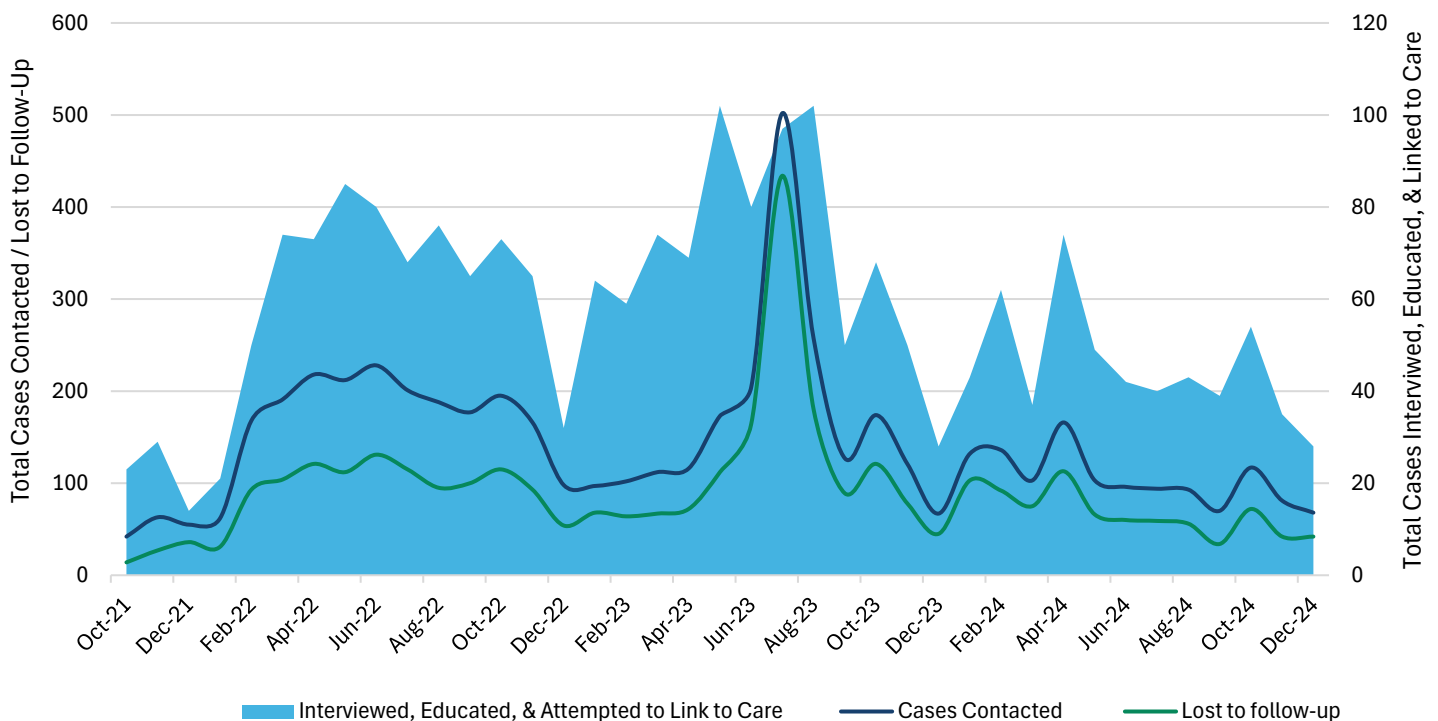
- Provide HCV education.
- Interpret HCV labs.
- Provide harm reduction education.
- Link to care for treatment.
- Link to confirmatory testing.
- Insurance navigation.
- Referrals to community organizations.
- Case management.

Who do the DIS serve?

- Medicaid beneficiaries.
- Perinatal cases.
- Moms and pregnant persons.
- HCV transmission cluster cases.
- HCV/HIV coinfection cases.
- Justice involved cases.
- Any LHD or medical provider who requests support.
- Henry Ford emergency department patients.

From October 1, 2021, to December 31, 2024, the DIS Unit has attempted to contact 5,575 people living with HCV. Although 3,549 of those cases were lost to follow-up, the unit interviewed, educated and attempted to link 2,217 individuals to HCV care.

Michigan HCV DIS Unit Case Follow-up Metrics, Oct 2021-Dec 2024



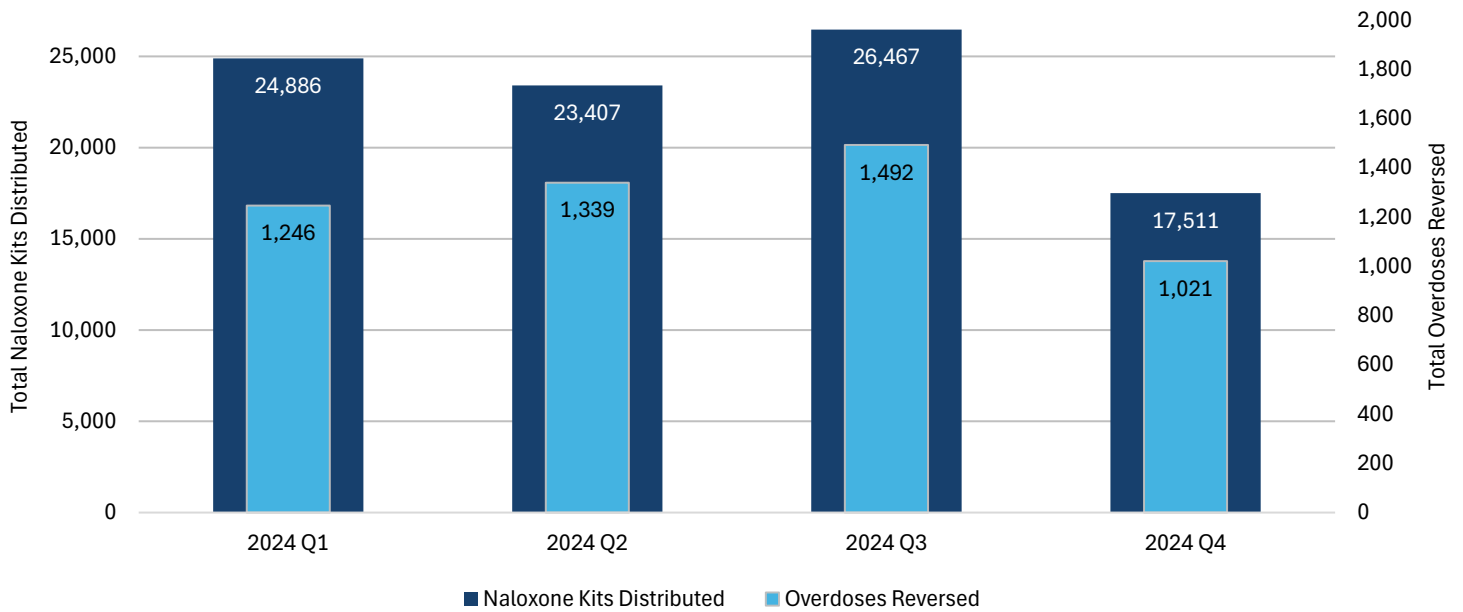
Source: Internal Viral Hepatitis DIS Unit Database

HARM REDUCTION AND SYRINGE SERVICE PROGRAMS

As viral hepatitis data has indicated year after year, there is growing concern for dissemination of infectious disease through use of injection drugs. In response to this pressing issue, MDHHS has supported the development of a statewide harm reduction platform, which includes provision of funds for several existing and start-up syringe service programs (SSPs). Harm reduction is a respectful, non-judgmental approach to reducing the harms of substance use that meets people where they are at. This approach has been proven effective in SSPs and can reduce HCV and HIV prevalence by as much as 50%, reduce fatal and non-fatal overdoses and increase access to substance use disorder treatment and recovery services (which can often include hepatitis C testing and linkage to care).

In fiscal year 2024, MDHHS invested approximately \$7.15 million in harm reduction and SSPs. With inclusion of all operating SSPs in Michigan, as of December 31, 2024, there are now a total of 35 programs operating 115 sites.

Naloxone Kits Distributed and Overdoses Reversed Reported from SSP by Calendar Year Quarter, 2024

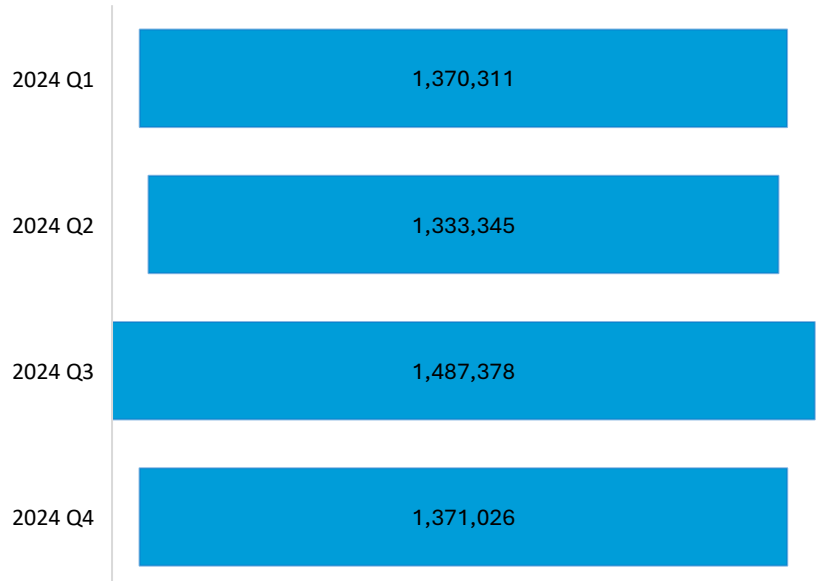


Syringes Dispensed by Michigan SSPs by Quarter, 2024

From the start of data collection through 2024, SSPs in Michigan:

- Provided 8,206 referrals to substance use treatment.
- Provided 316,352 direct interactions with participants.
- Distributed 328,196 naloxone kits.
- Reversed 22,167 overdoses.
- Conducted 4,492 HIV tests.
- Conducted 4,875 hepatitis C tests.

Distributed 19.8 million sterile syringes.



Source: Michigan Syringe Service Program Utilization Platform

VIRAL HEPATITIS DATA BY COUNTY

County	Total Population	2024 Chronic HCV Cases	2024 Acute HCV Cases	2024 Chronic HBV Cases	2024 Acute HBV Cases	2024 Chronic HCV Rate*	2024 Acute HCV Rate*	2024 Chronic HBV Rate*	2024 Acute HBV Rate*
Alcona	10,310	1	0	0	0	9.7	0.0	0.0	0.0
Alger	8,813	1	0	0	0	11.3	0.0	0.0	0.0
Allegan	120,913	10	1	3	1	8.3	0.8	2.5	0.8
Alpena	28,908	6	0	0	0	20.8	0.0	0.0	0.0
Antrim	23,876	3	0	0	1	12.6	0.0	0.0	4.2
Arenac	15,054	4	0	0	0	26.6	0.0	0.0	0.0
Baraga	8,249	8	1	0	0	97.0	12.1	0.0	0.0
Barry	62,982	18	0	3	0	28.6	0.0	4.8	0.0
Bay	103,235	48	1	5	0	46.5	1.0	4.8	0.0
Benzie	18,177	9	0	0	0	49.5	0.0	0.0	0.0
Berrien	153,411	37	1	8	0	24.1	0.7	5.2	0.0
Branch	44,914	8	1	4	1	17.8	2.2	8.9	2.2
Calhoun	133,846	31	0	18	0	23.2	0.0	13.4	0.0
Cass	51,606	10	3	2	1	19.4	5.8	3.9	1.9
Charlevoix	26,143	3	0	0	0	11.5	0.0	0.0	0.0
Cheboygan	25,778	6	0	0	0	23.3	0.0	0.0	0.0
Chippewa	36,448	10	0	2	0	27.4	0.0	5.5	0.0
Clare	31,109	8	2	0	0	25.7	6.4	0.0	0.0
Clinton	79,419	10	0	3	0	12.6	0.0	3.8	0.0
Crawford	13,271	6	0	1	0	45.2	0.0	7.5	0.0
Delta	36,829	13	0	0	0	35.3	0.0	0.0	0.0
Detroit City	636,644	338	1	135	8	53.1	0.2	21.2	1.3
Dickinson	25,940	16	0	0	0	61.7	0.0	0.0	0.0
Eaton	109,000	36	0	10	0	33.0	0.0	9.2	0.0
Emmet	34,159	5	1	0	0	14.6	2.9	0.0	0.0
Genesee	404,087	105	8	29	3	26.0	2.0	7.2	0.7
Gladwin	25,543	8	0	0	0	31.3	0.0	0.0	0.0
Gogebic	14,348	13	0	0	0	90.6	0.0	0.0	0.0
Grand Traverse	95,757	16	0	2	1	16.7	0.0	2.1	1.0
Gratiot	41,478	11	0	0	0	26.5	0.0	0.0	0.0
Hillsdale	45,658	6	1	0	0	13.1	2.2	0.0	0.0
Houghton	37,428	10	0	1	0	26.7	0.0	2.7	0.0
Huron	31,258	4	0	0	0	12.8	0.0	0.0	0.0
Ingham	282,015	88	2	23	0	31.2	0.7	8.2	0.0
Ionia	66,706	18	2	2	0	27.0	3.0	3.0	0.0
Iosco	25,333	9	0	0	0	35.5	0.0	0.0	0.0
Iron	11,650	13	0	2	0	111.6	0.0	17.2	0.0
Isabella	64,475	16	0	3	1	24.8	0.0	4.7	1.6
Jackson	160,187	36	0	8	0	22.5	0.0	5.0	0.0
Kalamazoo	261,437	59	6	22	1	22.6	2.3	8.4	0.4
Kalkaska	18,116	4	0	1	0	22.1	0.0	5.5	0.0
Kent	658,844	64	3	53	0	9.7	0.5	8.0	0.0
Keweenaw	2,106	1	0	0	0	47.5	0.0	0.0	0.0

*Rates are calculated per 100,000 persons in the population

†Due to cases without a defined jurisdiction, statewide totals may include cases that were not included in jurisdiction counts

VIRAL HEPATITIS DATA BY COUNTY

County	Total Population	2024 Chronic HCV Cases	2024 Acute HCV Cases	2024 Chronic HBV Cases	2024 Acute HBV Cases	2024 Chronic HCV Rate*	2024 Acute HCV Rate*	2024 Chronic HBV Rate*	2024 Acute HBV Rate*
Lake	12,393	9	0	0	0	72.6	0.0	0.0	0.0
Lapeer	88,703	12	0	2	0	13.5	0.0	2.3	0.0
Leelanau	22,607	4	0	1	0	17.7	0.0	4.4	0.0
Lenawee	98,823	16	1	3	1	16.2	1.0	3.0	1.0
Livingston	195,143	16	3	4	1	8.2	1.5	2.0	0.5
Luce	6,325	0	0	0	0	0.0	0.0	0.0	0.0
Mackinac	10,865	3	0	0	0	27.6	0.0	0.0	0.0
Macomb	877,624	214	9	76	8	24.4	1.0	8.7	0.9
Manistee	25,247	6	0	0	0	23.8	0.0	0.0	0.0
Marquette	66,430	30	0	0	0	45.2	0.0	0.0	0.0
Mason	29,177	6	0	1	0	20.6	0.0	3.4	0.0
Mecosta	40,321	15	0	0	0	37.2	0.0	0.0	0.0
Menominee	23,295	11	0	0	0	47.2	0.0	0.0	0.0
Midland	83,641	15	0	4	0	17.9	0.0	4.8	0.0
Missaukee	15,156	5	0	1	0	33.0	0.0	6.6	0.0
Monroe	155,001	46	1	5	2	29.7	0.6	3.2	1.3
Montcalm	67,174	13	0	0	0	19.4	0.0	0.0	0.0
Montmorency	9,372	3	0	0	0	32.0	0.0	0.0	0.0
Muskegon	175,378	42	0	7	0	23.9	0.0	4.0	0.0
Newaygo	50,414	11	0	1	0	21.8	0.0	2.0	0.0
Oakland	1,272,294	177	8	162	14	13.9	0.6	12.7	1.1
Oceana	26,788	10	0	0	0	37.3	0.0	0.0	0.0
Ogemaw	20,853	10	0	0	0	48.0	0.0	0.0	0.0
Ontonagon	5,870	3	0	0	0	51.1	0.0	0.0	0.0
Osceola	23,122	5	0	1	0	21.6	0.0	4.3	0.0
Oscoda	8,338	10	1	0	0	119.9	12.0	0.0	0.0
Otsego	25,352	9	0	1	1	35.5	0.0	3.9	3.9
Ottawa	298,614	25	2	14	1	8.4	0.7	4.7	0.3
Presque Isle	13,142	0	0	0	0	0.0	0.0	0.0	0.0
Roscommon	23,639	8	0	1	1	33.8	0.0	4.2	4.2
Saginaw	189,210	51	0	7	0	27.0	0.0	3.7	0.0
St Clair	160,089	50	2	7	1	31.2	1.2	4.4	0.6
St Joseph	60,870	10	0	3	3	16.4	0.0	4.9	4.9
Sanilac	40,574	9	0	3	0	22.2	0.0	7.4	0.0
Schoolcraft	8,093	0	0	0	0	0.0	0.0	0.0	0.0
Shiawassee	68,061	8	0	1	0	11.8	0.0	1.5	0.0
Tuscola	53,071	5	7	0	0	9.4	13.2	0.0	0.0
Van Buren	75,681	18	1	1	0	23.8	1.3	1.3	0.0
Washtenaw	368,394	48	2	32	1	13.0	0.5	8.7	0.3
Wayne	1,137,123	294	4	160	1	25.9	0.4	14.1	0.1
Wexford	33,868	10	1	0	0	29.5	3.0	0.0	0.0
MDOC	32,374	84	9	3	0	259.5	27.8	9.3	0.0
Statewide†	10,051,595	2,447	85	841	53	24.3	0.8	8.4	0.5

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VIRAL HEPATITIS DATA BY COUNTY

County	2023 Population Age 30-45 Years	2023 Baby Boomer Population (Age 60-79)	2024 HCV Cases Age 30-45 Years	2024 Baby Boomer HCV Cases (Birth Yr 1945-65)	2024 HCV Rate Age 30-45 Years*	2024 Baby Boomer HCV Rate (Birth Yr 1945-65)	Age 30-45 Years Proportion of All HCV Cases	Baby Boomer Proportion of All HCV Cases
Alcona	1,170	4,205	0	<5	0.0	N/A	0.0%	N/A
Alger	1,431	2,635	0	<5	0.0	N/A	0.0%	N/A
Allegan	22,375	26,003	<5	<5	N/A	N/A	N/A	N/A
Alpena	4,768	8,104	<5	<5	N/A	N/A	N/A	N/A
Antrim	3,462	7,844	<5	0	N/A	0.0	N/A	0.0%
Arenac	2,319	4,581	<5	<5	N/A	N/A	N/A	N/A
Baraga	1,467	2,095	<5	<5	N/A	N/A	N/A	N/A
Barry	11,657	14,254	<5	6	N/A	42.1	N/A	33.3%
Bay	18,565	25,470	24	10	129.3	39.3	49.0%	20.4%
Benzie	2,933	5,592	5	<5	170.5	N/A	55.6%	N/A
Berrien	27,049	35,655	13	15	48.1	42.1	34.2%	39.5%
Branch	8,113	10,265	<5	<5	N/A	N/A	N/A	N/A
Calhoun	24,524	28,256	10	9	40.8	31.9	32.3%	29.0%
Cass	8,467	13,249	6	<5	70.9	N/A	46.2%	N/A
Charlevoix	4,112	8,020	0	0	0.0	0.0	0.0%	0.0%
Cheboygan	3,748	8,446	<5	0	N/A	0.0	N/A	0.0%
Chippewa	6,845	8,149	7	<5	102.3	N/A	70.0%	N/A
Clare	4,769	8,810	<5	5	N/A	56.8	N/A	50.0%
Clinton	14,996	16,543	<5	6	N/A	36.3	N/A	60.0%
Crawford	1,999	4,422	<5	<5	N/A	N/A	N/A	N/A
Delta	5,868	10,800	9	<5	153.4	N/A	69.2%	N/A
Detroit City	124,405	111,170	69	164	55.5	147.5	20.4%	48.4%
Dickinson	4,274	7,039	7	5	163.8	71.0	43.8%	31.3%
Eaton	20,742	24,035	15	9	72.3	37.4	41.7%	25.0%
Emmet	5,738	9,339	<5	<5	N/A	N/A	N/A	N/A
Genesee	72,357	85,997	42	52	58.0	60.5	37.2%	46.0%
Gladwin	3,708	7,720	<5	<5	N/A	N/A	N/A	N/A
Gogebic	2,282	4,408	5	<5	219.1	N/A	38.5%	N/A
Grand Traverse	17,935	22,852	6	5	33.5	21.9	37.5%	31.3%
Gratiot	8,203	8,285	<5	<5	N/A	N/A	N/A	N/A
Hillsdale	7,414	11,303	<5	<5	N/A	N/A	N/A	N/A
Houghton	5,445	7,433	5	<5	91.8	N/A	50.0%	N/A
Huron	4,620	9,364	<5	0	N/A	0.0	N/A	0.0%
Ingham	51,869	48,783	41	16	79.0	32.8	45.6%	17.8%
Ionia	14,321	12,662	7	8	48.9	63.2	35.0%	40.0%
Iosco	3,548	8,496	<5	<5	N/A	N/A	N/A	N/A
Iron	1,658	3,919	7	6	422.2	153.1	53.8%	46.2%
Isabella	10,248	10,519	6	<5	58.5	N/A	37.5%	N/A
Jackson	29,664	34,353	14	6	47.2	17.5	38.9%	16.7%
Kalamazoo	48,474	47,103	24	19	49.5	40.3	36.9%	29.2%
Kalkaska	3,305	4,669	<5	<5	N/A	N/A	N/A	N/A
Kent	138,940	114,035	20	28	14.4	24.6	29.9%	41.8%
Keweenaw	288	787	<5	0	N/A	0.0	N/A	0.0%

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Note: Due to internal data suppression guidelines, some aggregate counts and corresponding rates required censorship

VIRAL HEPATITIS DATA BY COUNTY

County	2023 Population Age 30-45 Years	2023 Baby Boomer Population (Age 60-79)	2024 HCV Cases Age 30-45 Years	2024 Baby Boomer HCV Cases (Birth Yr 1945-65)	2024 HCV Rate Age 30-45 Years*	2024 Baby Boomer HCV Rate (Birth Yr 1945-65)	Age 30-45 Years Proportion of All HCV Cases	Baby Boomer Proportion of All HCV Cases
Lake	2,085	3,829	<5	<5	N/A	N/A	N/A	N/A
Lapeer	15,245	21,767	5	6	32.8	27.6	41.7%	50.0%
Leelanau	3,244	7,997	0	<5	0.0	N/A	0.0%	N/A
Lenawee	17,751	23,119	8	5	45.1	21.6	47.1%	29.4%
Livingston	34,403	45,696	7	10	20.3	21.9	36.8%	52.6%
Luce	1,297	1,657	0	0	0.0	0.0	0.0%	0.0%
Mackinac	1,622	3,410	<5	0	N/A	0.0	N/A	0.0%
Macomb	166,194	182,982	79	81	47.5	44.3	35.4%	36.3%
Manistee	3,990	7,846	<5	<5	N/A	N/A	N/A	N/A
Marquette	11,432	14,931	20	<5	174.9	N/A	66.7%	N/A
Mason	4,694	8,279	<5	<5	N/A	N/A	N/A	N/A
Mecosta	6,310	9,458	6	<5	95.1	N/A	40.0%	N/A
Menominee	3,541	6,893	5	<5	141.2	N/A	45.5%	N/A
Midland	15,752	18,378	<5	8	N/A	43.5	N/A	53.3%
Missaukee	2,646	3,699	<5	<5	N/A	N/A	N/A	N/A
Monroe	28,200	35,662	22	13	78.0	36.5	46.8%	27.7%
Montcalm	12,917	13,984	<5	<5	N/A	N/A	N/A	N/A
Montmorency	1,149	3,541	<5	<5	N/A	N/A	N/A	N/A
Muskegon	33,444	36,498	14	19	41.9	52.1	33.3%	45.2%
Newaygo	8,722	12,003	<5	<5	N/A	N/A	N/A	N/A
Oakland	248,146	264,959	62	58	25.0	21.9	33.5%	31.4%
Oceana	4,493	6,811	<5	<5	N/A	N/A	N/A	N/A
Ogemaw	3,149	6,753	0	7	0.0	103.7	0.0%	70.0%
Ontonagon	629	2,426	0	<5	0.0	N/A	0.0%	N/A
Osceola	3,804	6,014	<5	<5	N/A	N/A	N/A	N/A
Oscoda	1,160	2,716	<5	<5	N/A	N/A	N/A	N/A
Otsego	4,438	6,284	<5	<5	N/A	N/A	N/A	N/A
Ottawa	54,649	53,917	10	7	18.3	13.0	37.0%	25.9%
Presque Isle	1,739	4,798	0	0	0.0	0.0	0.0%	0.0%
Roscommon	3,058	8,824	5	<5	163.5	N/A	62.5%	N/A
Saginaw	32,838	42,059	21	13	64.0	30.9	41.2%	25.5%
St Clair	26,975	37,191	34	9	126.0	24.2	65.4%	17.3%
St Joseph	10,805	12,930	<5	<5	N/A	N/A	N/A	N/A
Sanilac	6,469	10,579	<5	5	N/A	47.3	N/A	55.6%
Schoolcraft	1,066	2,689	0	0	0.0	0.0	0.0%	0.0%
Shiawassee	12,072	16,097	<5	<5	N/A	N/A	N/A	N/A
Tuscola	9,131	13,477	<5	5	N/A	37.1	N/A	41.7%
Van Buren	13,578	17,704	6	8	44.2	45.2	31.6%	42.1%
Washtenaw	68,207	65,366	17	16	24.9	24.5	34.0%	32.0%
Wayne	215,247	226,869	79	111	36.7	48.9	26.5%	37.2%
Wexford	6,078	7,943	5	<5	82.3	N/A	45.5%	N/A
MDOC	14,586	3,451	59	8	404.5	231.8	63.4%	8.6%
Statewide†	1,862,444	2,125,704	915	855	49.1	40.2	36.1%	33.8%

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VIRAL HEPATITIS DATA BY LOCAL HEALTH JURISDICTION

Local Health Jurisdiction	Total Population	2024 Chronic HCV Cases	2024 Acute HCV Cases	2024 Chronic HBV Cases	2024 Acute HBV Cases	2024 Chronic HCV Rate*	2024 Acute HCV Rate*	2024 Chronic HBV Rate*	2024 Acute HBV Rate*
Allegan	120,913	10	1	3	1	8.3	0.8	2.5	0.8
Barry-Eaton	171,982	54	0	13	0	31.4	0.0	7.6	0.0
Bay	103,235	48	1	5	0	46.5	1.0	4.8	0.0
Benzie-Leelanau	40,784	13	0	1	0	31.9	0.0	2.5	0.0
Berrien	153,411	37	1	8	0	24.1	0.7	5.2	0.0
Branch-Hillsdale-St. Joseph	151,442	24	2	7	4	15.8	1.3	4.6	2.6
Calhoun	133,846	31	0	18	0	23.2	0.0	13.4	0.0
Central Michigan	182,942	49	2	5	2	26.8	1.1	2.7	1.1
Chippewa	36,448	10	0	2	0	27.4	0.0	5.5	0.0
Delta-Menominee	60,124	24	0	0	0	39.9	0.0	0.0	0.0
Detroit City	636,644	338	1	135	8	53.1	0.2	21.2	1.3
Dickinson-Iron	37,590	29	0	2	0	77.1	0.0	5.3	0.0
District Health Department #10	264,751	82	1	5	0	31.0	0.4	1.9	0.0
District Health Department #2	64,834	30	1	0	0	46.3	1.5	0.0	0.0
District Health Department #4	77,200	15	0	0	0	19.4	0.0	0.0	0.0
Genesee	404,087	105	8	29	3	26.0	2.0	7.2	0.7
Grand Traverse	95,757	16	0	2	1	16.7	0.0	2.1	1.0
Huron	31,258	4	0	0	0	12.8	0.0	0.0	0.0
Ingham	282,015	88	2	23	0	31.2	0.7	8.2	0.0
Ionia	66,706	18	2	2	0	27.0	3.0	3.0	0.0
Jackson	160,187	36	0	8	0	22.5	0.0	5.0	0.0
Kalamazoo	261,437	59	6	22	1	22.6	2.3	8.4	0.4
Kent	658,844	64	3	53	0	9.7	0.5	8.0	0.0
Lapeer	88,703	12	0	2	0	13.5	0.0	2.3	0.0
Lenawee	98,823	16	1	3	1	16.2	1.0	3.0	1.0
Livingston	195,143	16	3	4	1	8.2	1.5	2.0	0.5
Luce-Mackinac-Alger-Schoolcraft	34,096	4	0	0	0	11.7	0.0	0.0	0.0
Macomb	877,624	214	9	76	8	24.4	1.0	8.7	0.9
Marquette	66,430	30	0	0	0	45.2	0.0	0.0	0.0
Midland	83,641	15	0	4	0	17.9	0.0	4.8	0.0
Mid-Michigan	188,071	34	0	3	0	18.1	0.0	1.6	0.0
Monroe	155,001	46	1	5	2	29.7	0.6	3.2	1.3
Muskegon	175,378	42	0	7	0	23.9	0.0	4.0	0.0
Northwest Michigan	109,530	20	1	1	2	18.3	0.9	0.9	1.8
Oakland	1,272,294	177	8	162	14	13.9	0.6	12.7	1.1
Ottawa	298,614	25	2	14	1	8.4	0.7	4.7	0.3
Saginaw	189,210	51	0	7	0	27.0	0.0	3.7	0.0
Sanilac	40,574	9	0	3	0	22.2	0.0	7.4	0.0
Shiawassee	68,061	8	0	1	0	11.8	0.0	1.5	0.0
St Clair	160,089	50	2	7	1	31.2	1.2	4.4	0.6
Tuscola	53,071	5	7	0	0	9.4	13.2	0.0	0.0
Van Buren-Cass	127,287	28	4	3	1	22.0	3.1	2.4	0.8
Washtenaw	368,394	48	2	32	1	13.0	0.5	8.7	0.3
Wayne	1,137,123	294	4	160	1	25.9	0.4	14.1	0.1
Western Upper Peninsula	68,001	35	1	1	0	51.5	1.5	1.5	0.0
MDOC	32,374	84	9	3	0	259.5	27.8	9.3	0.0
Statewide†	10,051,595	2,447	85	841	53	24.3	0.8	8.4	0.5

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VIRAL HEPATITIS DATA BY LOCAL HEALTH JURISDICTION

Local Health Jurisdiction	2023 Population Age 30-45 Years	2023 Baby Boomer Population (Age 60-79)	2024 HCV Cases Age 30-45 Years	2024 Baby Boomer HCV Cases (Birth Yr 1945-65)	2024 HCV Rate Age 30-45 Years*	2024 Baby Boomer HCV Rate (Birth Yr 1945-65)	Age 30-45 Years Proportion of All HCV Cases	Baby Boomer Proportion of All HCV Cases
Allegan	22,375	26,003	<5	<5	N/A	N/A	N/A	N/A
Barry-Eaton	32,399	38,289	18	15	55.6	39.2	33.3%	27.8%
Bay	18,565	25,470	24	10	129.3	39.3	49.0%	20.4%
Benzie-Leelanau	6,177	13,589	5	5	80.9	36.8	38.5%	38.5%
Berrien	27,049	35,655	13	15	48.1	42.1	34.2%	39.5%
Branch-Hillsdale-St. Joseph	26,332	34,498	10	6	38.0	17.4	38.5%	23.1%
Calhoun	24,524	28,256	10	9	40.8	31.9	32.3%	29.0%
Central Michigan	27,906	46,468	22	18	78.8	38.7	43.1%	35.3%
Chippewa	6,845	8,149	7	<5	102.3	N/A	70.0%	N/A
Delta-Menominee	9,409	17,693	14	<5	148.8	N/A	58.3%	N/A
Detroit City	124,405	111,170	69	164	55.5	147.5	20.4%	48.4%
Dickinson-Iron	5,932	10,958	14	11	236.0	100.4	48.3%	37.9%
District Health Department #10	44,322	68,959	34	25	76.7	36.3	41.0%	30.1%
District Health Department #2	9,027	22,170	7	15	77.5	67.7	22.6%	48.4%
District Health Department #4	11,404	24,889	8	<5	70.2	N/A	53.3%	N/A
Genesee	72,357	85,997	42	52	58.0	60.5	37.2%	46.0%
Grand Traverse	17,935	22,852	6	5	33.5	21.9	37.5%	31.3%
Huron	4,620	9,364	<5	0	N/A	0.0	N/A	0.0%
Ingham	51,869	48,783	41	16	79.0	32.8	45.6%	17.8%
Ionia	14,321	12,662	7	8	48.9	63.2	35.0%	40.0%
Jackson	29,664	34,353	14	6	47.2	17.5	38.9%	16.7%
Kalamazoo	48,474	47,103	24	19	49.5	40.3	36.9%	29.2%
Kent	138,940	114,035	20	28	14.4	24.6	29.9%	41.8%
Lapeer	15,245	21,767	5	6	32.8	27.6	41.7%	50.0%
Lenawee	17,751	23,119	8	5	45.1	21.6	47.1%	29.4%
Livingston	34,403	45,696	7	10	20.3	21.9	36.8%	52.6%
Luce-Mackinac-Alger-Schoolcraft	5,416	10,391	<5	<5	N/A	N/A	N/A	N/A
Macomb	166,194	182,982	79	81	47.5	44.3	35.4%	36.3%
Marquette	11,432	14,931	20	<5	174.9	N/A	66.7%	N/A
Midland	15,752	18,378	<5	8	N/A	43.5	N/A	53.3%
Mid-Michigan	36,116	38,812	10	9	27.7	23.2	29.4%	26.5%
Monroe	28,200	35,662	22	13	78.0	36.5	46.8%	27.7%
Muskegon	33,444	36,498	14	19	41.9	52.1	33.3%	45.2%
Northwest Michigan	17,750	31,487	10	<5	56.3	N/A	47.6%	N/A
Oakland	248,146	264,959	62	58	25.0	21.9	33.5%	31.4%
Ottawa	54,649	53,917	10	7	18.3	13.0	37.0%	25.9%
Saginaw	32,838	42,059	21	13	64.0	30.9	41.2%	25.5%
Sanilac	6,469	10,579	<5	5	N/A	47.3	N/A	55.6%
Shiawassee	12,072	16,097	<5	<5	N/A	N/A	N/A	N/A
St Clair	26,975	37,191	34	9	126.0	24.2	65.4%	17.3%
Tuscola	9,131	13,477	<5	5	N/A	37.1	N/A	41.7%
Van Buren-Cass	22,045	30,953	12	11	54.4	35.5	37.5%	34.4%
Washtenaw	68,207	65,366	17	16	24.9	24.5	34.0%	32.0%
Wayne	215,247	226,869	79	111	36.7	48.9	26.5%	37.2%
Western Upper Peninsula	10,111	17,149	15	11	148.4	64.1	41.7%	30.6%
MDOC	14,586	3,451	59	8	404.5	231.8	63.4%	8.6%
Statewide†	1,862,444	2,125,704	915	855	49.1	40.2	36.1%	33.8%

*Rates are calculated per 100,000 persons in the population

†Due to cases without a defined jurisdiction, statewide totals may include cases that were not included in jurisdiction counts

Note: Due to internal data suppression guidelines, some aggregate counts and corresponding rates required censorship

VIRAL HEPATITIS DATA BY EMERGENCY PREPAREDNESS REGION

Region	Total Population	2024 Chronic HCV Cases	2024 Acute HCV Cases	2024 Chronic HBV Cases	2024 Acute HBV Cases	2024 Chronic HCV Rate*	2024 Acute HCV Rate*	2024 Chronic HBV Rate*	2024 Acute HBV Rate*
1	1,079,784	227	7	52	2	21.0	0.6	4.8	0.2
3	1,099,210	291	17	50	3	26.5	1.5	4.5	0.3
5	965,660	201	13	64	7	20.8	1.3	6.6	0.7
6	1,544,515	242	9	82	2	15.7	0.6	5.3	0.1
7	452,568	103	2	8	4	22.8	0.4	1.8	0.9
8	302,689	132	1	5	0	43.6	0.3	1.7	0.0
2N	2,310,007	441	19	245	23	19.1	0.8	10.6	1.0
2S	2,297,162	726	8	332	12	31.6	0.3	14.5	0.5
MDOC	32,374	84	9	3	0	259.5	27.8	9.3	0.0
Statewide†	10,051,595	2,447	85	841	53	24.3	0.8	8.4	0.5

*Rates are calculated per 100,000 persons in the population

†Due to cases without a defined jurisdiction, statewide totals may include cases that were not included in jurisdiction counts

Region	2023 Population Age 30-45 Years	2023 Baby Boomer Population (Age 60-79)	2024 HCV Cases Age 30-45 Years	2024 Baby Boomer HCV Cases (Birth Yr 1945-65)	2024 HCV Rate Age 30-45 Years*	2024 Baby Boomer HCV Rate (Birth Yr 1945-65)	Age 30-45 Years Proportion of All HCV Cases	Baby Boomer Proportion of All HCV Cases
1	197,114	228,214	98	58	49.7	25.4	41.9%	24.8%
3	190,031	261,562	118	120	62.1	45.9	38.3%	39.0%
5	175,042	205,419	72	68	41.1	33.1	33.6%	31.8%
6	299,396	296,819	88	88	29.4	29.6	35.1%	35.1%
7	74,342	130,220	47	30	63.2	23.0	44.8%	28.6%
8	49,145	79,271	71	31	144.5	39.1	53.4%	23.3%
2N	441,315	485,132	175	148	39.7	30.5	38.0%	32.2%
2S	436,059	439,067	187	304	42.9	69.2	25.5%	41.4%
MDOC	14,586	3,451	59	8	404.5	231.8	63.4%	8.6%
Statewide†	1,862,444	2,125,704	915	855	49.1	40.2	36.1%	33.8%

*Rates are calculated per 100,000 persons in the population

†Due to cases without a defined jurisdiction, statewide totals may include cases that were not included in jurisdiction counts

Note: Due to internal data suppression guidelines, some aggregate counts and corresponding rates required censorship