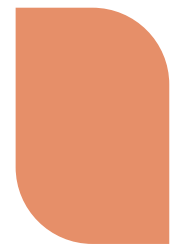


Hepatitis B and Wisconsin Hepatitis Elimination



Stephanie Borchardt, PhD, MPH and Kailynn Mitchell, MPH
Wisconsin Department of Health Services
January 22nd, 2026



Hepatitis B

Stephanie Borchardt, PhD, MPH

Epidemiologist

Wisconsin Department of Health Services



Background–Hepatitis B Virus

- DNA virus causes liver inflammation, cirrhosis, and liver cancer.
- Transmitted by percutaneous or mucosal exposure to infectious blood or body fluids (birth, sex, needles, sharps injury).
- Highly infectious—household transmission can occur from microscopic contamination of razors, toothbrushes, and so on.
- Virus can live for up to seven days on surfaces or objects touched by an infected person.



Burden of Hepatitis B–United States

Causes 14,000 to 20,000 new infections per year.

Causes 1,500-2,000 deaths per year.

About 50% of infected people do not know they are infected.

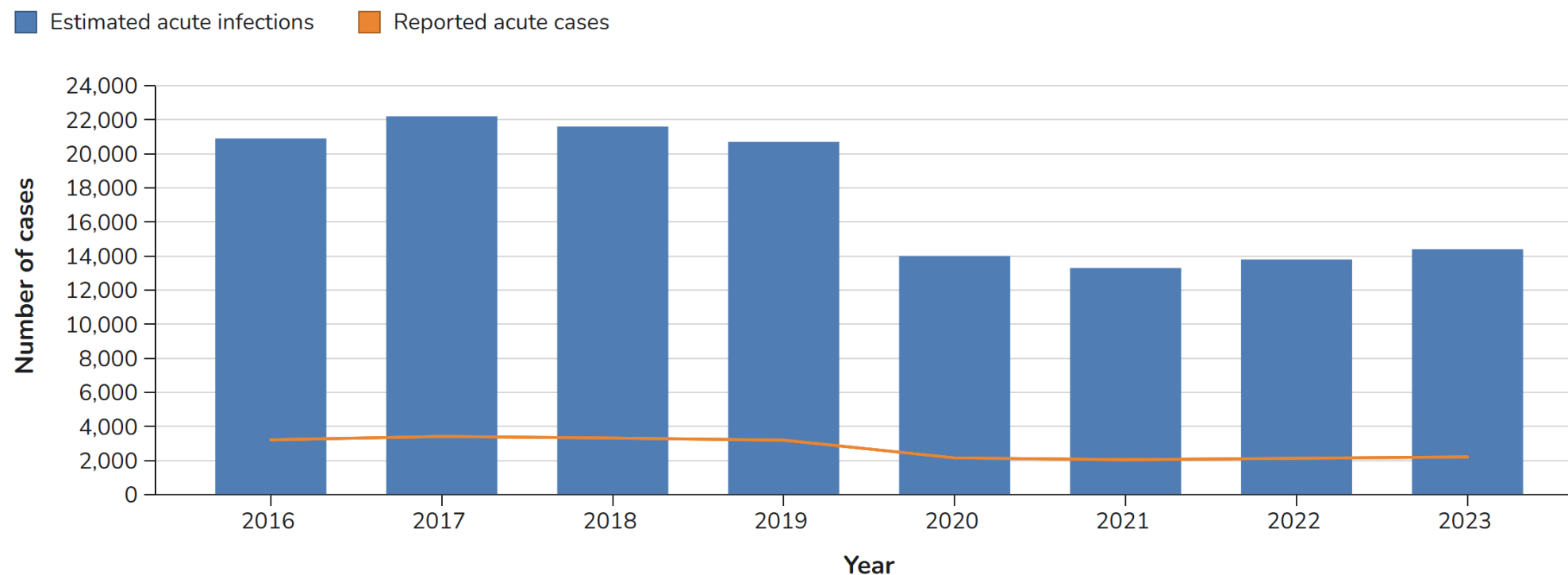


Burden of Hepatitis B–United States

- Prior to vaccinating infants, about 18,000 children became infected by 10 years of age.
 - About 50% were infected by their mother.
 - About 50% were infected by someone else.
- 90% of children infected in their first year of life will become chronically infected and about 25% of those with chronic infection will die early due to hepatitis B liver disease.

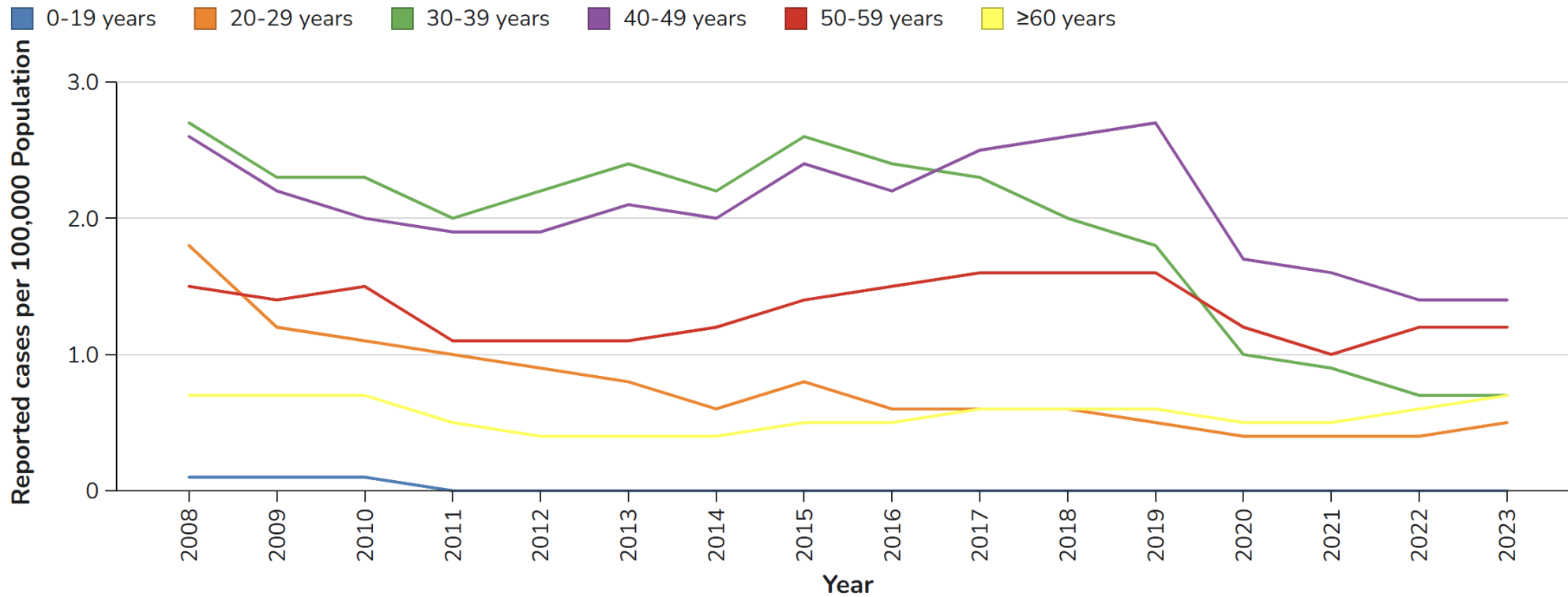


Number of reported cases* and estimated infections† of acute hepatitis B – United States, 2016–2023



<https://www.cdc.gov/hepatitis-surveillance-2023/hepatitis-b/>

Rates* of reported cases† of acute hepatitis B, by age group – United States, 2008–2023



<https://www.cdc.gov/hepatitis-surveillance-2023/hepatitis-b/>



Routine Infant Vaccination

- Universal prenatal screening and newborn vaccination were developed to protect infants and children from HBV infection.
- This strategy has been in place for decades.

Infants born to infected mothers by age 3 months

1982

Infants born to infected mothers or to mothers with unknown status at birth.

All other infants prior to hospital discharge or at 1–2 months of age

1991

All infants at birth

2002

Routine Infant Vaccination



- Routine universal vaccination is recommended for all medically stable newborns weighing ≥ 2000 g within the first 24 hours of birth.*
- Providers should complete the 3- dose series.
 - Second dose at 1–2 months of age.
 - Third dose at 6 months of age.

*Infants whose birth parent is HBsAg positive, or status unknown have slightly different management (discussed later).

December 2025 ACIP Vote



- ACIP voted to change recommendations from a universal recommendation for all infants to **individual-based decision making** for infants born to women who:
 - Are Hepatitis B surface antigen (HBsAg) negative.
 - Have an unknown HBsAg status.
- For those not receiving the birth dose, it was suggested the initial dose be administered no earlier than 2 months of age.
- Also recommended serology to determine need for subsequent doses of vaccine.

December 2025 ACIP Vote



There was no new evidence that justified these changes to the recommendations.



Concerns

Despite the recommendation for universal testing of people who are pregnant for hepatitis B infection:

- Not all receive screening.
- The test does not detect 100% of infections.
- People can become infected between the time of the screening and the birth of their baby.
- 50% of infants who become infected are infected by someone other than their mother.

Concerns



Removal of hepatitis B vaccine birth dose will increase the incidence of childhood chronic illness at a rate of approximately 18,000 cases per year in the U.S.

Evidence to Support Universal Vaccination



- An independent analysis conducted in late 2025 of more than 400 studies continues to support routine vaccination of all infants at birth.
- Professional organizations, like the American Academy of Pediatrics (AAP), continue to recommend the universal birth dose.

DECEMBER 2, 2025

Universal Hepatitis B Vaccination at Birth *Safety, Effectiveness, and Public Health Impact*

An independent evidence review of the safety, effectiveness, and public health impact of universal hepatitis B vaccination at birth to compare current recommendations with a delayed first hepatitis vaccine dose at one month or more after birth.



Evidence to Support Universal Vaccination





Wisconsin guidance aligns with extensive evidence that supports the safety and efficacy of the Hepatitis B vaccine and continuation of universal vaccination at birth.

DECEMBER 2, 2025

Universal Hepatitis B Vaccination at Birth

Safety, Effectiveness, and Public Health Impact

An independent evidence review of the safety, effectiveness, and public health impact of universal hepatitis B vaccination at birth to compare current recommendations with a delayed first hepatitis vaccine dose at one month or more after birth.



The Vaccine Integrity Project logo features a blue square with a white border containing a white syringe icon and the text 'VACCINE INTEGRITY PROJECT' in blue. The CIDRAP logo features a colorful geometric icon to the left of the text 'CIDRAP' in red, with 'Center for Infectious Disease Research and Policy' and 'UNIVERSITY OF MINNESOTA' in smaller text below.

Wisconsin Guidance



STATE OF WISCONSIN
Department of Health Services
Division of Public Health



1 West Wilson Street
PO Box 2659
Madison WI 53701-2659

Telephone: 608-267-9003
Fax: 608-261-4976
TTY: 888-701-1253

Date: December 11, 2025

BCD 2025-05

To: Wisconsin Vaccinators

From: Ryan Westergaard, MD, Ph.D. Chief Medical Officer and State Epidemiologist for
Communicable Disease

Hepatitis B Vaccine Recommendations

PLEASE DISTRIBUTE WIDELY

Summary

- The Wisconsin Department of Health Services (DHS) continues to recommend routine administration of the hepatitis B vaccine within 24 hours after birth for all newborns and the full 3-dose vaccine series for all children by 18 months.
- Serologic testing has no demonstrated role for guiding the schedule of doses in children born to hepatitis B–negative mothers, and is not recommended.
- No new clinical data, on either safety or effectiveness, were presented at the recent CDC ACIP meeting that would justify changes to this longstanding and successful public health practice. Wisconsin recommendations align with the American Academy of Pediatrics' Recommended Child and Adolescent Immunization Schedule.

Current Wisconsin Guidance



- There is no change in clinical practice around Hepatitis B vaccination of infants.
- Newborns should continue to receive a dose of Hepatitis B vaccine within 24 hours of birth.
- Should continue to provide the full series, in accordance with American Academy of Pediatrics schedule.
- Serologic testing should **not** be used to determine the need for future doses in lieu of administering the series.

American Academy of Pediatrics Schedule



Table 1 Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2025

These recommendations must be read with the **Notes** that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the outlined purple bars . To determine minimum intervals between doses, see the catch-up schedule (Table 2).

Vaccine and other immunizing agents	Birth	1 mos	2 mos	4 mos	6 mos	8 mos	9 mos	12 mos	15 mos	18 mos
Respiratory syncytial virus (RSV-mAb [nirsevimab, clesrovimab])	1 dose during RSV season depending on maternal RSV vaccination status (See Notes)					1 dose nirsevimab during RSV season (See Notes)				
Hepatitis B (HepB)	1 st dose	2 nd dose		3 rd dose						

<https://www.AAP.org/ImmunizationSchedule>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



Hepatitis B Screening and Testing in Pregnancy



- Screen all pregnant people for HBsAg during each pregnancy, preferably during the first trimester.
- After specimen for HBsAg screen is drawn, initiate hepatitis B vaccine series for people not previously vaccinated.
- If HBsAg is positive, then:
 - Check HBV DNA.
 - Repeat HBV DNA for all HBsAg positive people not on anti-viral treatment at 26–28 weeks.



Hepatitis B Screening and Testing in Pregnancy



- If HBV DNA is greater than 200,000 IU/mL start treatment as soon as feasible and continue up to three months postpartum.
- Antiviral therapy (Tenofovir is first-line) can reduce risk of vertical transmission to less than 3%.
- Clinical studies support the safety of antiviral treatment while breastfeeding.

PEP of Infant at Birth



Infants of people who test positive for HBsAg should receive a dose of hepatitis B vaccine and HBIG.

Infants should complete the hepatitis B vaccine series.



PEP of Infant at Birth



Generally, a dose of hepatitis B vaccine and HBIG are sufficient to prevent transmission at birth.

Vaccination at birth and HBIG may fail to prevent transmission in cases where the pregnant person has a high HBV viral load (greater than 200,000 IU/mL).





Vaccine Schedule for Infants Born to HBV-negative Mothers

Maternal HBsAg status	Single-antigen vaccine dose	Single-antigen age indications	Single-antigen + combination vaccine dose	Single-antigen + combination vaccine age indications
Negative	1	Birth (≤ 24 hours)	1	Birth (≤ 24 hours)
	2	1–2 months	2	2 months
	3	6–18 months	3	4 months
	N/A	N/A	4	6 months



Vaccine Schedule for Infants Born to HBV-positive Mothers or unknown status

Maternal HBsAg status	Single-antigen vaccine dose	Single-antigen age indications	Single-antigen + combination vaccine dose	Single-antigen + combination vaccine age indications
Positive	1	Birth (≤ 12 hours)	1	Birth (≤ 12 hours)
	HBIG	Birth (≤ 12 hours)	HBIG	Birth (≤ 12 hours)
	2	1–2 months	2	2 months
	3	6 months	3	4 months
	N/A	N/A	4	6 months
Unknown	1	Birth (≤ 12 hours)	1	Birth (≤ 12 hours)
	2	1–2 months	2	2 months
	3	6 months	3	4 months
	N/A	N/A	4	6 months

Post-Vaccination Serologic Testing



- CDC recommends post-vaccination serologic testing (PVST) for infants born to a person with a confirmed positive HBsAg.
 - This determines if the child has developed immunity or has HBV infection.
- PVST should include HBsAg and anti-HBs (not anti-HBc).



Perinatal Hepatitis B Case Management Adherence to Vaccine Recommendations



Perinatal Hepatitis B Outcome	2020 Birth Cohort	2021 Birth Cohort	2022 Birth Cohort	2023 Birth Cohort
Receipt of hepatitis B vaccine and HBIG (PEP) at birth	95% (105/110)	99% (85/86)	99% (92/93)	94% (85/90)
Hepatitis B vaccine series completion by age 12 months*	87% (96/110)	97% (83/86)	88% (82/93)	90% (81/90)
Post-vaccination serologic testing by age 9-12 months ^a	67% (74/110)	63% (54/86)	76% (71/93)	78% (70/90)
Children who tested positive for hepatitis B virus infection	2	1	0	2



2022 ACIP Recommendations

Adult Hep B Vaccination

The following groups ***should*** receive hepatitis B vaccines:

- Adults through age 59 years.
- Adults aged ≥ 60 years with risk factors for hepatitis B.

The following groups ***may*** receive hepatitis B vaccines:

- Adults aged ≥ 60 years without known risk factors for hepatitis B.



Adult Hepatitis B Vaccination

2 dose series Heplisav-B

or

3 dose series Engerix-B, PreHevbrio, or Recombivax

or

3 dose series HepA-HepB (Twinrix)

or

4-dose series HepA-HepB (Twinrix) ← Accelerated series






Wisconsin Hepatitis Elimination

Kailynn Mitchell, MPH
Adult Viral Hepatitis Supervisor
Wisconsin Department of Health Services



National Hepatitis Elimination Goals

-  Prevent new hepatitis infections and deaths.
-  Increase the number of people who know their status.
-  Ensure every person living with hepatitis has health care and treatment, free from stigma and discrimination.



Hepatitis Needs Assessment

- Distributed electronic surveys to health care systems across the state.
- Responses were collected from Federally Qualified Health Centers (FQHCs), Tribal health clinics, private clinics, and hospitals.
- Meetings are being scheduled with the health systems to review what is going well and what can be improved on.

Wisconsin Hepatitis Elimination Plan



Populations of Focus

- Justice system-involved people
- Pregnant people and perinatally exposed infants
- Tribal Nations
- People who use drugs
- Rural residents



Wisconsin Hepatitis Elimination Plan Measures



Prevent new viral hepatitis infections.

- Reduce number of new HAV (↓65%), HBV (↓90%), and HCV (↓90%) infections.
- Increase hepatitis A vaccine initiation and series completion rates among children and adults.
- Increase hepatitis B vaccine initiation and series completion rates among children and adults.
- Increase percentage of infants who receive hepatitis B birth dose.

Wisconsin Hepatitis Elimination Plan Measures



Prevent perinatal transmission of viral hepatitis.

- Increase receipt of postexposure immunoprophylaxis among babies born to people with HBV.
- Increase completion of hepatitis B vaccine series among children born to people with HBV.
- Increase post-vaccination serologic testing among children perinatally exposed to HBV.
- Increase HCV screening rates among pregnant people enrolled in Medicaid.



Wisconsin Hepatitis Elimination Plan Measures

Reduce viral hepatitis-related morbidity and mortality.

- Hepatitis B-related death rate (Decrease 65%)
- Hepatitis C-related death rate (Decrease 65%)
- Number of HCV- and HBV-positive people who receive liver transplants
- Liver and bile duct cancer rate



Wisconsin Hepatitis Elimination Plan Measures

Reduce viral hepatitis-related disparities and inequities (case rates).

- New hepatitis B and C diagnosis among people who inject drugs (PWID) (Decrease 90%)
- New hepatitis C diagnosis and deaths among Native American people (Decrease 65%)
- New hepatitis B diagnosis and deaths among Asian and Pacific Islander people (Decrease 65%)
- Hepatitis C-related deaths among non-Hispanic Black people (Decrease 65%)



Wisconsin Hepatitis Elimination Plan Measures

Increase access to viral hepatitis testing and treatment.

- People screened for HCV at Department of Corrections (DOC) (Greater than 90%)
- Percentage of HCV treatment prescriptions filled at DOC and among people enrolled in Medicaid (TBD)
- People with HBV engaged in care (Greater than 80%)
- People who have hepatitis C viral clearance, in rural areas, among PWID, people enrolled in Medicaid, at DOC (Greater than 80%)

Action Steps

- ✓ Universal screening of HBV and HCV for all adults over age 18 and every pregnant person during each pregnancy.
- ✓ Providing HAV and HBV vaccines to adults over age 18.
- ✓ Appropriate screening of HCV for perinatally exposed infants.
- ✓ EMR and patient recall reminders.
- ✓ Hepatitis training for providers.
- ✓ Reporting to public health entities.





2024 Viral Hepatitis Data Reports

- Hepatitis A Data Report ([Published](#))
- Hepatitis B & Hepatitis C Data Report (*In Progress*)
- Syndemics Data Report for the Wisconsin Department of Corrections (*In Progress*)
 - HBV, HCV, HIV, and STIs (Chlamydia, Gonorrhea, and Syphilis)
- Hepatitis C among Native American People ([Published](#))



Email questions, suggestions, and comments about hepatitis elimination planning in Wisconsin and what you would like to see in the statewide plan.

DHSHepatitisEliminationPlan@dhs.wisconsin.gov



DHS Viral Hepatitis Websites

- [Hepatitis A Virus Infection | Wisconsin Department of Health Services](#)
- [Immunizations: Hepatitis B Virus | Wisconsin Department of Health Services](#)
- [Wisconsin Hepatitis C Program | Wisconsin Department of Health Services](#)



Other Resources

- [Hepatitis B Online \(uw.edu\)](https://uw.edu)
- [Immunizations: Recommended Vaccination Schedules for Wisconsinites | Wisconsin Department of Health Services](#)
- [Clinical Testing and Diagnosis for Hepatitis B | Hepatitis B | CDC](#)
- [Hepatitis C Online \(uw.edu\)](https://uw.edu)
- [Clinical Screening and Diagnosis for Hepatitis C | Hepatitis C | CDC](#)
- [Recommendations for Testing, Managing, and Treating Hepatitis C | HCV Guidance \(hcvguidelines.org\)](#)
- [Online Viral Hepatitis Serology Training | CDC](#)
- [Archived Webinars – Midwest AIDS Training + Education Center-Wisconsin – UW–Madison](#)
- [UW Addiction Consultation Provider Hotline Phone Numbers \(wisc.edu\)](https://wisc.edu)
- [Hepatitis C Management | National Clinician Consultation Center \(ucsf.edu\)](https://ucsf.edu)



QUESTIONS?