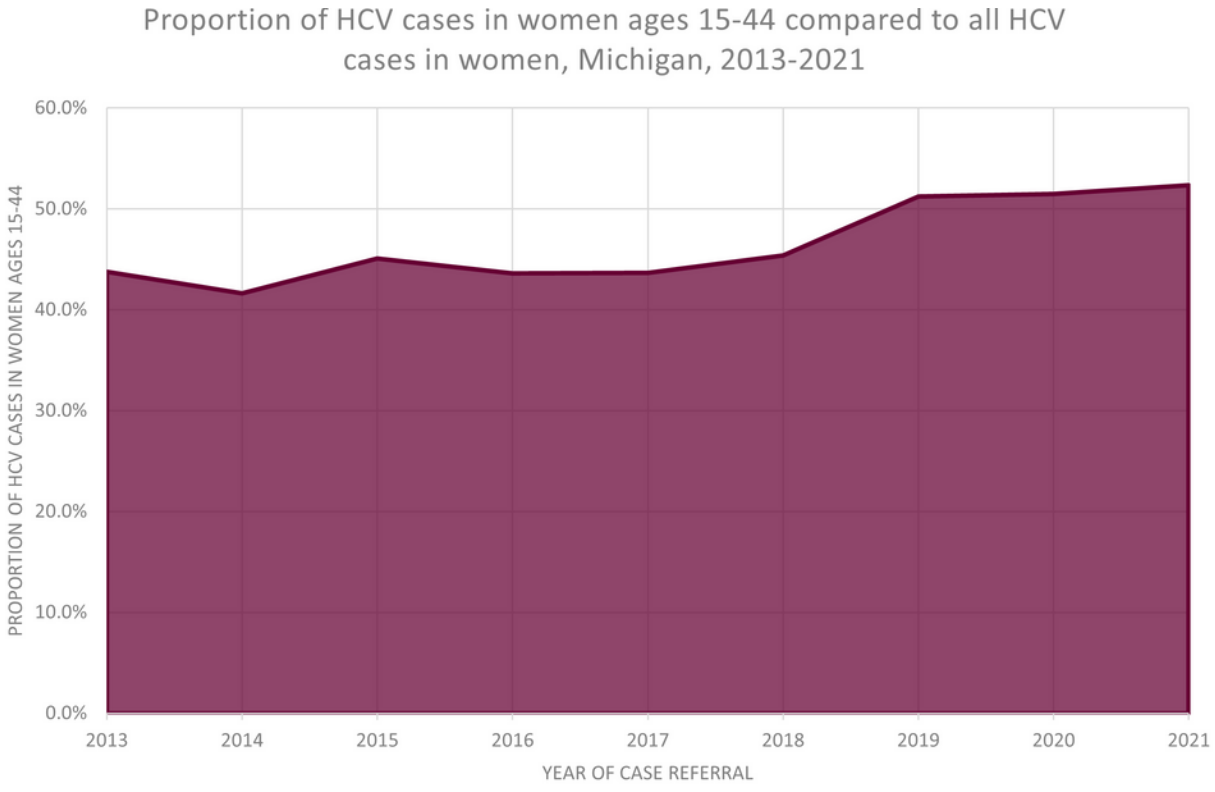
Perinatal Hepatitis C

Background

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV) and is transmitted through contact with blood from an infected person. Common modes of transmission include sharing of equipment used to prepare or inject drugs, traumatic sexual practices, blood transfusions or organ transplants before 1992, occupational exposures, and through vertical transmission from a pregnant person identified with HCV infection to their baby in utero or during childbirth (perinatal hepatitis C). Perinatal hepatitis C is estimated to occur in 5% to 15% of babies born to HCV-infected persons. There are no known methods to prevent HCV transmission— there is no HCV vaccine or prophylaxis, and the method of delivery, such as Cesarean Section, has not been shown to decrease transmission.

Perinatal Hepatitis C Data

The number of women ages 15-44 infected with HCV continues to rise because of the increasing trends in injection drug use. In fact, in 2019, the rate of HCV in women ages 15-44 has surpassed that of the rest of Michigan's HCV cases in women. Perinatal HCV, therefore, is becoming an increasingly important public health issue.



The MDSS is limited by binary sex data fields and 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.

From 2009-2014 the US has experienced an 89% increase in present HCV infections in persons at the time of birth, increasing from 1.8 to 3.4 instances per 1,000 births. Michigan was estimated to have a rate of 2.6-5.0 HCV infections among pregnant individuals for every 1,000 live births in 2014. Using that estimate, the number of incident perinatal HCV cases in Michigan in 2014 ranged between 15 and 85 cases per year. **Although HCV screening is recommended during every pregnancy, these approximations are very likely to be underestimated due to undiagnosed HCV infections in pregnant individuals.** The new case definition for perinatal hepatitis C, established in 2018, states that a perinatal hepatitis C case is between the ages of 2 months and 36 months old and must have a record of a positive HCV nucleic acid test (qualitative, quantitative, or genotype). Under this case definition, there were 55 instances of reported perinatal hepatitis C between 2012 and 2020, which is more than twice the number of perinatal HIV and HBV infections combined. **The 55 perinatal HCV cases are likely an underestimation because approximately 50-75% of the HCV-infected population is undiagnosed, and infants are often not tested or tested inaccurately.**

Testing

Due to the underdiagnoses and underestimations of HCV in pregnant individuals and in infants, appropriate testing is critical to ensure timely identification and linkage to care and treatment. The Michigan Department of Health and Human Services Testing Recommendations for Hepatitis C Infants and in Pregnancy fact sheet outlines the appropriate testing algorithm to follow.

Pregnancy

- All pregnant people should be tested for HCV during each pregnancy, regardless of age.
- The American College of Obstetricians-Gynecologists and the American Association for the Study of Liver Diseases recommend testing ideally at the initial visit.

In addition, all adults ages 18 years and older, should receive HCV testing at least once in a lifetime. Ideally, HCV infection would be diagnosed before pregnancy, and, when possible, pre-pregnancy testing for HCV is recommended in individuals who have not yet been tested, in accordance with the recommendation for testing at least once in a lifetime for all adults. Patients testing positive for HCV before pregnancy should be connected to care so they can complete direct-acting antiviral treatment before becoming pregnant. People with ongoing risk factors who were tested for HCV early in pregnancy can undergo repeat testing later in pregnancy to identify those who may have acquired hepatitis C infection later in pregnancy.

Infants Perinatally Exposed to HCV 

All children born to HCV-infected persons should be tested for hepatitis C:

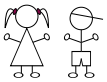
- HCV Ab testing at or after **18 months of age.**
  - Maternal HCV antibodies transfer efficiently from parent to child and may not clear for up to 18 months.
- HCV RNA can be considered as early as **2 months of age.**
- Children anti-HCV positive after 18 months of age should be tested with an HCV RNA after 3 years of age to confirm chronic HCV infection.

Treatment 

Hepatitis C direct-acting antivirals are all oral medications taken once daily, for as little as eight to 12 weeks, and are over 95% effective at curing individuals of their HCV infection.

Pregnancy 

Currently, it is not recommended to treat pregnant individuals for HCV infection. However, HCV treatment can begin in the postpartum period after delivery. If breastfeeding, treatment should be postponed during that time until after completion of breastfeeding. HCV-positive persons can breastfeed their baby after birth; however, if nipples are cracked or bleeding, nursing should stop temporarily until nipples have healed.

Children 

HCV direct-acting antivirals are now approved to treat children as young as 3 years old. After the baby is born, systems should be in place to inform the pediatrician responsible for the care of the newborn's perinatal exposure to HCV to ensure appropriate monitoring, follow-up, and linkage to care when the child reaches 3 years of age.

Perinatal HCV Resources 

- MDHHS Perinatal Hepatitis Website: https://bit.ly/3dHFNPm
- Testing Recommendations for Hepatitis C Infants and in Pregnancy: https://bit.ly/3CdYsfm
- MDHHS Perinatal HIV, HBV, HCV, and Syphilis Testing and Reporting Guidelines: https://bit.ly/3Se4QZm
- MDHHS Perinatal Infection Screening Flow Chart: https://bit.ly/3RhjIEW
- Lab Resource Guide for HIV, Syphilis, HBV, and HCV Infection During Pregnancy: https://bit.ly/3LNK4O4

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.

MDHHS-Pub-1612 (10-22)