

2020 North Carolina Hepatitis B/C Surveillance Report

**HIV/STD/Hepatitis Surveillance Unit
Division of Public Health
North Carolina Department of Health and Human Services
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Please direct any comments or questions to:

HIV/STD/Hepatitis Surveillance Unit
North Carolina Communicable Disease Branch
1902 Mail Service Center
Raleigh, North Carolina 27699-1902
919-733-7301

<https://epi.publichealth.nc.gov/cd/stds/figures.html>

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**North Carolina
Department of Health and Human Services
Division of Public Health
Epidemiology Section**

Communicable Disease Branch

Nicole Adams, MSc, HIV/Hepatitis Surveillance Epidemiologist
Christie Caputo, MPH, Viral Hepatitis Program Manager
Brian Gravlin, RN, Hepatitis Surveillance Nurse
Richard Moore II, MD, AAHIVS, Hepatitis Medical Director
Erika Samoff, PhD, MPH, HIV/STD/Hepatitis Surveillance Manager
Jacquelyn Clymore, MS, State HIV/STD/Hepatitis Director
Evelyn Foust, MPH, CPM, Branch Head

State of North Carolina
Department of Health and Human Services
Division of Public Health
Epidemiology Section • Communicable Disease Branch

<https://www.ncdhhs.gov/> • <https://www.ncdhhs.gov/divisions/dph>

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Summary

Note for 2020 North Carolina Hepatitis B/C Surveillance Report

The 2020 data should be treated with caution due to reduced availability of testing and, in some settings, hepatitis care caused by the COVID-19 pandemic. For this reason, the 2020 data will be italicized on all of our surveillance tables throughout this report.

Hepatitis B

- The number of people diagnosed with acute hepatitis B in North Carolina in 2020 was 131, a rate of 1.2 per 100,000 population. This is higher than the national average rate of acute hepatitis B, at 1.0 per 100,000 (based on 2019 CDC hepatitis surveillance report <https://www.cdc.gov/hepatitis/statistics/2019surveillance/HepB.htm>).
- The highest rates of acute hepatitis B occurred among the 30- to 54-year-old age group. This age group comprised 84% of the total reported acute hepatitis B cases.
- In 2020, White/Caucasian men and women had the highest acute hepatitis B rates (2.0 and 1.1 per 100,000, respectively) and comprised 79% of the total reported acute hepatitis B cases.
- In 2020, the exposure most frequently reported by people with acute hepatitis B was heterosexual contact (42%), followed by injection drug use (IDU) (31%). Exposure is based on self-reported data. People may report more than one risk, and the source of exposure is difficult to determine for many cases. These data likely reflect under reporting of higher risk exposures, such as IDU.
- The number of people diagnosed with chronic hepatitis B in North Carolina in 2020 was 768 (7.2 per 100,000). The majority of cases were among men (rate of 9.2 per 100,000), the 40-44 age group (rate of 14.4 per 100,000), and Asians/Pacific Islanders (rate of 38.8 per 100,000). Risk was not reported for over 60% of cases.
- As of December 31, 2020, 26,299 people had been diagnosed with chronic hepatitis B and were currently living in North Carolina.

Hepatitis C

- The number of people diagnosed with acute hepatitis C in North Carolina in 2020 was 100, a rate of 0.9 per 100,000 population. The national average rate of acute hepatitis C was 1.3 per 100,000 (based on 2019 CDC hepatitis surveillance report <https://www.cdc.gov/hepatitis/statistics/2019surveillance/HepC.htm>).
- The highest rates of acute hepatitis C occurred among the 25- to 39-year-old age group. This age group comprised 70% of the total reported acute hepatitis C cases.
- In 2020, American Indian/Alaska Native men had the highest acute hepatitis C rates (1.6 per 100,000), but only made up 2% of the reported acute hepatitis C cases. The majority of cases (89%) were White/Caucasian men and women, with rates of 1.5 and 1.2 per 100,000, respectively.
- In 2020, the most frequently reported risk factor by people with acute hepatitis C was IDU (54%), followed by sexual contact (12%). Exposure is based on self-reported data. People may report more than one risk, and the source of exposure is difficult to determine for many cases. These data likely reflect under-reporting of higher risk exposures, such as IDU.

- As of December 31, 2020, there were 72,552 people reported with chronic hepatitis C currently living in North Carolina (data collection started in 2016).
- In 2020, 12,313 chronic hepatitis C cases were reported to the state. The majority of cases were among men (61%). The age groups 25-34 (24%) and 50-65 and older (37%) had the highest proportion of people with chronic hepatitis C. For the majority of cases, race/ethnicity is unknown (63%). Risk information is not collected for chronic hepatitis C cases at this time.

HEPATITIS B AND C IN NORTH CAROLINA

Hepatitis B and C Reporting in North Carolina

In North Carolina, laboratory results and symptoms diagnostic of acute, chronic, and perinatal hepatitis B and acute hepatitis C are reportable by law to the North Carolina Department of Health and Human Services (North Carolina DHHS). Statewide surveillance information is collected by the local health departments and sent to the North Carolina Division of Public Health. The acute classification for hepatitis B and C is based solely on provider reporting. Most of North Carolina's disease reporting, including chronic hepatitis B and C, is performed via electronic reporting from laboratories. Therefore, acute hepatitis B and C are very likely to be underreported; an additional contributor to underreporting is misclassification of asymptomatic acute cases as chronic.

Hepatitis B and C in North Carolina are required to be reported to the local health department following the schedule below:

Within 24 hours	Within seven days
Acute Hepatitis B	Chronic Hepatitis B
Perinatal Hepatitis B	Acute Hepatitis C

*Note reporting of chronic hepatitis C is not required for providers in North Carolina; it is primarily reported in North Carolina by electronic lab reporting (ELR). Therefore, chronic hepatitis C does not have a provider timeframe for reporting to North Carolina Division of Public Health

Hepatitis B

Hepatitis B is a vaccine-preventable, mild-to-severe liver infection, caused by the hepatitis B virus (HBV), which can advance from acute to chronic. The Centers for Disease Control and Prevention (CDC) estimates that there are 862,000 people living with HBV, with about 22,600 new infections a year in the United States.¹ Nationally, the rate of acute HBV has remained stable over the past 10 years, with a slight increase in 2017.² HBV is a leading cause of liver cancer.

Acute versus Chronic Hepatitis B

Acute infection ranges from asymptomatic or mild disease to — rarely — fulminant hepatitis. Some acute HBV infections will resolve on their own, while others will develop into chronic infection. Most people with chronic HBV infection have no outward symptoms of liver disease. However, some people may develop liver inflammation (elevation of aspartate aminotransferase [AST]/alanine aminotransferase [ALT]), cirrhosis, or hepatocellular carcinoma (a type of liver cancer).² Between 15% to 25% of people with chronic HBV will develop chronic liver disease, including cirrhosis, liver failure, or

¹Centers for Disease Control and Prevention (CDC) (2020). *What is Viral Hepatitis?* Updated July 28, 2020. Accessed November 6, 2020. Retrieved from <https://www.cdc.gov/hepatitis/abc/index.htm>.

²Centers for Disease Control and Prevention (CDC) (2020). *Hepatitis B Questions and Answers for Health Professionals*. Updated July 28, 2020. Accessed November 7, 2020. Retrieved from <https://www.cdc.gov/hepatitis/hbv/hbvfaq.htm#overview>.

liver cancer.¹ Around 25% of people infected with chronic HBV in childhood and 15% of people infected with chronic HBV after childhood die prematurely from cirrhosis or liver cancer.²

Transmission of Hepatitis B

HBV can survive outside the body for at least seven days and still cause infection.² HBV can be transmitted through sex with an infected person, sharing drug use equipment, sharing personal items (such as toothbrushes and razors), and breaches in infection control resulting in outbreaks in health care facilities. Vertical transmission can also occur between an infected mother and her infant (perinatal HBV).¹ The majority of infections due to perinatal transmission diagnosed in North Carolina are found in people born in countries with moderate to high rates of endemicity (primarily Asian and African countries) who are now North Carolina residents.

People at risk for HBV include:

- Infants born to HBV-infected mothers;
- Sexual partners of HBV-infected people;
- Men who report sex with men;
- People who inject drugs;
- Household contacts of HBV-infected people;
- Health care and public safety workers at risk for occupational exposure; and
- Hemodialysis patients.²

Symptoms of Hepatitis B

Newly acquired HBV infections only cause symptoms in certain cases, and symptoms vary by age. Most children under the age of five are asymptomatic, while 30-50% of people older than five years of age have symptoms. People who are immunocompromised are also generally asymptomatic.² Symptoms for acute HBV include fever, fatigue, nausea, vomiting, abdominal pain, jaundice, and dark urine. If symptoms do occur, they begin on average 90 days after HBV exposure. Symptoms can typically last for several weeks but can persist up to six months.¹ Since acute infections can be asymptomatic and diagnostic criteria for chronic infections are relatively non-specific, a portion of the reported chronic cases may in fact be acute.³

Screening for Hepatitis B

Screening for HBV should be done for individuals born in countries where HBV prevalence is $\geq 2\%$, men who have sex with men, people who are HIV positive, household/sexual and needle sharing partners of HBV positive people, people who require immunosuppressive therapies, people undergoing hemodialysis, blood and tissue donors, pregnant women, infants born to HBV-infected mothers, chronic

¹Centers for Disease Control and Prevention (CDC) (2020). *What is Viral Hepatitis?* Updated July 28, 2020. Accessed November 6, 2020. Retrieved from <https://www.cdc.gov/hepatitis/abc/index.htm>.

²Centers for Disease Control and Prevention (CDC) (2020). *Hepatitis B Questions and Answers for Health Professionals*. Updated July 28, 2020. Accessed November 6, 2020. Retrieved from <https://www.cdc.gov/hepatitis/hbv/hbvfaq.htm#overview>.

³Centers for Disease Control and Prevention. (2012). Chapter 9: Hepatitis B - epidemiology and prevention of vaccine-preventable diseases. In W. Atkinson, S. Wolfe, & J. Hamborsky (Eds.). *The Pink Book: Course Textbook*, 12th edition, 2nd print (pp. 115-138). Washington DC: Public Health Foundation. Retrieved from <http://www.cdc.gov/vaccines/pubs/pinkbook/hepb.html>.

liver disease, end-stage renal disease, and people with elevated alanine aminotransferase levels.² All 85 local health departments in North Carolina are able to offer risk-based HBV screening to under and uninsured individuals through the North Carolina State Laboratory of Public Health (NC SLPH).

Treatment for Hepatitis B

Treatment is generally not required for acute HBV, as the majority of acute disease will self-clear 90-95% of the time. The decision to treat chronic HBV is based on serologic measurements and degree of liver inflammation. Several antiviral medications are available to treat HBV and are aimed at suppressing and decreasing the pathogenicity of the virus.¹ There is no cure for HBV at this time.

Vaccination for Hepatitis B

The first HBV vaccine became commercially available in the United States in 1982. There are three single-antigen and three combination vaccines available for HBV in the United States. The vaccination schedule most often used for children and adults is three intramuscular injections, the second and third doses administered at one and six months, respectively, after the first dose at birth.¹ It is recommended that all children from birth to 18 years of age receive the vaccine, and all other adults receive it as soon as possible.

The Advisory Committee on Immunization Practices (ACIP) recommends vaccinations to the following people:

- All infants;
- Unvaccinated children under the age of 19;
- People at risk for infection by sexual exposure;
- People who inject drugs;
- Household contacts of HBV-infected people;
- Health care and public safety workers at risk for occupational exposure;
- Hemodialysis patients;
- People with diabetes;
- International travelers to countries with high or intermediate levels of endemic HBV;
- People who are infected with hepatitis C;
- People with HIV;
- People with chronic liver disease;
- People who are incarcerated; and
- People seeking protection from HBV.²

¹Centers for Disease Control and Prevention (CDC) (2020). *What is Viral Hepatitis?* Updated July 28, 2020. Accessed November 6, 2020. Retrieved from <https://www.cdc.gov/hepatitis/abc/index.htm>.

²Centers for Disease Control and Prevention (CDC) (2020). *Hepatitis B Questions and Answers for Health Professionals*. Updated July 28, 2020. Accessed November 6, 2020. Retrieved from <https://www.cdc.gov/hepatitis/hbv/hbvfaq.htm#overview>.

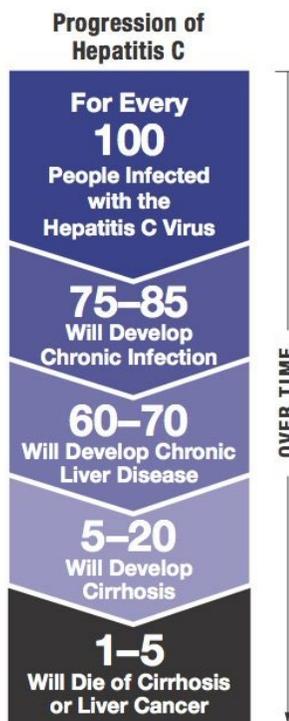
Hepatitis C

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV), which can advance from acute to chronic. The CDC estimates that over 2.4 million people are living with HCV, and that there are around 50,000 new infections annually in the United States. HCV is a common reason for liver transplants in the United States.¹ In North Carolina, we estimate that at least 200,000 people are infected with chronic HCV.

Acute versus Chronic Hepatitis C

HCV can be classified as acute (mild illness lasting a few weeks and up to six months) or chronic (greater than six months). Approximately 75-85% of those infected with HCV develop a chronic infection.⁴ From 5-20% of people who develop chronic HCV develop cirrhosis, and 1-5% will die from either cirrhosis or liver cancer (Figure 1).^{4,5}

Figure 1. Progression of Hepatitis C⁵



¹Centers for Disease Control and Prevention (CDC) (2020). *What is Viral Hepatitis?* Updated July 28, 2020. Accessed November 7, 2020. Retrieved from <https://www.cdc.gov/hepatitis/abc/index.htm>.

⁴Centers for Disease Control and Prevention (CDC) (2020). *Hepatitis C Questions and Answers for Health Professionals*. Updated August 7, 2020. Accessed November 7, 2020. Retrieved from <https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm#section2>.

⁵Image from Hepatitis Foundation International. Accessed on June 18, 2019. <https://hepatitisfoundation.org/HEPATITIS/Hepatitis-C.html>.

Transmission of Hepatitis C

HCV transmission occurs primarily through infected blood. The most common way HCV is transmitted in the United States is through injection drug use. HCV can also be transmitted through the receipt of blood (including blood products and organs), needlestick injuries in health care settings, and through vertical transmission (HCV-infected mother-to-child). While infrequent, HCV can also be spread through sexual contact with an HCV-infected person, sharing personal items contaminated with infectious blood (such as toothbrushes and razors), unregulated tattooing, and other health care procedures that involve invasive procedures.⁴

People at increased risk for HCV include:

- People who inject drugs;
- Recipients of clotting factor concentrates made before 1987;
- Recipients of blood transfusions or solid organ transplants prior to July 1992;
- Children born to HCV-infected mothers;
- People with HIV;
- Health care workers with known exposure to HCV;
- Recipients of blood or organs from a donor who tested positive for HCV; and
- Hemodialysis patients.⁴

Symptoms of Hepatitis C

The majority of people who newly acquire HCV are usually asymptomatic or have mild symptoms. When symptoms do occur, they include fever, fatigue, nausea, vomiting, abdominal pain, joint pain, jaundice, dark urine, and clay-colored stool. If symptoms do occur, they begin on average two to 12 weeks after HCV exposure.⁴ The acute form of the infection is a short-term illness that occurs within the first six months after someone is exposed to the virus. Most people infected with chronic HCV are asymptomatic or have non-specific symptoms (like fatigue and depression).⁴ Progression of chronic liver disease is generally gradual, though can progress more quickly in certain subgroups (i.e. HIV coinfection). Most HCV infection is not recognized in asymptomatic people until they are screened for either blood donations, if routine screening is performed, or if elevated liver enzyme levels are detected during routine examinations.⁴

Screening for Hepatitis C

The CDC updated screening guidance for HCV in Spring 2020. They recommend a one-time HCV testing in all adults (18 years and older), except in settings where the prevalence of HCV is less than 0.1%, and in all pregnant women during every pregnancy.⁵ The following guidance was also updated for screening for HCV⁵:

¹Centers for Disease Control and Prevention (CDC) (2020). *What is Viral Hepatitis?* Updated July 28, 2020. Accessed Nov 6, 2020. Retrieved from <https://www.cdc.gov/hepatitis/abc/index.htm>.

⁴Centers for Disease Control and Prevention (CDC) (2020). *Hepatitis C Questions and Answers for Health Professionals*. Updated Aug 7, 2020. Accessed Nov 6, 2020. Retrieved from <https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm#section1>.

⁵Schillie S, Wester C, Osborne M, Wesolowski L, Ryerson AB (2020). *CDC Recommendations for Hepatitis C Screening Among Adults-United States, 2020*. MMWR Recomm Rep 3030;69(NO. RR-2): 1-17. Retrieved from: <https://www.cdc.gov/mmwr/volumes/69/rr/rr6902a1.htm>.

- **One-time hepatitis C testing regardless of age or setting prevalence among people with recognized conditions or exposures:**
 - People with HIV;
 - People who ever injected drugs and shared needles, syringes, or other drug preparation equipment, including those who injected once or a few times many years ago;
 - People with selected medical conditions, including:
 - people who ever received maintenance hemodialysis; and
 - people with persistently abnormal ALT levels.
 - Prior recipients of transfusions or organ transplants, including:
 - people who received clotting factor concentrates produced before 1987;
 - people who received a transfusion of blood or blood components before July 1992;
 - people who received an organ transplant before July 1992; and
 - people who were notified that they received blood from a donor who later tested positive for HCV infection.
 - Health care, emergency medical, and public safety personnel after needle sticks, sharps, or mucosal exposures to HCV-positive blood; and
 - Children born to mothers with HCV infection.
- **Routine periodic testing for people with ongoing risk factors, while risk factors persist:**
 - People who currently inject drugs and share needles, syringes, or other drug preparation equipment; and
 - People with selected medical conditions, including:
 - people who ever received maintenance hemodialysis.
- **Any person who requests hepatitis C testing** should receive it, regardless of disclosure of risk, because many people may be reluctant to disclose stigmatizing risks

Like with HBV, all 85 local health departments are able to offer risk-based HCV screening to under and uninsured individuals through the NC SLPH. In 2020, a total of 18,166 anti-HCV tests (13% positivity) and 2,422 RNA tests (58% positivity) were conducted at the NC SLPH.

Treatment for Hepatitis C

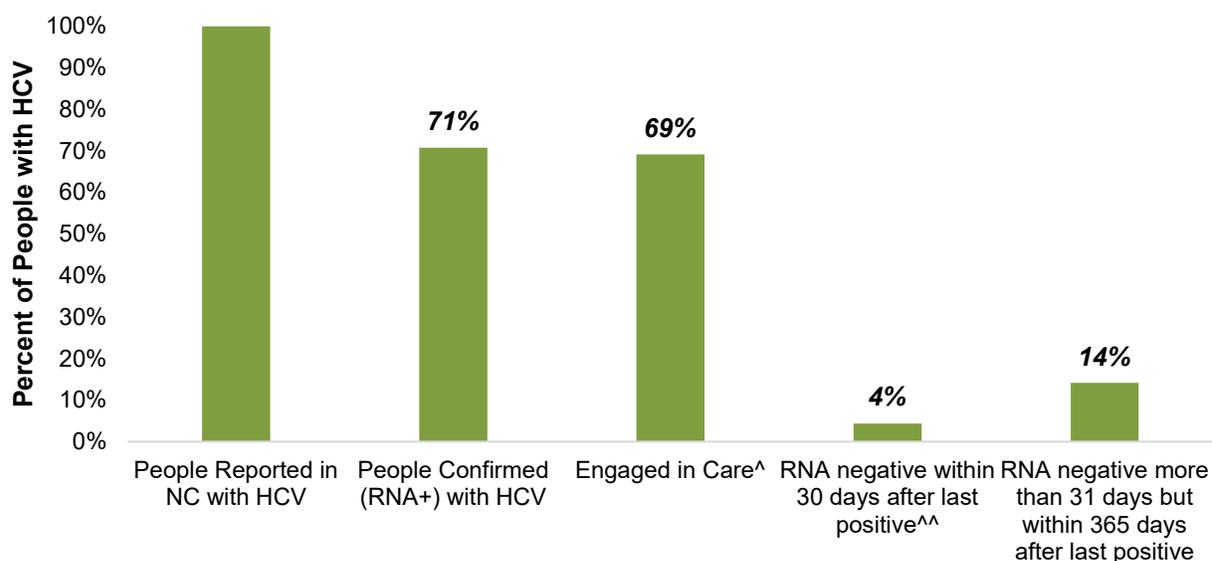
Treatment was not recommended for acute HCV until 2020. In 2013, direct acting antiviral therapies to treat chronic HCV became available that are associated with high cure rates (>95%), low likelihood of side effects, and lower risk of drug-drug interactions. Over 90% of HCV-infected people can be cured of HCV with eight to 12 weeks of oral therapy.⁴

Figure 2 represents the North Carolina surveillance-based treatment cascade for cases from 2016 through 2020. Our treatment cascade includes any individual reported with acute or chronic HCV over the age of 3 in 2020 and living at the end of 2020. It is based on surveillance labs only, and negative lab reporting is not required by law in North Carolina. However, the state database does receive negative HCV viral tests when an HCV record matches to an individual in our surveillance system. Our

⁴Centers for Disease Control and Prevention (CDC) (2020). *Hepatitis C Questions and Answers for Health Professionals*. Updated Aug 7, 2020. Accessed Nov 6, 2020. Retrieved from <https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm#section1>.

surveillance-based HCV treatment cascade includes the proportion of HCV cases confirmed (RNA-positive), the proportion engaged in care, the proportion with a negative RNA HCV within 30 days of the last RNA-positive lab (potential indicator of natural clearance), and the proportion with a negative RNA more than 31 days but within 365 days of the last positive (Figure 2). We use the last parameter as a proxy for SVR, as our data on SVR are incomplete. Since negative tests may not match to existing surveillance records, and people in treatment may not get a final RNA test, this is a minimum estimate of treatment and cure.

Figure 2. North Carolina Surveillance-Based Hepatitis C Treatment Cascade, 2016-2020*



[^]Engaged in care is defined as having an additional RNA after their initial date of report to public health.

^{^^}RNA-negative less than 30 days of positive is a potential indicator of natural clearance, and therefore is its own parameter.

Negative RNA results are reported into the surveillance system only if an HCV record matches to a subsequent negative test.

*Note: 2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

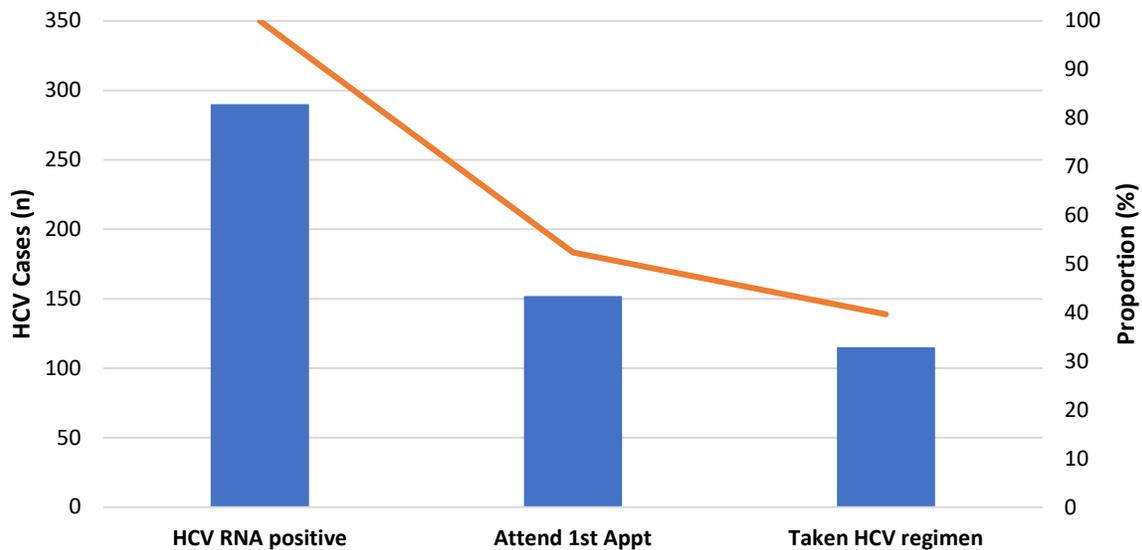
Case definition for hepatitis C changed in 2016 and then again in 2020.

Includes people reported with acute hepatitis C starting in 2020.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

The North Carolina Viral Hepatitis Program (NCVHP) maintains a statewide bridge counselor program that aims to establish and promote linkage to care activities for HCV positive patients. In 2020, there were five HCV bridge counselors in North Carolina; two located in the western part of the state, two centrally located, and one in the southeastern part of the state. Only two HCV bridge counselors are state funded. The HCV bridge counselors offer support and guidance to those who may otherwise have difficulty accessing both medical treatment and social services. Figure 3 shows the bridge counselor-based HCV treatment cascade for clients for Region 1 (Cherokee, Clay, Graham, Haywood, Jackson, Macon, Swain, and Transylvania counties). Just over 30% had taken an HCV regimen in Region 1 during this timeframe (Figure 3).

Figure 3. North Carolina State Bridge Counselor-Based Hepatitis C Treatment Cascade, 2017-2020

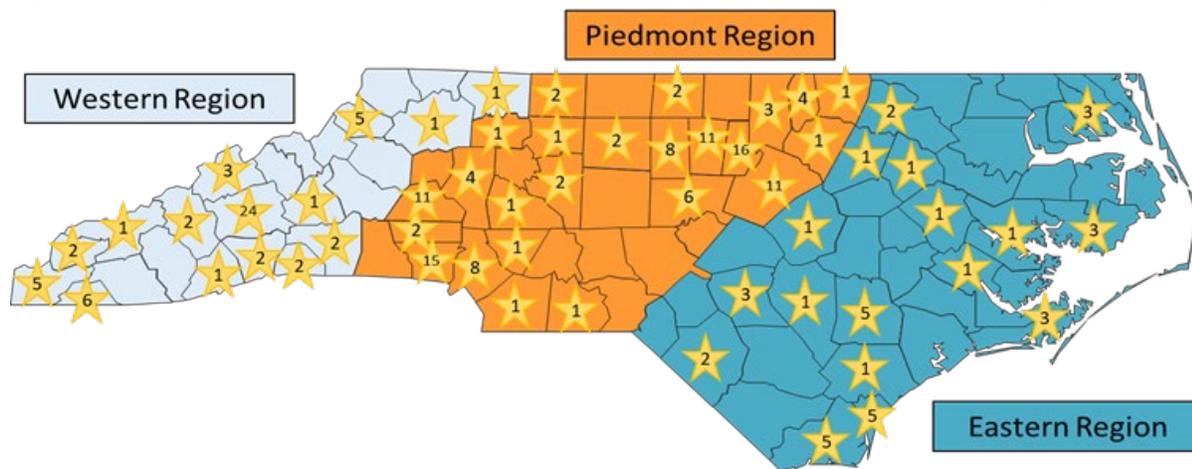


Data Source: Region 1 Bridge Counselor data, as of October 25, 2021.

NCVHP, in collaboration with Duke University and the University of North Carolina-Chapel Hill, has developed a partnership to address limited resources for HCV treatment. Carolina Hepatitis C Academic Mentorship Program (CHAMP) is a telemedicine program designed to increase access to HCV treatment in North Carolina. CHAMP offers health care providers the opportunity to participate in a one-day boot camp, an intensive course on evaluation and treatment of patients with HCV. In addition to the boot camp, providers have biweekly conference calls with CHAMP mentors, which includes time for discussion of cases and continued education on effective treatment options. The CHAMP program also provides education and guidance around program development and linkage to resources for uninsured and underinsured patients. For more information about CHAMP, visit:

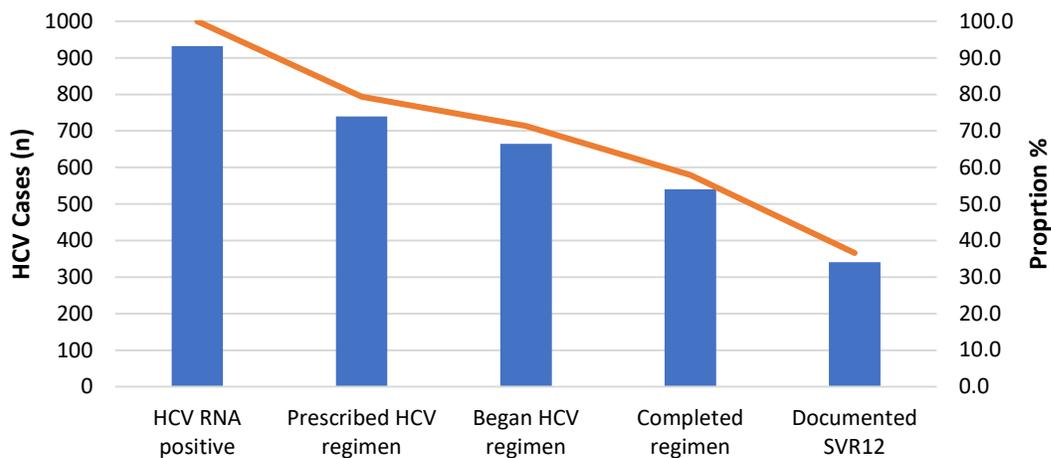
https://epi.dph.ncdhhs.gov/cd/hepatitis/CHAMP-Brochure_FINAL-WEB.pdf.

Figure 4. Number of CHAMP Providers since 2017 in North Carolina by County and Region



Along with the bridge counselor HCV treatment cascade, the NCVHP produces a CHAMP provider-based treatment cascade. Figure 5 shows all people seen by CHAMP providers from March 2017 (when the program started) until December 2020. During this time, 16,197 people were reported as screened for HCV by a CHAMP provider, with 932 people being HCV RNA positive. Of the 932 people confirmed with HCV, over 36% of them attained SVR12 (Figure 5).

Figure 5. North Carolina CHAMP Provider-Based Hepatitis C Treatment Cascade, 2017-2020



Data Source: North Carolina CHAMP Provider data (as of October 15, 2021).

Prevention of Hepatitis C

There is no vaccine for HCV, but people infected with HCV should be vaccinated against hepatitis B and hepatitis A.

NCVHP manages several prevention projects, including a perinatal HCV pilot and a testing and outreach partnership with the North Carolina Harm Reduction Coalition (NCHRC). The NCHRC program provides harm reduction materials to syringe access programs and community-based organizations to prevent the transmission of hepatitis, HIV, and other STDs. For more information about NCHRC, visit: <http://www.nchrc.org/>.

The Injury and Violence Prevention Branch oversees the North Carolina Safer Syringe Initiative. The initiative provides information about existing syringe access programs in the state, resources for health care providers and law enforcement agencies, testing and treatment programs, information about the syringe exchange law, and information for health departments, community-based organizations, and other agencies interested in starting their own access program. For more information, visit: <https://www.ncdhhs.gov/divisions/public-health/north-carolina-safer-syringe-initiative>.

NCVHP has also created a regional drug user health resource guide. This guide contains regional specific information on low cost/free clinics, housing, food pantry and community means, hepatitis treatment providers, and syringe access programs. It also includes information on gastroenterologists, medication assisted treatment, behavioral health, and narcotics anonymous chapters. This resource guide is available online: https://testyourwell.nc.gov/cd/hepatitis/DrugUserHealthResourceGuide_08102021.pdf.

Perinatal Hepatitis C

Rates of HCV nearly doubled during 2009-2014 among people with live births. From 2011 - 2014, the CDC estimates that 29,000 HCV-infected people gave birth each year. HCV can be transmitted from an infected birthing parent to the child during both pregnancy and childbirth. The CDC estimates that vertical transmission occurs in about 5.8% of all pregnancies.⁶ Perinatal HCV infection is confirmed if an infant between 2 and 36 months of age has a positive HCV RNA, HCV genotype, or HCV antigen.⁷ Perinatal HCV is not a reportable condition in all reporting jurisdictions, but the CDC reported 217 infants with HCV in 2019.⁸

⁶Centers for Disease Control and Prevention (2021). Test for Hepatitis C during every pregnancy. Updated May 27, 2021. Accessed October 11, 2021. Retrieved from <https://www.cdc.gov/knowmorehepatitis/hcp/Test-For-HepC-During-Pregnancy.htm>.

⁷Centers for Disease Control and Prevention (2021). Hepatitis C, perinatal infection 2018 case definition. Updated April 16, 2021. Accessed October 11, 2021. Retrieved from <https://ndc.services.cdc.gov/case-definitions/hepatitis-c-perinatal-infection-2018/>.

⁸Centers for Disease Control and Prevention (2021). 2019 Hepatitis Surveillance Report: Table 3.4. Number of newly reported cases of perinatal hepatitis C virus infection, by state or jurisdiction-United States, 2019. Updated May 14, 2021. Accessed October 11, 2021. Retrieved from <https://www.cdc.gov/hepatitis/statistics/2019surveillance/Table3.4.htm>.

Perinatal hepatitis C is not a reportable condition in North Carolina. However, data is collected on confirmed perinatal hepatitis C cases. North Carolina does calculate a perinatal HCV exposure analysis annually. Below are the results of this analysis, using our surveillance case data from 2016-2019 and matching it to birth records from the State Center for Health Statistics from 2016-2019. Please note that birth records for 2020 will not be made available until late 2021.

- 32,648 women diagnosed and reported with HCV in NC EDSS
 - 17,116 total women of childbearing age (14-44 years of age)
 - 753 were indicated as pregnant at the time of report to PH
- 485,628 live births in NC from Jan 2016 to Dec 2019 (from birth records)
 - 2,261 births had maternal HCV infection documented on birth certificate
- 1,463/2,261 women in NC EDSS with HCV matched to birth records (65% of the cases identified on birth certificates)
 - 1,063 had confirmed HCV status (RNA-positive)
 - Using 5-7% vertical transmission rate, we expect to see 53 to 74 perinatal HCV cases in NC
- 64 cases of perinatal HCV cases in NC EDSS during this timeframe, which is within the expected range

In July 2021, the NCVHP started a perinatal HCV referral process available to all LHDs and providers across the state. The NC SLPH has authorized free HCV testing for all pregnant persons, aged 18 years and older. Screening during pregnancy is recommended per CDC, unless the prevalence is <0.1%. In North Carolina, HCV prevalence for people younger than 18 is <0.1% in 2020.

NCVHP has a Perinatal HCV nurse, in charge of following the pregnant persons throughout their pregnancy, and the infant once they are born. The nurse supports postpartum birthing persons to be referred to treatment and care, while the infant will be followed to ensure testing occurs at the recommended time, so the HCV status can be determined.

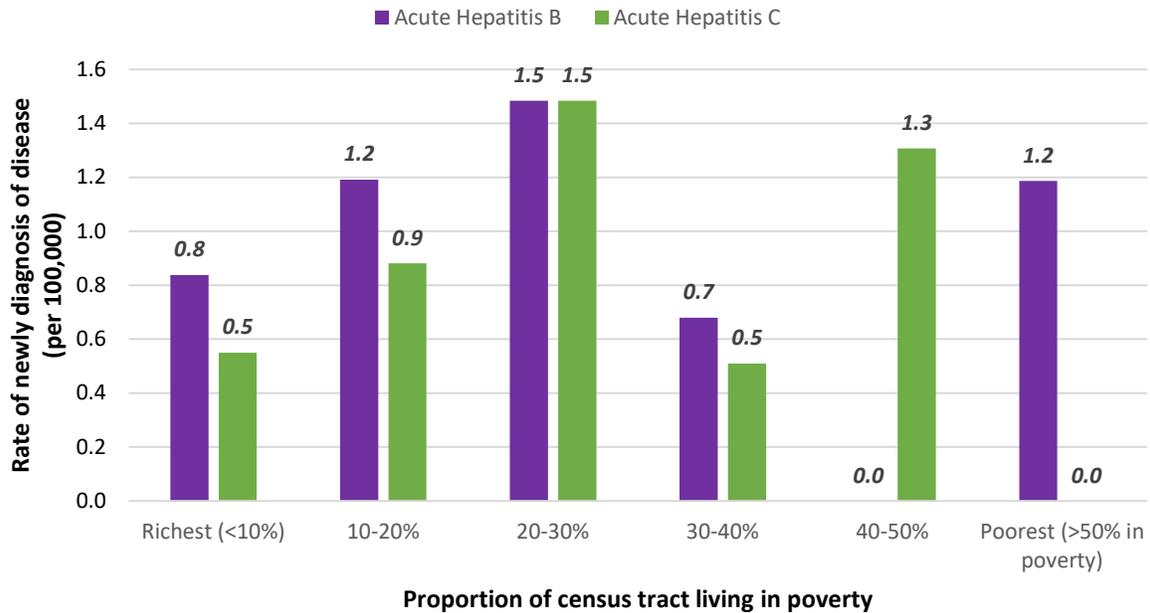
Poverty and Hepatitis

While the North Carolina surveillance data shows higher hepatitis rates in some racial and ethnic groups, factors such as poverty and large gaps in wealth distribution may be driving these differences.⁹ People who cannot afford basic needs may also have trouble accessing quality health services, and may have had negative experiences with health systems that have discouraged them from accessing testing and care programs.⁹ For each person diagnosed with acute HBV or HCV in North Carolina in 2020, we calculated the proportion of the population living below the poverty line in their census tract of residence at the time of their diagnosis using five-year (2015-2019) estimates from the American Community Survey. This calculation estimated the neighborhood poverty level experienced for people newly diagnosed with acute HBV or HCV in North Carolina. Figure 6 shows the rate of newly diagnosed acute HBV and HCV by census tract poverty rate. This figure demonstrates that although people living at

⁹Centers for Disease Control and Prevention. (2017). STD health equity. Updated February 15, 2017. Accessed July 19, 2017. Retrieved from <https://www.cdc.gov/std/health-disparities/default.htm#ftn5>.

all levels of poverty get acute HBV and HCV, those living in census tracts with a higher proportion of residents residing below the federal poverty line are more likely to be diagnosed with HCV.

Figure 6. People Diagnosed with Acute Hepatitis B and C in North Carolina by Poverty Indicator[^], 2020*



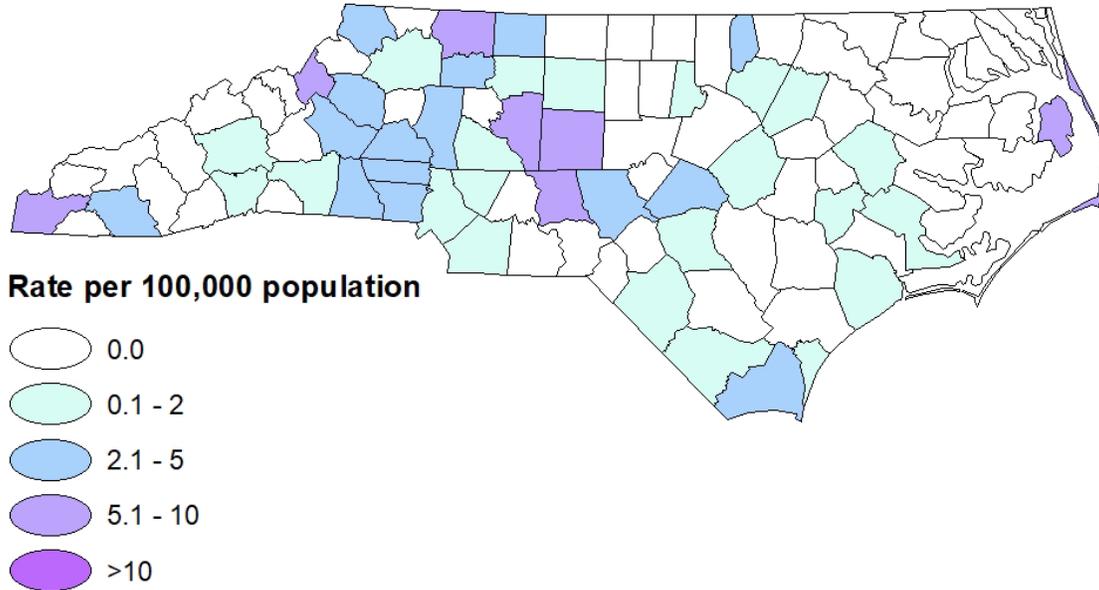
[^]Estimates of people living below the poverty line within a census tract and all population estimates obtained from the American Community Survey, 2015-2019, five-year estimate.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

Data Sources: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021), and 2015-2019 American Community Survey (ACS) five-year estimates (accessed from <https://www.census.gov/programs-surveys/acs/>).

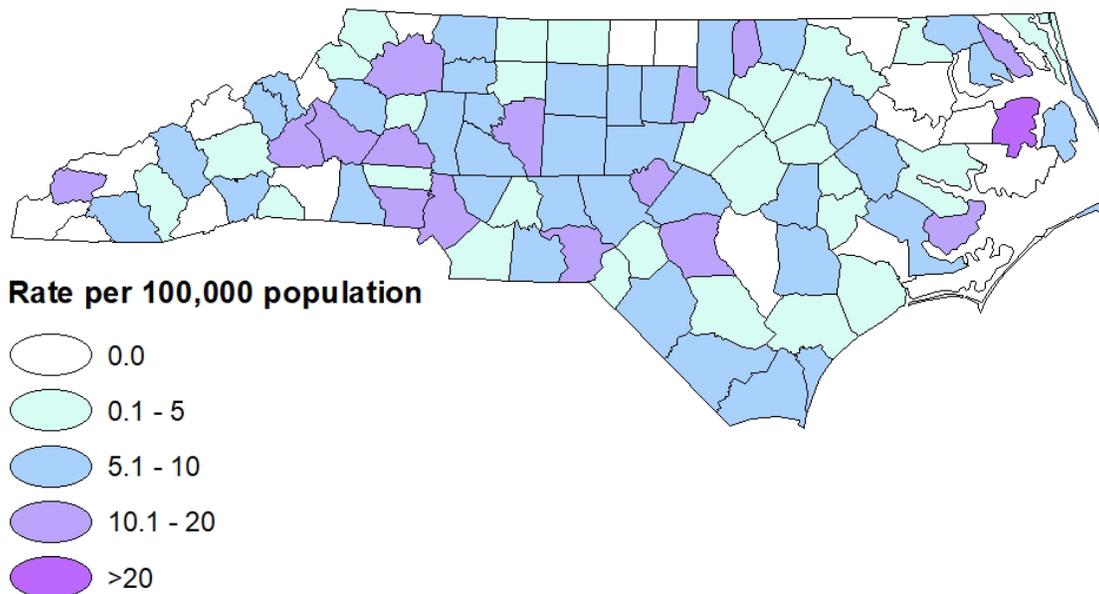
Hepatitis B and C Rate Maps by County of Residence at Diagnosis, 2020

Figure 7. Acute Hepatitis B Rates in North Carolina by County of Residence at Diagnosis, 2020*



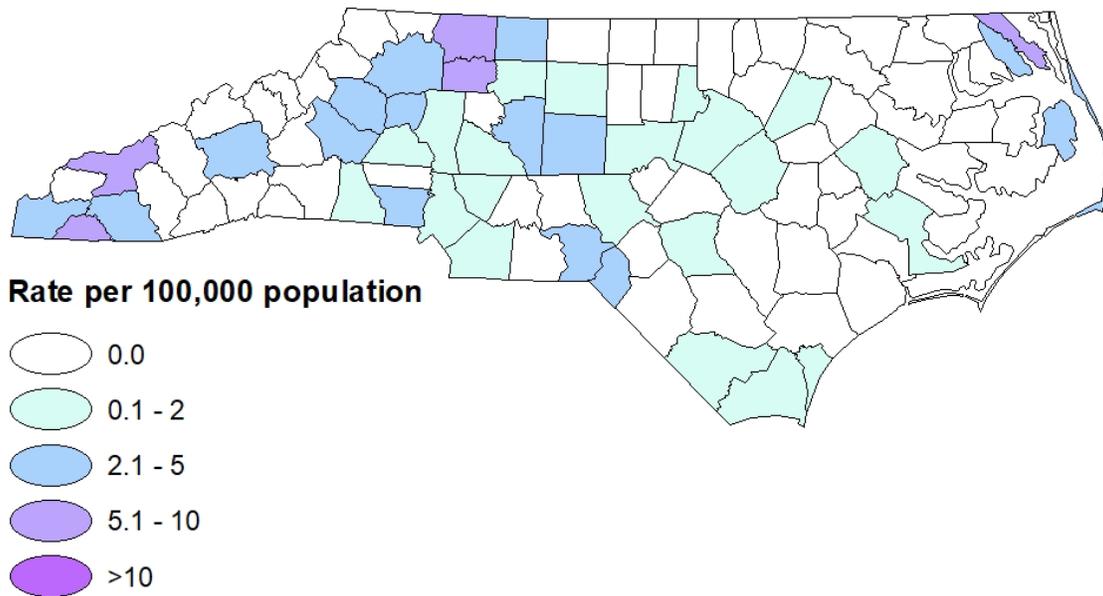
*Note: 2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Figure 8. Newly Diagnosed Chronic Hepatitis B Rates in North Carolina by County of Residence at Diagnosis, 2020*



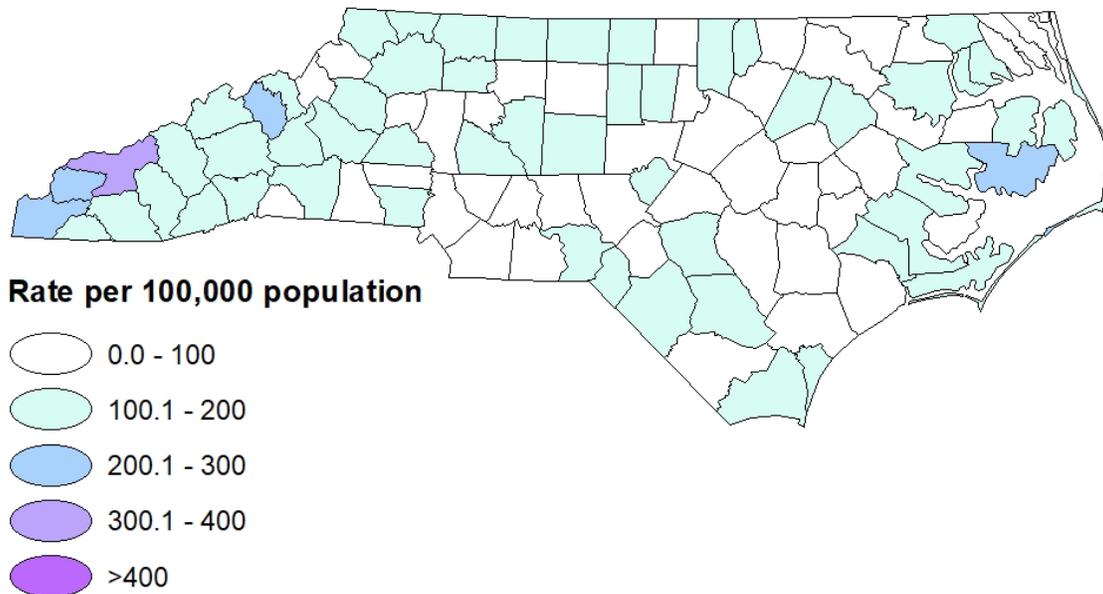
*Note: 2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Figure 9. Acute Hepatitis C Rates in North Carolina by County of Residence at Diagnosis, 2020*



*Note: 2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic.
 Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Figure 10. Newly Reported Chronic Hepatitis C Rates in North Carolina by County of Residence at Diagnosis, 2020*



Note: Concentrations in some counties may be due to increased availability to testing.
 *2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic.
 Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

County Totals and Rates for Hepatitis B and C, 2020

Table 1. Acute Hepatitis B Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016-2020..... 2

Table 2. Number of People Diagnosed with Chronic Hepatitis B, Presumed Alive, and Residing in North Carolina by Most Recently Known County of Residence as of 12/31/2020 5

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Table 4. Acute Hepatitis C Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016-2020..... 9

Table 5. Number of People Diagnosed with Chronic Hepatitis C, Presumed Alive, and Residing in North Carolina as of 12/31/2020 by County of Residence when Reported to the State 12

Table 6. Newly Reported Chronic Hepatitis C Annual Rates in North Carolina by County of Report and Year of Report, 2016-2020..... 13

Table 1. Acute Hepatitis B Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a	Cases	Rate ^a						
Alamance	0	0.0	0	0.0	1	0.6	0	0.0	<i>0</i>	<i>0.0</i>
Alexander	0	0.0	1	2.7	2	5.4	0	0.0	<i>0</i>	<i>0.0</i>
Alleghany	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Anson	1	4.0	4	16.1	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Ashe	0	0.0	0	0.0	3	11.1	1	3.7	<i>1</i>	<i>3.7</i>
Avery	0	0.0	0	0.0	0	0.0	0	0.0	<i>1</i>	<i>5.7</i>
Beaufort	0	0.0	1	2.1	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Bertie	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Bladen	0	0.0	0	0.0	1	3.0	0	0.0	<i>0</i>	<i>0.0</i>
Brunswick	4	3.2	7	5.3	5	3.6	3	2.1	<i>4</i>	<i>2.7</i>
Buncombe	3	1.2	4	1.6	2	0.8	2	0.8	<i>4</i>	<i>1.5</i>
Burke	5	5.6	6	6.7	8	8.9	2	2.2	<i>3</i>	<i>3.3</i>
Cabarrus	1	0.5	3	1.4	5	2.4	5	2.3	<i>3</i>	<i>1.4</i>
Caldwell	18	22.0	7	8.5	7	8.5	3	3.6	<i>3</i>	<i>3.7</i>
Camden	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Carteret	2	2.9	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Caswell	0	0.0	0	0.0	2	8.8	0	0.0	<i>0</i>	<i>0.0</i>
Catawba	5	3.2	7	4.4	9	5.7	3	1.9	<i>5</i>	<i>3.1</i>
Chatham	1	1.4	0	0.0	2	2.7	0	0.0	<i>0</i>	<i>0.0</i>
Cherokee	6	21.5	3	10.7	1	3.5	2	7.0	<i>2</i>	<i>6.9</i>
Chowan	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Clay	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Cleveland	2	2.1	2	2.1	4	4.1	4	4.1	<i>3</i>	<i>3.0</i>
Columbus	2	3.6	1	1.8	1	1.8	3	5.4	<i>1</i>	<i>1.8</i>
Craven	1	1.0	1	1.0	2	1.9	1	1.0	<i>2</i>	<i>2.0</i>
Cumberland	4	1.2	6	1.8	4	1.2	1	0.3	<i>5</i>	<i>1.5</i>
Currituck	1	3.9	0	0.0	0	0.0	1	3.6	<i>0</i>	<i>0.0</i>
Dare	0	0.0	1	2.8	0	0.0	1	2.7	<i>2</i>	<i>5.3</i>
Davidson	5	3.0	6	3.6	2	1.2	4	2.4	<i>9</i>	<i>5.3</i>
Davie	0	0.0	0	0.0	1	2.4	0	0.0	<i>0</i>	<i>0.0</i>
Duplin	0	0.0	1	1.7	0	0.0	1	1.7	<i>0</i>	<i>0.0</i>
Durham	3	1.0	6	1.9	3	0.9	3	0.9	<i>1</i>	<i>0.3</i>
Edgecombe	0	0.0	0	0.0	0	0.0	1	1.9	<i>0</i>	<i>0.0</i>
Forsyth	1	0.3	9	2.4	12	3.2	9	2.4	<i>1</i>	<i>0.3</i>
Franklin	2	3.1	1	1.5	1	1.5	1	1.4	<i>1</i>	<i>1.4</i>
Gaston	20	9.2	12	5.5	27	12.1	16	7.1	<i>11</i>	<i>4.9</i>
Gates	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Graham	3	35.1	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Granville	1	1.7	0	0.0	2	3.3	0	0.0	<i>0</i>	<i>0.0</i>
Greene	0	0.0	1	4.8	2	9.5	0	0.0	<i>0</i>	<i>0.0</i>
Guilford	7	1.3	13	2.5	13	2.4	16	3.0	<i>3</i>	<i>0.6</i>

Continued

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 1 (Continued). Acute Hepatitis B Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a	Cases	Rate ^a						
Halifax	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Harnett	3	2.3	6	4.5	1	0.7	3	2.2	<i>3</i>	<i>2.2</i>
Haywood	4	6.6	0	0.0	3	4.8	0	0.0	<i>0</i>	<i>0.0</i>
Henderson	0	0.0	1	0.9	0	0.0	0	0.0	<i>2</i>	<i>1.7</i>
Hertford	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Hoke	0	0.0	0	0.0	1	1.8	0	0.0	<i>0</i>	<i>0.0</i>
Hyde	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Iredell	1	0.6	4	2.3	2	1.1	5	2.7	<i>5</i>	<i>2.7</i>
Jackson	3	7.0	3	6.9	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Johnston	3	1.6	0	0.0	1	0.5	1	0.5	<i>1</i>	<i>0.5</i>
Jones	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Lee	2	3.4	7	11.6	5	8.2	3	4.9	<i>0</i>	<i>0.0</i>
Lenoir	0	0.0	1	1.8	1	1.8	0	0.0	<i>1</i>	<i>1.8</i>
Lincoln	1	1.2	2	2.4	4	4.7	5	5.8	<i>2</i>	<i>2.3</i>
Macon	1	2.9	1	2.9	0	0.0	0	0.0	<i>1</i>	<i>2.8</i>
Madison	2	9.3	1	4.6	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Martin	1	4.3	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
McDowell	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Mecklenburg	9	0.9	10	0.9	14	1.3	10	0.9	<i>13</i>	<i>1.2</i>
Mitchell	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Montgomery	0	0.0	0	0.0	0	0.0	0	0.0	<i>2</i>	<i>7.3</i>
Moore	4	4.2	2	2.1	1	1.0	0	0.0	<i>3</i>	<i>2.9</i>
Nash	0	0.0	0	0.0	0	0.0	2	2.1	<i>1</i>	<i>1.1</i>
New Hanover	1	0.4	3	1.3	1	0.4	2	0.9	<i>2</i>	<i>0.8</i>
Northampton	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Onslow	0	0.0	0	0.0	1	0.5	2	1.0	<i>1</i>	<i>0.5</i>
Orange	0	0.0	2	1.4	1	0.7	5	3.4	<i>0</i>	<i>0.0</i>
Pamlico	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Pasquotank	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Pender	1	1.7	0	0.0	1	1.6	3	4.8	<i>0</i>	<i>0.0</i>
Perquimans	0	0.0	0	0.0	1	7.4	0	0.0	<i>0</i>	<i>0.0</i>
Person	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Pitt	0	0.0	0	0.0	1	0.6	0	0.0	<i>3</i>	<i>1.6</i>
Polk	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Randolph	3	2.1	7	4.9	22	15.4	17	11.8	<i>9</i>	<i>6.2</i>
Richmond	1	2.2	0	0.0	1	2.2	1	2.2	<i>0</i>	<i>0.0</i>
Robeson	3	2.2	1	0.8	1	0.8	1	0.8	<i>1</i>	<i>0.8</i>
Rockingham	1	1.1	2	2.2	2	2.2	0	0.0	<i>0</i>	<i>0.0</i>
Rowan	5	3.6	5	3.6	13	9.2	7	4.9	<i>1</i>	<i>0.7</i>
Rutherford	0	0.0	1	1.5	1	1.5	1	1.5	<i>1</i>	<i>1.5</i>

Continued

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 1 (Continued). Acute Hepatitis B Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a								
Sampson	1	1.6	0	0.0	0	0.0	1	1.6	<i>0</i>	<i>0.0</i>
Scotland	0	0.0	0	0.0	0	0.0	1	2.9	<i>0</i>	<i>0.0</i>
Stanly	0	0.0	1	1.6	2	3.2	1	1.6	<i>0</i>	<i>0.0</i>
Stokes	2	4.4	3	6.6	2	4.4	1	2.2	<i>1</i>	<i>2.2</i>
Surry	1	1.4	0	0.0	0	0.0	4	5.6	<i>5</i>	<i>7.0</i>
Swain	0	0.0	1	7.0	1	7.0	1	7.0	<i>0</i>	<i>0.0</i>
Transylvania	1	3.0	0	0.0	0	0.0	2	5.8	<i>0</i>	<i>0.0</i>
Tyrrell	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Union	1	0.4	0	0.0	1	0.4	1	0.4	<i>2</i>	<i>0.8</i>
Vance	3	6.7	4	9.0	4	8.9	8	17.9	<i>2</i>	<i>4.5</i>
Wake	4	0.4	4	0.4	4	0.4	5	0.4	<i>0</i>	<i>0.0</i>
Warren	3	15.1	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Washington	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Watauga	0	0.0	2	3.6	1	1.8	0	0.0	<i>0</i>	<i>0.0</i>
Wayne	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Wilkes	2	2.9	3	4.4	4	5.8	2	2.9	<i>1</i>	<i>1.5</i>
Wilson	1	1.2	1	1.2	1	1.2	1	1.2	<i>0</i>	<i>0.0</i>
Yadkin	1	2.7	1	2.7	2	5.3	1	2.7	<i>1</i>	<i>2.7</i>
Yancey	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Unassigned ^b	2	---	5	---	4	---	7	---	<i>2</i>	<i>---</i>
North Carolina	169	1.7	187	1.8	227	2.2	187	1.8	131	1.2

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

^bUnassigned includes cases with unknown county of residence at diagnosis or cases that were diagnosed at long-term residence facilities, including prisons; rates are not available due to the lack of overall population data in the unassigned area.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 2. Number of People Diagnosed with Chronic Hepatitis B, Presumed Alive, and Residing in North Carolina by Most Recently Known County^a of Residence as of 12/31/2020*

County	Cases	County	Cases	County	Cases
Alamance	187	Gaston	525	Pitt	315
Alexander	42	Gates	11	Polk	10
Alleghany	3	Graham	12	Randolph	238
Anson	50	Granville	126	Richmond	97
Ashe	17	Greene	31	Robeson	220
Avery	17	Guilford	2,071	Rockingham	107
Beaufort	68	Halifax	81	Rowan	245
Bertie	39	Harnett	162	Rutherford	80
Bladen	34	Haywood	68	Sampson	60
Brunswick	174	Henderson	138	Scotland	79
Buncombe	488	Hertford	56	Stanly	87
Burke	334	Hoke	110	Stokes	40
Cabarrus	306	Hyde	2	Surry	79
Caldwell	128	Iredell	256	Swain	25
Camden	10	Jackson	35	Transylvania	20
Carteret	89	Johnston	158	Tyrrell	8
Caswell	20	Jones	14	Union	284
Catawba	558	Lee	127	Vance	129
Chatham	66	Lenoir	133	Wake	2,894
Cherokee	38	Lincoln	70	Warren	26
Chowan	14	Macon	37	Washington	18
Clay	15	Madison	15	Watauga	57
Cleveland	183	Martin	25	Wayne	203
Columbus	83	McDowell	51	Wilkes	153
Craven	388	Mecklenburg	4,613	Wilson	165
Cumberland	1,230	Mitchell	13	Yadkin	46
Currituck	20	Montgomery	38	Yancey	15
Dare	27	Moore	134	Unassigned ^b	2,459
Davidson	299	Nash	194	North Carolina	26,299
Davie	60	New Hanover	476		
Duplin	74	Northampton	29		
Durham	1,113	Onslow	306		
Edgecombe	122	Orange	448		
Forsyth	990	Pamlico	17		
Franklin	71	Pasquotank	77		
		Pender	89		
		Perquimans	8		
		Person	27		

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic.

^aBased on most recent known address from North Carolina Electronic Disease Surveillance System (NC EDSS) as of August 1, 2021.

^bUnassigned includes cases diagnosed at long-term residence facilities, including prisons.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 3. Newly Diagnosed Chronic Hepatitis B Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a								
Alamance	12	7.5	10	6.1	11	6.6	7	4.1	12	7.0
Alexander	0	0.0	0	0.0	1	2.7	0	0.0	1	2.7
Alleghany	1	9.2	0	0.0	0	0.0	0	0.0	0	0.0
Anson	2	7.9	1	4.0	2	8.2	3	12.7	2	8.3
Ashe	2	7.5	1	3.7	1	3.7	0	0.0	1	3.7
Avery	1	5.7	1	5.7	0	0.0	4	22.9	0	0.0
Beaufort	3	6.3	6	12.7	3	6.4	1	2.1	1	2.1
Bertie	2	10.3	0	0.0	1	5.2	1	5.3	0	0.0
Bladen	3	8.9	4	12.0	2	6.0	1	3.0	1	3.0
Brunswick	9	7.1	9	6.9	12	8.8	13	9.1	8	5.4
Buncombe	15	5.9	27	10.5	25	9.6	21	8.0	13	4.9
Burke	14	15.7	16	17.7	19	21.0	10	11.1	15	16.6
Cabarrus	10	5.0	19	9.2	15	7.1	21	9.7	17	7.7
Caldwell	24	29.3	12	14.6	20	24.4	9	10.9	7	8.5
Camden	0	0.0	1	9.5	0	0.0	0	0.0	0	0.0
Carteret	2	2.9	6	8.7	2	2.9	3	4.3	0	0.0
Caswell	2	8.8	0	0.0	0	0.0	2	8.9	0	0.0
Catawba	15	9.6	19	12.0	13	8.2	21	13.2	17	10.6
Chatham	7	10.0	7	9.8	8	10.9	5	6.7	5	6.6
Cherokee	3	10.8	5	17.9	2	7.0	3	10.5	0	0.0
Chowan	0	0.0	0	0.0	0	0.0	3	21.6	0	0.0
Clay	0	0.0	0	0.0	1	9.0	2	17.7	0	0.0
Cleveland	6	6.2	5	5.1	6	6.1	11	11.2	6	6.1
Columbus	5	8.9	5	8.9	5	9.0	5	9.0	5	9.1
Craven	18	17.5	10	9.7	25	24.4	18	17.6	9	8.9
Cumberland	52	15.6	50	15.1	45	13.5	59	17.5	35	10.4
Currituck	5	19.5	2	7.6	0	0.0	1	3.6	1	3.4
Dare	1	2.8	2	5.5	2	5.4	1	2.7	2	5.3
Davidson	9	5.5	26	15.7	17	10.2	30	17.8	25	14.8
Davie	3	7.2	8	18.9	2	4.7	3	7.0	4	9.2
Duplin	6	10.1	6	10.2	3	5.1	1	1.7	4	6.8
Durham	79	25.6	59	18.9	54	17.0	51	15.8	40	12.2
Edgecombe	4	7.5	3	5.7	1	1.9	6	11.7	5	9.8
Forsyth	48	12.9	37	9.8	45	11.9	32	8.4	16	4.2
Franklin	6	9.3	3	4.5	4	5.9	3	4.3	1	1.4
Gaston	25	11.5	45	20.5	33	14.8	22	9.8	39	17.2
Gates	0	0.0	2	17.4	1	8.7	0	0.0	1	8.7
Graham	2	23.4	0	0.0	1	11.8	2	23.6	1	11.8
Granville	7	11.9	5	8.4	5	8.3	8	13.3	4	6.6
Greene	1	4.7	4	19.1	3	14.3	1	4.8	1	4.8
Guilford	120	22.9	75	14.2	74	13.9	85	15.8	32	5.9

Continued

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 3 (Continued). Newly Diagnosed Chronic Hepatitis B Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a	Cases	Rate ^a						
Halifax	7	13.5	4	7.8	2	3.9	1	2.0	<i>2</i>	<i>4.0</i>
Harnett	8	6.1	20	15.1	12	8.9	6	4.4	<i>12</i>	<i>8.8</i>
Haywood	7	11.6	1	1.6	6	9.7	3	4.8	<i>4</i>	<i>6.4</i>
Henderson	8	7.0	8	6.9	6	5.1	10	8.5	<i>6</i>	<i>5.1</i>
Hertford	1	4.1	1	4.2	1	4.2	6	25.4	<i>1</i>	<i>4.3</i>
Hoke	7	13.2	6	11.1	8	14.6	8	14.5	<i>2</i>	<i>3.6</i>
Hyde	0	0.0	1	19.1	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Iredell	12	7.0	10	5.7	12	6.7	15	8.2	<i>12</i>	<i>6.5</i>
Jackson	2	4.7	4	9.3	4	9.2	3	6.9	<i>1</i>	<i>2.3</i>
Johnston	12	6.3	8	4.1	14	6.9	10	4.8	<i>5</i>	<i>2.3</i>
Jones	1	10.4	1	10.5	1	10.5	2	21.4	<i>0</i>	<i>0.0</i>
Lee	11	18.4	5	8.3	8	13.1	4	6.5	<i>8</i>	<i>12.8</i>
Lenoir	3	5.2	5	8.8	4	7.1	7	12.5	<i>2</i>	<i>3.6</i>
Lincoln	7	8.6	2	2.4	4	4.7	5	5.8	<i>4</i>	<i>4.5</i>
Macon	1	2.9	2	5.8	3	8.5	0	0.0	<i>2</i>	<i>5.6</i>
Madison	0	0.0	1	4.6	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Martin	1	4.3	2	8.8	0	0.0	1	4.5	<i>0</i>	<i>0.0</i>
McDowell	2	4.5	0	0.0	4	8.8	5	10.9	<i>5</i>	<i>10.9</i>
Mecklenburg	169	16.0	152	14.1	137	12.5	148	13.3	<i>119</i>	<i>10.5</i>
Mitchell	0	0.0	2	13.3	0	0.0	1	6.7	<i>1</i>	<i>6.7</i>
Montgomery	4	14.7	3	11.0	2	7.4	2	7.4	<i>2</i>	<i>7.3</i>
Moore	9	9.4	5	5.1	11	11.1	10	9.9	<i>7</i>	<i>6.8</i>
Nash	7	7.4	8	8.5	9	9.6	9	9.5	<i>3</i>	<i>3.2</i>
New Hanover	22	9.8	16	7.0	14	6.0	26	11.1	<i>19</i>	<i>8.0</i>
Northampton	0	0.0	1	5.0	2	10.1	0	0.0	<i>0</i>	<i>0.0</i>
Onslow	14	7.3	16	8.2	14	7.1	14	6.9	<i>2</i>	<i>1.0</i>
Orange	33	23.1	22	15.3	20	13.5	20	13.5	<i>13</i>	<i>8.7</i>
Pamlico	1	7.8	2	15.8	1	7.9	6	47.4	<i>2</i>	<i>15.7</i>
Pasquotank	5	12.7	5	12.7	6	15.1	5	12.5	<i>5</i>	<i>12.4</i>
Pender	3	5.1	6	9.9	1	1.6	3	4.8	<i>2</i>	<i>3.1</i>
Perquimans	0	0.0	0	0.0	1	7.4	1	7.4	<i>1</i>	<i>7.3</i>
Person	2	5.1	0	0.0	2	5.1	0	0.0	<i>0</i>	<i>0.0</i>
Pitt	10	5.6	11	6.2	12	6.7	10	5.5	<i>12</i>	<i>6.6</i>
Polk	0	0.0	1	4.9	1	4.8	0	0.0	<i>1</i>	<i>4.8</i>
Randolph	13	9.1	10	7.0	21	14.7	15	10.5	<i>12</i>	<i>8.3</i>
Richmond	1	2.2	5	11.2	8	17.8	7	15.6	<i>6</i>	<i>13.5</i>
Robeson	7	5.2	15	11.3	7	5.3	9	6.9	<i>13</i>	<i>10.0</i>
Rockingham	5	5.5	8	8.8	12	13.2	3	3.3	<i>3</i>	<i>3.3</i>
Rowan	16	11.5	13	9.3	17	12.1	18	12.7	<i>12</i>	<i>8.4</i>
Rutherford	6	9.0	2	3.0	0	0.0	4	6.0	<i>0</i>	<i>0.0</i>

Continued

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 3(Continued). Newly Diagnosed Chronic Hepatitis B Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2015-2019

County	2015		2016		2017		2018		2019	
	Cases	Rate ^a	Cases	Rate ^a						
Sampson	3	4.7	3	4.7	4	6.3	4	6.3	0	0.0
Scotland	1	2.8	5	14.2	2	5.8	1	2.9	1	2.9
Stanly	0	0.0	2	3.3	3	4.8	3	4.8	2	3.2
Stokes	2	4.4	5	10.9	1	2.2	5	11.0	2	4.4
Surry	1	1.4	2	2.8	4	5.6	5	7.0	6	8.4
Swain	3	21.1	5	35.0	2	14.0	0	0.0	0	0.0
Transylvania	1	3.0	3	8.9	0	0.0	0	0.0	0	0.0
Tyrrell	1	24.9	1	24.0	0	0.0	0	0.0	1	26.5
Union	8	3.5	16	6.9	15	6.4	12	5.0	12	4.9
Vance	6	13.5	13	29.3	7	15.6	6	13.4	7	15.7
Wake	346	33.0	168	15.7	161	14.7	156	14.0	36	3.2
Warren	0	0.0	2	10.1	1	5.0	1	5.1	1	5.1
Washington	0	0.0	1	8.4	0	0.0	0	0.0	0	0.0
Watauga	2	3.7	3	5.4	2	3.6	3	5.3	2	3.5
Wayne	11	8.8	11	8.9	6	4.9	10	8.1	8	6.5
Wilkes	14	20.4	21	30.7	16	23.4	7	10.2	12	17.6
Wilson	3	3.7	4	4.9	8	9.8	10	12.2	4	4.9
Yadkin	0	0.0	1	2.7	3	8.0	6	16.0	2	5.3
Yancey	3	17.1	1	5.6	0	0.0	1	5.5	1	5.5
Unassigned ^b	38	---	37	---	43	---	54	---	39	---
North Carolina	1,384	13.6	1,179	11.5	1,129	10.9	1,150	11.0	768	7.2

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bUnassigned includes cases diagnosed at long-term residence facilities, including prisons.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 4. Acute Hepatitis C Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016[^]-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a								
Alamance	1	0.6	3	1.8	3	1.8	2	1.2	0	0.0
Alexander	1	2.7	1	2.7	0	0.0	0	0.0	1	2.7
Alleghany	0	0.0	1	9.1	0	0.0	0	0.0	0	0.0
Anson	1	4.0	0	0.0	0	0.0	2	8.5	0	0.0
Ashe	1	3.8	0	0.0	2	7.4	0	0.0	0	0.0
Avery	1	5.7	0	0.0	0	0.0	0	0.0	0	0.0
Beaufort	0	0.0	0	0.0	3	6.4	0	0.0	0	0.0
Bertie	0	0.0	0	0.0	0	0.0	1	5.3	0	0.0
Bladen	1	3.0	0	0.0	0	0.0	0	0.0	0	0.0
Brunswick	13	10.3	11	8.4	2	1.5	3	2.1	1	0.7
Buncombe	1	0.4	3	1.2	5	1.9	3	1.1	9	3.4
Burke	4	4.5	3	3.3	6	6.6	0	0.0	2	2.2
Cabarrus	0	0.0	1	0.5	1	0.5	2	0.9	1	0.5
Caldwell	11	13.4	10	12.2	4	4.9	7	8.5	3	3.7
Camden	0	0.0	0	0.0	0	0.0	1	9.3	1	9.1
Carteret	0	0.0	0	0.0	1	1.4	0	0.0	0	0.0
Caswell	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Catawba	8	5.1	4	2.5	1	0.6	3	1.9	3	1.9
Chatham	1	1.4	1	1.4	0	0.0	0	0.0	1	1.3
Cherokee	2	7.2	4	14.3	0	0.0	1	3.5	1	3.4
Chowan	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Clay	2	18.5	0	0.0	1	9.0	0	0.0	1	8.7
Cleveland	0	0.0	2	2.1	3	3.1	2	2.0	1	1.0
Columbus	1	1.8	1	1.8	0	0.0	0	0.0	1	1.8
Craven	3	2.9	1	1.0	3	2.9	2	2.0	1	1.0
Cumberland	2	0.6	4	1.2	2	0.6	4	1.2	3	0.9
Currituck	1	3.9	2	7.6	0	0.0	0	0.0	0	0.0
Dare	0	0.0	0	0.0	0	0.0	0	0.0	1	2.7
Davidson	0	0.0	2	1.2	6	3.6	8	4.8	4	2.4
Davie	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Duplin	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Durham	0	0.0	1	0.3	5	1.6	4	1.2	3	0.9
Edgecombe	0	0.0	3	5.7	1	1.9	0	0.0	0	0.0
Forsyth	4	1.1	6	1.6	7	1.8	10	2.6	1	0.3
Franklin	0	0.0	2	3.0	1	1.5	1	1.4	0	0.0
Gaston	0	0.0	7	3.2	13	5.8	6	2.7	11	4.9
Gates	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Graham	5	58.5	1	11.7	0	0.0	0	0.0	0	0.0
Granville	0	0.0	0	0.0	4	6.7	0	0.0	0	0.0
Greene	0	0.0	2	9.5	0	0.0	1	4.8	0	0.0
Guilford	4	0.8	6	1.1	7	1.3	6	1.1	2	0.4

Continued

[^]Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 4 (Continued). Acute Hepatitis C Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016[^]-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a								
Halifax	1	1.9	0	0.0	1	2.0	0	0.0	0	0.0
Harnett	6	4.6	4	3.0	0	0.0	1	0.7	0	0.0
Haywood	2	3.3	1	1.6	1	1.6	2	3.2	0	0.0
Henderson	0	0.0	1	0.9	1	0.9	1	0.9	0	0.0
Hertford	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hoke	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hyde	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0
Iredell	6	3.5	7	4.0	5	2.8	7	3.8	2	1.1
Jackson	3	7.0	6	13.9	5	11.5	1	2.3	0	0.0
Johnston	5	2.6	3	1.5	1	0.5	5	2.4	4	1.8
Jones	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Lee	0	0.0	1	1.7	0	0.0	0	0.0	0	0.0
Lenoir	1	1.7	3	5.3	0	0.0	2	3.6	0	0.0
Lincoln	1	1.2	4	4.8	3	3.6	3	3.5	0	0.0
Macon	3	8.7	1	2.9	0	0.0	0	0.0	1	2.8
Madison	1	4.7	1	4.6	3	13.9	2	9.2	0	0.0
Martin	1	4.3	0	0.0	0	0.0	0	0.0	0	0.0
McDowell	1	2.2	2	4.4	0	0.0	0	0.0	0	0.0
Mecklenburg	2	0.2	2	0.2	5	0.5	3	0.3	4	0.4
Mitchell	1	6.7	0	0.0	1	6.7	0	0.0	0	0.0
Montgomery	0	0.0	2	7.3	1	3.7	0	0.0	0	0.0
Moore	5	5.2	1	1.0	1	1.0	0	0.0	1	1.0
Nash	1	1.1	2	2.1	0	0.0	5	5.3	1	1.1
New Hanover	10	4.4	6	2.6	7	3.0	5	2.1	1	0.4
Northampton	0	0.0	0	0.0	1	5.1	0	0.0	0	0.0
Onslow	4	2.1	6	3.1	1	0.5	3	1.5	0	0.0
Orange	0	0.0	3	2.1	1	0.7	3	2.0	0	0.0
Pamlico	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pasquotank	3	7.6	0	0.0	1	2.5	0	0.0	1	2.5
Pender	0	0.0	0	0.0	1	1.6	1	1.6	0	0.0
Perquimans	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Person	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pitt	1	0.6	2	1.1	5	2.8	3	1.7	1	0.5
Polk	0	0.0	2	9.7	0	0.0	0	0.0	0	0.0
Randolph	13	9.1	13	9.1	16	11.2	8	5.6	3	2.1
Richmond	1	2.2	0	0.0	0	0.0	1	2.2	1	2.3
Robeson	1	0.7	1	0.8	1	0.8	2	1.5	0	0.0
Rockingham	4	4.4	3	3.3	0	0.0	0	0.0	0	0.0
Rowan	1	0.7	0	0.0	1	0.7	5	3.5	2	1.4
Rutherford	8	12.1	3	4.5	1	1.5	2	3.0	0	0.0

Continued

[^]Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 4 (Continued). Acute Hepatitis C Annual Rates in North Carolina by County of Diagnosis and Year of Diagnosis, 2016[^]-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a	Cases	Rate ^a						
Sampson	1	1.6	2	3.2	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Scotland	0	0.0	0	0.0	1	2.9	3	8.6	<i>1</i>	<i>2.9</i>
Stanly	0	0.0	4	6.5	3	4.8	0	0.0	<i>0</i>	<i>0.0</i>
Stokes	0	0.0	1	2.2	2	4.4	2	4.4	<i>1</i>	<i>2.2</i>
Surry	9	12.5	3	4.2	6	8.3	4	5.6	<i>5</i>	<i>7.0</i>
Swain	4	28.2	2	14.0	5	35.1	1	7.0	<i>1</i>	<i>7.1</i>
Transylvania	2	6.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Tyrrell	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Union	3	1.3	3	1.3	4	1.7	5	2.1	<i>2</i>	<i>0.8</i>
Vance	0	0.0	1	2.3	1	2.2	0	0.0	<i>0</i>	<i>0.0</i>
Wake	1	0.1	7	0.7	10	0.9	9	0.8	<i>2</i>	<i>0.2</i>
Warren	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Washington	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Watauga	8	14.8	1	1.8	3	5.3	0	0.0	<i>0</i>	<i>0.0</i>
Wayne	0	0.0	0	0.0	0	0.0	1	0.8	<i>0</i>	<i>0.0</i>
Wilkes	7	10.2	0	0.0	0	0.0	0	0.0	<i>3</i>	<i>4.4</i>
Wilson	1	1.2	1	1.2	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Yadkin	1	2.7	1	2.7	0	0.0	1	2.7	<i>3</i>	<i>8.0</i>
Yancey	0	0.0	0	0.0	0	0.0	0	0.0	<i>0</i>	<i>0.0</i>
Unassigned ^b	12	---	2	---	17	---	25	---	<i>8</i>	<i>---</i>
North Carolina	203	2.0	190	1.8	198	1.9	185	1.8	<i>100</i>	<i>0.9</i>

[^]Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 5. Number of People Diagnosed with Chronic Hepatitis C, Presumed Alive, and Residing in North Carolina as of 12/31/2020* by County of Residence when Reported to the State

County	Cases	County	Cases	County	Cases
Alamance	946	Gaston	1,417	Perquimans	71
Alexander	235	Gates	49	Person	208
Alleghany	81	Graham	126	Pitt	3,208
Anson	96	Granville	485	Polk	104
Ashe	119	Greene	312	Randolph	1,024
Avery	112	Guilford	2,366	Richmond	305
Beaufort	334	Halifax	301	Robeson	724
Bertie	106	Harnett	653	Rockingham	484
Bladen	175	Haywood	695	Rowan	1,097
Brunswick	934	Henderson	769	Rutherford	454
Buncombe	3,056	Hertford	133	Sampson	304
Burke	832	Hoke	193	Scotland	209
Cabarrus	644	Hyde	46	Stanly	226
Caldwell	681	Iredell	856	Stokes	260
Camden	28	Jackson	439	Surry	430
Carteret	516	Johnston	837	Swain	254
Caswell	134	Jones	63	Transylvania	288
Catawba	942	Lee	420	Tyrrell	38
Chatham	303	Lenoir	360	Union	495
Cherokee	400	Lincoln	335	Vance	311
Chowan	86	Macon	339	Wake	4,379
Clay	82	Madison	273	Warren	75
Cleveland	418	Martin	186	Washington	54
Columbus	338	McDowell	516	Watauga	179
Craven	1,020	Mecklenburg	3,520	Wayne	661
Cumberland	1,875	Mitchell	172	Wilkes	635
Currituck	119	Montgomery	161	Wilson	720
Dare	250	Moore	421	Yadkin	270
Davidson	1,411	Nash	731	Yancey	208
Davie	221	New Hanover	1,357	Unassigned ^b	12,768
Duplin	180	Northampton	106	North Carolina	72,552
Durham	2,225	Onslow	799		
Edgecombe	503	Orange	724		
Forsyth	1,593	Pamlico	116		
Franklin	301	Pasquotank	201		
		Pender	328		

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic.

^aChronic hepatitis C became reportable in North Carolina in October 2016. Labs are only reportable by electronic lab reporting. These numbers are likely an underestimation. Newly diagnosed chronic hepatitis C is also not available at this time. This does not take into account those that have either self-cleared or have received treatment for hepatitis C.

^bUnassigned includes cases diagnosed at long-term residence facilities, including prisons. Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 6. Newly Reported Chronic Hepatitis C Annual Rates[^] in North Carolina by County of Report and Year of Report, 2016^{^^}-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a								
Alamance	78	48.6	246	150.6	274	164.5	204	120.6	173	101.0
Alexander	22	59.3	65	175.2	78	209.3	51	136.3	30	80.1
Alleghany	4	36.6	22	199.9	23	206.0	16	143.7	18	160.8
Anson	12	47.7	27	108.6	19	77.6	22	93.5	20	83.0
Ashe	7	26.3	33	123.2	24	88.5	31	113.9	29	106.8
Avery	18	103.2	35	199.7	31	177.1	18	102.9	17	96.8
Beaufort	16	33.8	57	121.0	48	101.9	169	358.8	51	108.3
Bertie	7	36.1	17	88.3	19	99.6	43	226.8	22	117.6
Bladen	7	20.8	33	98.7	46	138.7	47	143.0	45	136.7
Brunswick	76	60.1	300	229.0	218	159.0	213	149.0	161	108.0
Buncombe	131	51.3	954	370.6	843	324.6	682	260.3	512	194.3
Burke	98	109.6	264	292.9	152	168.3	196	216.8	156	172.5
Cabarrus	77	38.2	204	98.6	125	59.1	139	64.3	117	52.8
Caldwell	38	46.4	200	244.0	183	222.9	145	176.2	134	163.2
Camden	0	0.0	4	38.0	7	66.0	9	83.6	9	81.9
Carteret	43	62.4	134	194.2	112	161.0	136	195.6	103	148.1
Caswell	8	35.2	32	141.4	37	163.1	30	132.8	29	129.2
Catawba	72	46.0	248	157.1	249	157.1	196	123.0	208	129.8
Chatham	7	10.0	55	77.2	113	154.4	84	112.9	45	59.4
Cherokee	30	107.7	130	464.3	90	316.6	88	306.5	76	261.4
Chowan	2	14.1	9	64.2	29	206.9	29	208.4	18	130.3
Clay	11	102.0	28	253.8	22	197.3	12	106.4	12	104.3
Cleveland	42	43.3	111	114.2	120	123.0	97	99.0	69	69.7
Columbus	26	46.2	101	180.4	104	186.5	69	124.4	49	89.5
Craven	81	78.8	311	302.7	260	253.3	248	243.1	147	145.2
Cumberland	144	43.1	503	151.6	448	133.9	442	131.3	397	118.0
Currituck	2	7.8	35	132.9	33	121.8	31	111.0	19	65.4
Dare	22	61.3	73	201.3	62	168.9	62	167.2	45	119.8
Davidson	91	55.3	348	210.3	340	203.9	371	220.5	308	182.0
Davie	14	33.4	65	153.7	50	117.6	70	163.9	28	64.7
Duplin	12	20.2	41	69.6	48	81.4	57	96.9	24	40.8
Durham	99	32.1	771	246.7	583	183.6	490	151.7	307	93.8
Edgecombe	40	75.1	129	244.4	120	230.7	176	342.2	62	122.0
Forsyth	118	31.8	400	106.4	447	117.9	422	110.4	279	72.7
Franklin	15	23.2	74	111.8	99	146.4	75	107.5	46	64.0
Gaston	109	50.3	389	177.0	349	156.6	309	137.5	309	136.4
Gates	2	17.3	8	69.6	10	86.8	17	147.4	12	104.7
Graham	9	105.4	31	363.5	38	447.6	28	330.6	21	247.8

Continued

[^]Chronic hepatitis C surveillance started in North Carolina in October 2016 and is only reported from laboratories reporting electronically. These numbers are likely an underestimation. The number of chronic hepatitis C cases is given as “reported” rather than “newly diagnosed”; since surveillance for chronic hepatitis C is relatively new in North Carolina and our case records are incomplete, we are unable to determine whether a positive lab test reflects a new diagnosis or a new reported test result for a person who was previously diagnosed. Note: Concentrations in some counties may be due to increased availability to testing.

^{^^}Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 6 (Continued). Newly Reported Chronic Hepatitis C Annual Rates in North Carolina by County of Report and Year of Report, 2016^a-2020*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a								
Granville	16	27.2	146	245.6	142	236.3	110	182.2	83	137.2
Greene	17	80.6	60	286.2	28	133.1	192	918.0	20	95.6
Guilford	109	20.8	545	103.1	713	133.7	650	120.8	404	74.7
Halifax	14	27.0	66	128.6	83	163.7	98	195.7	48	97.0
Harnett	40	30.6	169	127.5	192	142.6	145	106.5	135	98.5
Haywood	61	100.8	213	348.2	194	312.0	145	232.0	111	176.3
Henderson	45	39.6	198	171.5	210	180.2	175	149.1	155	130.9
Hertford	5	20.7	30	125.4	33	138.2	47	198.8	22	95.2
Hoke	14	26.4	58	107.0	51	93.3	48	87.0	30	53.7
Hyde	4	73.6	9	172.1	4	79.9	19	385.2	11	227.1
Iredell	79	45.8	223	126.9	215	120.5	225	123.7	147	79.1
Jackson	39	91.5	109	252.2	117	268.7	120	274.4	65	147.6
Johnston	46	24.1	156	79.4	257	126.6	222	105.8	178	82.3
Jones	6	62.7	19	199.0	9	94.2	19	203.4	12	129.7
Lee	28	46.9	96	158.9	124	202.6	99	160.3	82	131.5
Lenoir	20	34.9	74	130.6	65	116.0	174	310.3	43	77.2
Lincoln	42	51.7	107	129.5	60	71.1	71	82.0	70	79.5
Macon	17	49.6	104	300.5	70	198.7	86	240.7	68	188.9
Madison	7	32.7	101	467.5	74	341.7	51	235.7	43	197.8
Martin	4	17.3	22	96.6	28	123.4	122	543.4	14	63.1
McDowell	22	49.0	176	390.3	128	281.4	111	242.4	86	187.8
Mecklenburg	437	41.3	1,145	106.1	729	66.5	745	66.9	617	54.7
Mitchell	14	93.3	55	366.9	52	346.9	30	201.0	22	147.8
Montgomery	19	69.6	44	161.3	39	143.9	43	158.0	21	77.1
Moore	24	25.1	85	87.3	105	106.1	121	119.6	97	93.9
Nash	62	65.9	224	238.1	146	155.1	210	222.8	109	114.9
New Hanover	104	46.2	345	150.7	328	141.0	341	145.6	278	117.5
Northampton	2	9.9	28	140.7	27	136.8	35	179.5	15	78.6
Onslow	79	41.0	167	85.5	213	108.1	170	83.8	200	98.1
Orange	23	16.1	137	95.4	236	159.4	180	121.5	152	102.0
Pamlico	17	133.1	28	221.7	37	293.7	29	229.2	11	86.5
Pasquotank	8	20.3	42	106.5	58	146.1	60	150.1	35	86.7
Pender	36	61.2	106	174.4	73	117.5	61	96.8	64	99.0
Perquimans	1	7.4	14	104.0	17	126.6	26	191.5	14	102.4
Person	10	25.4	60	152.2	64	161.9	46	116.1	35	87.7
Pitt	58	32.7	199	111.4	215	119.7	2,567	1,416.2	183	100.0
Polk	4	19.6	26	126.4	30	145.1	29	139.9	15	71.3
Randolph	89	62.2	291	203.5	285	199.1	232	161.7	169	116.9

Continued

^aChronic hepatitis C surveillance started in North Carolina in October 2016 and is only reported from laboratories reporting electronically. These numbers are likely an underestimation. The number of chronic hepatitis C cases is given as "reported" rather than "newly diagnosed"; since surveillance for chronic hepatitis C is relatively new in North Carolina and our case records are incomplete, we are unable to determine whether a positive lab test reflects a new diagnosis or a new reported test result for a person who was previously diagnosed. Note: Concentrations in some counties may be due to increased availability to testing.

^{**}Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

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^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 6 (Continued). Newly Reported Chronic Hepatitis C Annual Rates in North Carolina by County of Report and Year of Report, 2016[^]-2019*

County	2016		2017		2018		2019		2020*	
	Cases	Rate ^a	Cases	Rate ^a	Cases	Rate ^a	Cases	Rate ^a	Cases	Rate ^a
Richmond	12	26.6	49	109.4	100	222.8	99	221.2	<i>54</i>	<i>121.8</i>
Robeson	52	39.0	179	135.0	204	154.7	177	135.7	<i>150</i>	<i>115.4</i>
Rockingham	24	26.3	103	113.4	144	158.8	130	142.7	<i>96</i>	<i>105.2</i>
Rowan	89	63.8	340	242.4	264	187.4	259	182.6	<i>195</i>	<i>136.8</i>
Rutherford	43	64.8	140	210.3	104	155.9	93	138.7	<i>85</i>	<i>126.7</i>
Sampson	30	47.5	92	145.6	67	105.9	71	112.0	<i>54</i>	<i>85.2</i>
Scotland	11	31.1	60	170.6	58	167.1	54	155.3	<i>38</i>	<i>109.7</i>
Stanly	25	41.1	78	126.9	64	103.1	40	63.9	<i>33</i>	<i>52.2</i>
Stokes	15	32.7	70	153.1	75	165.0	63	138.1	<i>46</i>	<i>100.6</i>
Surry	32	44.4	126	174.7	112	155.6	80	111.5	<i>90</i>	<i>125.6</i>
Swain	9	63.4	57	399.5	57	399.7	93	649.8	<i>50</i>	<i>352.6</i>
Transylvania	10	29.9	88	260.3	74	216.5	67	195.5	<i>51</i>	<i>147.8</i>
Tyrrell	4	99.6	8	191.8	13	316.1	10	262.3	<i>4</i>	<i>106.0</i>
Union	49	21.6	131	56.6	113	47.8	138	57.5	<i>88</i>	<i>36.0</i>
Vance	10	22.4	83	187.0	98	219.1	70	156.7	<i>57</i>	<i>127.5</i>
Wake	292	27.8	1,241	115.7	1,181	108.1	996	89.5	<i>756</i>	<i>66.8</i>
Warren	6	30.2	23	116.0	20	100.9	18	91.4	<i>10</i>	<i>51.2</i>
Washington	4	33.1	7	58.6	6	50.9	28	240.7	<i>10</i>	<i>87.1</i>
Watauga	18	33.2	44	79.6	47	83.6	38	67.5	<i>39</i>	<i>69.1</i>
Wayne	31	24.9	126	102.3	166	134.4	260	209.8	<i>101</i>	<i>81.5</i>
Wilkes	78	113.7	195	284.8	139	203.0	141	206.5	<i>99</i>	<i>145.5</i>
Wilson	66	81.2	197	241.9	128	157.3	275	336.3	<i>79</i>	<i>96.4</i>
Yadkin	16	42.5	66	175.5	73	194.9	66	175.5	<i>55</i>	<i>146.2</i>
Yancey	12	68.2	55	310.6	57	318.6	48	265.8	<i>40</i>	<i>221.0</i>
Unassigned ^b	929	---	3,516	---	3,620	---	3,055	---	<i>2,062</i>	---
North Carolina	5,079	50.0	19,238	187.2	18,288	176.0	19,747	188.0	12,313	116.2

[^]Chronic hepatitis C surveillance started in North Carolina in October 2016 and is only reported from laboratories reporting electronically. These numbers are likely an underestimation. The number of chronic hepatitis C cases is given as “reported” rather than “newly diagnosed”; since surveillance for chronic hepatitis C is relatively new in North Carolina and our case records are incomplete, we are unable to determine whether a positive lab test reflects a new diagnosis or a new reported test result for a person who was previously diagnosed. Note: Concentrations in some counties may be due to increased availability to testing.

^{^^}Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. Data is italicized for this reason.

^aRates are expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

North Carolina State Totals and Rates for Hepatitis B and C by Selected Demographics, 2020

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Table 7. Number of Infants Diagnosed with Hepatitis B (Perinatal Hepatitis B) in North Carolina by Year of Diagnosis, 2011-2020*

2011	2012	2013	2014	2015	2016	2017	2018	2019	<i>2020*</i>
1	0	1	2	1	0	1	1	3	<i>0</i>

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

Data Source: Immunization Branch (data as of June 2021).

Table 8. Acute Hepatitis B Annual Rates in North Carolina by Selected Demographics, 2016-2020*

Demographics	2016		2017		2018		2019		2020*	
	Cases	Rate ^a								
Gender										
Men	102	2.1	107	2.1	150	3.0	120	2.3	78	1.5
Women	67	1.3	80	1.5	77	1.4	67	1.2	53	1.0
Age at Diagnosis										
Less than 13	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
13-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-19	1	0.1	0	0.0	4	0.6	0	0.0	0	0.0
20-24	15	2.1	6	0.9	7	1.0	9	1.3	2	0.3
25-29	7	1.0	8	1.1	11	1.5	6	0.8	7	1.0
30-34	12	1.9	16	2.4	12	1.8	13	1.9	7	1.0
35-39	34	5.3	35	5.4	38	5.8	26	3.9	21	3.2
40-44	25	3.9	38	6.0	31	4.9	33	5.1	27	4.1
45-49	24	3.5	24	3.4	46	6.6	33	4.8	25	3.7
50-54	22	3.2	29	4.2	26	3.8	27	4.0	17	2.5
55-59	15	2.2	10	1.5	18	2.6	13	1.8	13	1.8
60-64	9	1.5	10	1.6	17	2.6	9	1.4	2	0.3
65 and older	5	0.3	11	0.7	17	1.0	18	1.0	10	0.6
Race/Ethnicity										
American Indian/Alaska Native ^b	3	2.5	2	1.6	0	0.0	1	0.8	1	0.8
Asian/Pacific Islander ^b	1	0.3	2	0.6	1	0.3	3	0.8	1	0.3
Black/African American ^b	29	1.3	28	1.2	41	1.8	36	1.5	14	0.6
Hispanic/LatinX	3	0.3	3	0.3	7	0.7	6	0.6	7	0.7
White/Caucasian ^b	120	1.8	138	2.1	152	2.3	138	2.1	103	1.5
Multiple Race ^c	1	---	2	---	2	---	1	---	1	---
Unknown/Unspecified ^c	12	---	12	---	24	---	2	---	4	---
Exposure Category^d										
Heterosexual Contact ^e	84	---	95	---	123	---	91	---	55	---
IDU ^f	35	---	62	---	64	---	46	---	41	---
MSM ^f	2	---	4	---	3	---	11	---	2	---
Other Risk ^g	16	---	28	---	28	---	19	---	9	---
Unknown ^h	47	---	43	---	49	---	45	---	40	---
Total	169	1.7	187	1.8	227	2.2	187	1.8	131	1.2

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bNon-Hispanic/LatinX.

^cRates are not available due to the lack of overall population data for the multiple race and unknown/unspecified race/ethnicity groups.

^dPeople may report more than one risk, so totals may not add up to the case total in bold. Rates are not presented due to the lack of population data for the exposure groups.

^eHeterosexual risk is defined as a person reporting sexual contact with a partner of the opposite sex.

^fIDU = injection drug use; MSM = men who report sex with men.

^gOther risk includes health care exposure or contact with a positive hepatitis B individual.

^hUnknown is defined as individuals who did not report any risks (includes missing) for acquiring hepatitis B.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 9. Acute Hepatitis B Annual Rates in North Carolina by Gender, Age, and Year of Diagnosis, 2016-2020*

Gender	Age at Diagnosis (Year)	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a									
Men	Less than 13	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	13-14	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	1	1.0	0.3	0	0.0	0.0	2	1.3	0.6	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	20-24	9	8.8	2.4	4	3.7	1.1	4	2.7	1.1	6	5.0	1.7	<i>1</i>	<i>1.3</i>	<i>0.3</i>
	25-29	5	4.9	1.4	5	4.7	1.4	8	5.3	2.2	4	3.3	1.1	<i>3</i>	<i>3.8</i>	<i>0.8</i>
	30-34	4	3.9	1.3	7	6.5	2.2	4	2.7	1.2	9	7.5	2.7	<i>5</i>	<i>6.4</i>	<i>1.4</i>
	35-39	16	15.7	5.1	23	21.5	7.2	19	12.7	5.9	16	13.3	4.9	<i>12</i>	<i>15.4</i>	<i>3.7</i>
	40-44	15	14.7	4.8	21	19.6	6.8	21	14.0	6.8	21	17.5	6.7	<i>15</i>	<i>19.2</i>	<i>4.8</i>
	45-49	17	16.7	5.0	11	10.3	3.2	36	24.0	10.6	23	19.2	6.9	<i>13</i>	<i>16.7</i>	<i>4.0</i>
	50-54	15	14.7	4.5	19	17.8	5.7	18	12.0	5.4	17	14.2	5.2	<i>11</i>	<i>14.1</i>	<i>3.3</i>
	55-59	9	8.8	2.8	4	3.7	1.2	13	8.7	3.9	5	4.2	1.5	<i>9</i>	<i>11.5</i>	<i>2.7</i>
	60-64	6	5.9	2.1	7	6.5	2.4	14	9.3	4.6	6	5.0	1.9	<i>2</i>	<i>2.6</i>	<i>0.6</i>
	65 and older	5	4.9	0.7	6	5.6	0.8	11	7.3	1.5	13	10.8	1.7	<i>7</i>	<i>9.0</i>	<i>0.9</i>
Total		102	100.0	2.1	107	100.0	2.1	150	100.0	3.0	120	100.0	2.3	<i>78</i>	<i>100.0</i>	<i>1.5</i>
Women	Less than 13	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	13-14	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	0	0.0	0.0	0	0.0	0.0	2	2.6	0.6	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	20-24	6	9.0	1.8	2	2.5	0.6	3	3.9	0.9	3	4.5	0.9	<i>1</i>	<i>1.9</i>	<i>0.3</i>
	25-29	2	3.0	0.6	3	3.8	0.8	3	3.9	0.8	2	3.0	0.5	<i>4</i>	<i>7.5</i>	<i>1.1</i>
	30-34	8	11.9	2.4	9	11.3	2.7	8	10.4	2.4	4	6.0	1.1	<i>2</i>	<i>3.8</i>	<i>0.6</i>
	35-39	18	26.9	5.5	12	15.0	3.6	19	24.7	5.6	10	14.9	2.9	<i>9</i>	<i>17.0</i>	<i>2.6</i>
	40-44	10	14.9	3.0	17	21.3	5.2	10	13.0	3.1	12	17.9	3.6	<i>12</i>	<i>22.6</i>	<i>3.6</i>
	45-49	7	10.4	2.0	13	16.3	3.7	10	13.0	2.8	10	14.9	2.8	<i>12</i>	<i>22.6</i>	<i>3.5</i>
	50-54	7	10.4	2.0	10	12.5	2.8	8	10.4	2.3	10	14.9	2.9	<i>6</i>	<i>11.3</i>	<i>1.7</i>
	55-59	6	9.0	1.7	6	7.5	1.7	5	6.5	1.4	8	11.9	2.2	<i>4</i>	<i>7.5</i>	<i>1.1</i>
	60-64	3	4.5	0.9	3	3.8	0.9	3	3.9	0.9	3	4.5	0.9	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	65 and older	0	0.0	0.0	5	6.3	0.5	6	7.8	0.6	5	7.5	0.5	<i>3</i>	<i>5.7</i>	<i>0.3</i>
Total		67	100.0	1.3	80	100.0	1.5	77	100.0	1.4	67	100.0	1.2	<i>53</i>	<i>100.0</i>	<i>1.0</i>

Continued

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 9 (Continued). Acute Hepatitis B Annual Rates in North Carolina by Gender, Age, and Year of Diagnosis 2015-2019

Gender	Age at Diagnosis (Year)	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a									
Total	Less than 13	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	13-14	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	1	0.6	0.1	0	0.0	0.0	4	1.8	0.6	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	20-24	15	8.9	2.1	6	3.2	0.9	7	3.1	1.0	9	4.8	1.3	<i>2</i>	<i>1.5</i>	<i>0.3</i>
	25-29	7	4.1	1.0	8	4.3	1.1	11	4.8	1.5	6	3.2	0.8	<i>7</i>	<i>5.3</i>	<i>1.0</i>
	30-34	12	7.1	1.9	16	8.6	2.4	12	5.3	1.8	13	7.0	1.9	<i>7</i>	<i>5.3</i>	<i>1.0</i>
	35-39	34	20.1	5.3	35	18.7	5.4	38	16.7	5.8	26	13.9	3.9	<i>21</i>	<i>16.0</i>	<i>3.2</i>
	40-44	25	14.8	3.9	38	20.3	6.0	31	13.7	4.9	33	17.6	5.1	<i>27</i>	<i>20.6</i>	<i>4.1</i>
	45-49	24	14.2	3.5	24	12.8	3.4	46	20.3	6.6	33	17.6	4.8	<i>25</i>	<i>19.1</i>	<i>3.7</i>
	50-54	22	13.0	3.2	29	15.5	4.2	26	11.5	3.8	27	14.4	4.0	<i>17</i>	<i>13.0</i>	<i>2.5</i>
	55-59	15	8.9	2.2	10	5.3	1.5	18	7.9	2.6	13	7.0	1.8	<i>13</i>	<i>9.9</i>	<i>1.8</i>
	60-64	9	5.3	1.5	10	5.3	1.6	17	7.5	2.6	9	4.8	1.4	<i>2</i>	<i>1.5</i>	<i>0.3</i>
	65 and older	5	3.0	0.3	11	5.9	0.7	17	7.5	1.0	18	9.6	1.0	<i>10</i>	<i>7.6</i>	<i>0.6</i>
Total		169	100.0	1.7	187	100.0	1.8	227	100.0	2.2	187	100.0	1.8	<i>131</i>	<i>100.0</i>	<i>1.2</i>

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 10. Acute Hepatitis B Annual Rates in North Carolina by Gender, Race/Ethnicity, and Year of Diagnosis, 2016-2020*

Gender	Race/Ethnicity	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a									
Men	American Indian/Alaska Native ^b	1	1.0	1.7	1	0.9	1.7	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	Asian/Pacific Islander ^b	1	1.0	0.7	1	0.9	0.6	0	0.0	0.0	2	1.7	1.2	<i>1</i>	<i>1.3</i>	<i>0.6</i>
	Black/African American ^b	17	16.7	1.6	12	11.2	1.1	30	20.0	2.8	26	21.7	2.4	<i>7</i>	<i>9.0</i>	<i>0.6</i>
	Hispanic/LatinX	3	2.9	0.6	3	2.8	0.6	5	3.3	1.0	6	5.0	1.1	<i>3</i>	<i>3.8</i>	<i>0.6</i>
	White/Caucasian ^b	75	73.5	2.3	80	74.8	2.5	96	64.0	3.0	84	70.0	2.6	<i>65</i>	<i>83.3</i>	<i>2.0</i>
	Multiple Races ^c	1	1.0	---	2	1.9	---	1	0.7	---	1	0.8	---	<i>1</i>	<i>1.3</i>	<i>---</i>
	Unknown/Unspecified ^c	4	3.9	---	8	7.5	---	18	12.0	---	1	0.8	---	<i>1</i>	<i>1.3</i>	<i>---</i>
Total		102	100.0	2.1	107	100.0	2.1	150	100.0	3.0	120	100.0	2.3	<i>78</i>	<i>100.0</i>	<i>1.5</i>
Women	American Indian/Alaska Native ^b	2	3.0	3.2	1	1.3	1.6	0	0.0	0.0	1	1.5	1.6	<i>1</i>	<i>1.9</i>	<i>1.5</i>
	Asian/Pacific Islander ^b	0	0.0	0.0	1	1.3	0.6	1	1.3	0.6	1	1.5	0.5	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	Black/African American ^b	12	17.9	1.0	16	20.0	1.3	11	14.3	0.9	10	14.9	0.8	<i>7</i>	<i>13.2</i>	<i>0.6</i>
	Hispanic/LatinX	0	0.0	0.0	0	0.0	0.0	2	2.6	0.4	0	0.0	0.0	<i>4</i>	<i>7.5</i>	<i>0.8</i>
	White/Caucasian ^b	45	67.2	1.3	58	72.5	1.7	56	72.7	1.7	54	80.6	1.6	<i>38</i>	<i>71.7</i>	<i>1.1</i>
	Multiple Races ^c	0	0.0	---	0	0.0	---	1	1.3	---	0	0.0	---	<i>0</i>	<i>0.0</i>	<i>---</i>
	Unknown/Unspecified ^c	8	11.9	---	4	5.0	---	6	7.8	---	1	1.5	---	<i>3</i>	<i>5.7</i>	<i>---</i>
Total		67	100.0	1.3	80	100.0	1.5	77	100.0	1.4	67	100.0	1.2	<i>53</i>	<i>100.0</i>	<i>1.0</i>
Total	American Indian/Alaska Native ^b	3	1.8	2.5	2	1.1	1.6	0	0.0	0.0	1	0.5	0.8	<i>1</i>	<i>0.8</i>	<i>0.8</i>
	Asian/Pacific Islander ^b	1	0.6	0.3	2	1.1	0.6	1	0.4	0.3	3	1.6	0.8	<i>1</i>	<i>0.8</i>	<i>0.3</i>
	Black/African American ^b	29	17.2	1.3	28	15.0	1.2	41	18.1	1.8	36	19.3	1.5	<i>14</i>	<i>10.7</i>	<i>0.6</i>
	Hispanic/LatinX	3	1.8	0.3	3	1.6	0.3	7	3.1	0.7	6	3.2	0.6	<i>7</i>	<i>5.3</i>	<i>0.7</i>
	White/Caucasian ^b	120	71.0	1.8	138	73.8	2.1	152	67.0	2.3	138	73.8	2.1	<i>103</i>	<i>78.6</i>	<i>1.5</i>
	Multiple Races ^c	1	0.6	---	2	1.1	---	2	0.9	---	1	0.5	---	<i>1</i>	<i>0.8</i>	<i>---</i>
	Unknown/Unspecified ^c	12	7.1	---	12	6.4	---	24	10.6	---	2	1.1	---	<i>4</i>	<i>3.1</i>	<i>---</i>
Total		169	100.0	1.7	187	100.0	1.8	227	100.0	2.2	187	100.0	1.8	<i>131</i>	<i>100.0</i>	<i>1.2</i>

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bNon-Hispanic/LatinX.

^cRates are not available due to the lack of overall population data for the multiple race and unknown/unspecified race/ethnicity groups.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 11. Acute Hepatitis B Cases in North Carolina by Gender, Risk of Exposure^a, and Year of Diagnosis, 2016-2020*

Gender	Exposure Category	2016		2017		2018		2019		2020*	
		Cases	% ^a								
Men	Heterosexual ^b	45	44.1	51	47.7	81	54.0	59	49.2	32	41.0
	IDU ^c	22	21.6	41	38.3	38	25.3	31	25.8	26	33.3
	MSM ^c	2	2.0	4	3.7	3	2.0	11	9.2	2	2.6
	Other Risks ^d	6	5.9	13	12.1	12	8.0	10	8.3	6	7.7
	Unknown ^e	24	23.5	19	17.8	30	20.0	21	17.5	16	20.5
Women	Heterosexual ^b	39	58.2	44	55.0	42	54.5	32	47.8	23	43.4
	IDU ^c	13	19.4	21	26.3	26	33.8	15	22.4	15	28.3
	Other Risks ^d	10	14.9	15	14.6	16	11.7	9	13.4	3	5.7
	Unknown ^e	23	34.3	24	30.0	19	24.7	24	35.8	24	45.3
Total	Heterosexual ^b	84	49.7	95	50.8	123	54.2	91	48.7	55	42.0
	IDU ^c	35	20.7	62	33.2	64	28.2	46	24.6	41	31.3
	MSM ^c	2	1.2	4	2.1	3	1.3	11	5.9	2	1.5
	Other Risks ^d	16	9.5	28	15.0	28	12.3	19	10.2	9	6.9
	Unknown ^e	47	27.8	43	23.0	49	21.6	45	24.1	40	30.5
Total^a		169	100.0	187	100.0	227	100.0	187	100.0	131	100.0

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aPeople may report more than one risk, so totals may not add up to the case or percentage total in bold. Rates are not presented due to the lack of population data for the exposure groups.

^bHeterosexual risk is defined as a person reporting sexual contact with a partner of the opposite sex.

^cIDU = injection drug use; MSM = men who report sex with men.

^dOther risk includes health care exposure or contact with a positive hepatitis B individual.

^eUnknown is defined as individuals who did not report any risks for acquiring hepatitis B.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 12. Number of People Diagnosed with Chronic Hepatitis B, Presumed Alive, and Residing in North Carolina as of 12/31/2020*

Demographics	Men			Women			Total ⁱ		
	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a
Current Age (Year)									
Less than 13	15	0.1	1.8	11	0.1	1.4	26	0.1	1.6
13-14	11	0.1	7.9	14	0.1	10.6	25	0.1	9.2
15-19	54	0.3	15.4	51	0.5	15.1	105	0.4	15.2
20-24	149	0.9	40.8	112	1.1	32.8	261	1	36.9
25-29	317	2.0	85.7	296	2.8	81.7	615	2.3	84.0
30-34	750	4.8	216.3	667	6.4	186.2	1,418	5.4	201.1
35-39	1,020	6.5	314.0	1,104	10.6	323.7	2,128	8.1	319.6
40-44	1,493	9.5	472.9	1,328	12.7	396.5	2,829	10.8	434.8
45-49	1,722	10.9	525.4	1,454	13.9	419.2	3,184	12.1	472.0
50-54	1,866	11.8	561.9	1,321	12.6	377.2	3,200	12.2	469.0
55-59	2,120	13.4	628.3	1,056	10.1	288.4	3,184	12.1	452.5
60-64	1,948	12.3	617.7	867	8.3	244.1	2,826	10.7	421.5
65 and older	4,309	27.3	541.9	2,160	20.7	211.9	6,490	24.7	357.7
Missing ^b	5	0.0	--	3	0.0	--	8	0.0	--
Race/Ethnicity									
American Indian/Alaska Native ^c	85	0.5	142.6	33	0.3	51.0	118	0.4	94.9
Asian/Pacific Islander ^c	3,607	22.9	2,012.4	3,764	36.0	1,987.4	7,391	28.1	2,005.0
Black/African American ^c	5,321	33.7	485.5	2,913	27.9	233.4	8,254	31.4	352.1
Hispanic/LatinX	332	2.1	61.4	397	3.8	77.6	730	2.8	69.4
White/Caucasian ^c	4,642	29.4	141.6	2,235	21.4	65.1	6,897	26.2	102.8
Multiple Race ^b	399	2.5	--	352	3.4	--	751	2.9	--
Unknown/Unspecified ^b	1,393	8.8	--	750	7.2	--	2,158	8.2	--
Exposure Category^d									
Heterosexual Contact ^e	2,511	15.9	--	2,155	20.6	--	4,666	17.7	--
IDU ^f	371	2.4	--	159	1.5	--	530	2.0	--
MSM ^f	285	1.8	--	--	--	--	285	1.1	--
Other Risk ^g	171	1.1	--	121	1.2	--	292	1.1	--
Unknown ^h	12,803	81.1	--	8,199	78.5	--	21,078	80.1	--
Totalⁱ	15,779	100.0	306.2	10,444	100.0	191.7	26,299	100.0	248.1

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic.

^aRate is expressed per 100,000 population.

^bRates are not available due to the lack of overall population data for the missing age, multiple race and unknown/unspecified race/ethnicity groups.

^cNon-Hispanic/LatinX.

^dPeople may report more than one risk, so totals and percentages may not add up to the case total in bold. Rates are not presented due to the lack of population data for the exposure groups.

^eHeterosexual risk is defined as a person reporting sexual contact with a partner of the opposite sex.

^fIDU = injection drug use; MSM = men who report sex with men.

^gOther risk includes health care exposure or contact with a positive hepatitis B individual.

^hUnknown is defined as individuals who did not report any risks for acquiring hepatitis B.

ⁱTotals includes cases with missing gender.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 13. Newly Diagnosed Chronic Hepatitis B Annual Rates in North Carolina by Selected Demographics, 2016-2020*

Demographics	2016		2017		2018		2019		2020*	
	Cases	Rate ^a	Cases	Rate ^a						
Gender										
Men	862	17.4	702	14.0	710	14.0	727	14.2	476	9.2
Women	522	10.0	476	9.0	419	7.9	421	7.8	292	5.4
Age at Diagnosis										
Less than 13	9	0.5	4	0.2	3	0.2	4	0.2	1	0.1
13-14	8	3.1	2	0.8	4	1.5	1	0.4	0	0.0
15-19	34	5.0	17	2.5	14	2.0	14	2.0	3	0.4
20-24	76	10.8	46	6.6	49	7.0	41	5.8	24	3.4
25-29	111	15.9	92	12.8	103	14.1	86	11.7	50	6.8
30-34	159	24.6	135	20.6	114	17.2	128	18.7	80	11.3
35-39	204	31.7	185	28.4	152	23.1	157	23.7	86	12.9
40-44	201	31.2	141	22.1	135	21.2	144	22.4	94	14.4
45-49	135	19.6	124	17.8	130	18.7	133	19.3	88	13.0
50-54	122	17.6	104	15.1	110	16.2	96	14.2	96	14.1
55-59	111	16.3	111	16.1	80	11.5	116	16.5	81	11.5
60-64	83	13.5	80	12.7	84	13.0	87	13.2	56	8.4
65 and older	131	8.3	138	8.5	151	8.9	143	8.2	109	6.0
Race/Ethnicity										
American Indian/Alaska Native ^b	5	4.1	12	9.8	2	1.6	2	1.6	4	3.2
Asian/Pacific Islander ^b	403	128.8	288	87.4	249	72.9	302	85.0	143	38.8
Black/African American ^b	420	18.7	339	14.9	292	12.7	329	14.2	189	8.1
Hispanic/LatinX	30	3.2	23	2.4	40	4.0	33	3.2	26	2.5
White/Caucasian ^b	333	5.1	316	4.8	335	5.0	383	5.7	296	4.4
Multiple Race ^c	60	---	55	---	41	---	42	---	29	---
Unknown/Unspecified ^c	133	---	146	---	170	---	59	---	81	---
Exposure Category^d										
Heterosexual Contact ^e	479	---	408	---	436	---	397	---	208	---
IDU ^f	69	---	78	---	89	---	83	---	78	---
MSM ^f	28	---	25	---	17	---	24	---	13	---
Other Risk ^g	27	---	27	---	31	---	26	---	12	---
Unknown ^h	846	---	702	---	623	---	683	---	498	---
Totalⁱ	1,384	13.6	1,179	11.5	1,129	10.9	1,150	11.0	768	7.2

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bNon-Hispanic/LatinX.

^cRates are not available due to the lack of overall population data for the multiple race and unknown/unspecified race/ethnicity groups.

^dPeople may report more than one risk, so totals may not add up to the case total in bold. Rates are not presented due to the lack of population data for the exposure groups.

^eHeterosexual risk is defined as a person reporting sexual contact with a partner of the opposite sex.

^fIDU = injection drug use; MSM = men who report sex with men.

^gOther risk includes health care exposure or contact with a positive hepatitis B individual.

^hUnknown is defined as individuals who did not report any risks for acquiring hepatitis B.

ⁱTotals may include cases with missing gender information.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 14. Newly Diagnosed Chronic Hepatitis B Annual Rates in North Carolina by Gender, Age, and Year of Diagnosis, 2016-2020*

Gender	Age at Diagnosis (Year)	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a									
Men	Less than 13	5	0.6	0.6	2	0.3	0.2	3	0.4	0.4	2	0.3	0.2	<i>1</i>	<i>0.2</i>	<i>0.1</i>
	13-14	7	0.8	5.3	1	0.1	0.7	1	0.1	0.7	1	0.1	0.7	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	23	2.7	6.7	10	1.4	2.9	7	1.0	2.0	11	1.5	3.1	<i>2</i>	<i>0.4</i>	<i>0.6</i>
	20-24	35	4.1	9.5	20	2.8	5.5	24	3.4	6.6	19	2.6	5.2	<i>11</i>	<i>2.3</i>	<i>3.0</i>
	25-29	50	5.8	14.4	47	6.7	13.1	49	6.9	13.4	52	7.2	14.0	<i>26</i>	<i>5.5</i>	<i>7.0</i>
	30-34	95	11.0	29.9	71	10.1	22.1	60	8.5	18.4	72	9.9	21.4	<i>42</i>	<i>8.8</i>	<i>12.1</i>
	35-39	137	15.9	43.6	115	16.4	36.2	94	13.2	29.3	100	13.8	30.9	<i>60</i>	<i>12.6</i>	<i>18.5</i>
	40-44	146	16.9	46.4	92	13.1	29.6	104	14.6	33.6	95	13.1	30.5	<i>62</i>	<i>13.0</i>	<i>19.6</i>
	45-49	91	10.6	26.9	72	10.3	21.1	85	12.0	25.0	86	11.8	25.7	<i>61</i>	<i>12.8</i>	<i>18.6</i>
	50-54	75	8.7	22.3	73	10.4	21.9	75	10.6	22.6	62	8.5	18.8	<i>68</i>	<i>14.3</i>	<i>20.5</i>
	55-59	76	8.8	23.3	67	9.5	20.3	49	6.9	14.7	78	10.7	23.1	<i>54</i>	<i>11.3</i>	<i>16.0</i>
	60-64	44	5.1	15.3	50	7.1	16.9	60	8.5	19.8	62	8.5	20.1	<i>33</i>	<i>6.9</i>	<i>10.5</i>
	65 and older	78	9.0	11.4	82	11.7	11.5	99	13.9	13.4	87	12.0	11.3	<i>56</i>	<i>11.8</i>	<i>7.0</i>
	Total		862	100.0	17.4	702	100.0	14.0	710	100.0	14.0	727	100.0	14.2	<i>476</i>	<i>100.0</i>
Women	Less than 13	4	0.8	0.5	2	0.4	0.2	0	0.0	0.0	2	0.5	0.2	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	13-14	1	0.2	0.8	1	0.2	0.8	3	0.7	2.3	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	11	2.1	3.3	7	1.5	2.1	7	1.7	2.1	3	0.7	0.9	<i>1</i>	<i>0.3</i>	<i>0.3</i>
	20-24	41	7.9	12.1	26	5.5	7.7	25	6.0	7.4	22	5.2	6.5	<i>13</i>	<i>4.5</i>	<i>3.8</i>
	25-29	61	11.7	17.4	45	9.5	12.6	54	12.9	14.9	34	8.1	9.3	<i>24</i>	<i>8.2</i>	<i>6.6</i>
	30-34	64	12.3	19.5	64	13.4	19.2	54	12.9	16.0	56	13.3	16.1	<i>38</i>	<i>13.0</i>	<i>10.6</i>
	35-39	67	12.8	20.3	70	14.7	21.0	58	13.8	17.2	57	13.5	16.8	<i>26</i>	<i>8.9</i>	<i>7.6</i>
	40-44	55	10.5	16.7	48	10.1	14.7	31	7.4	9.5	49	11.6	14.8	<i>32</i>	<i>11.0</i>	<i>9.6</i>
	45-49	44	8.4	12.5	52	10.9	14.6	45	10.7	12.6	46	10.9	13.0	<i>27</i>	<i>9.2</i>	<i>7.8</i>
	50-54	47	9.0	13.2	31	6.5	8.8	35	8.4	10.0	34	8.1	9.8	<i>28</i>	<i>9.6</i>	<i>8.0</i>
	55-59	35	6.7	9.8	44	9.2	12.2	31	7.4	8.5	37	8.8	10.1	<i>27</i>	<i>9.2</i>	<i>7.4</i>
	60-64	39	7.5	11.9	30	6.3	8.9	24	5.7	7.0	25	5.9	7.2	<i>23</i>	<i>7.9</i>	<i>6.5</i>
	65 and older	53	10.2	6.0	56	11.8	6.1	52	12.4	5.5	56	13.3	5.7	<i>53</i>	<i>18.2</i>	<i>5.2</i>
	Total		522	100.0	10.0	476	100.0	9.0	419	100.0	7.9	421	100.0	7.8	<i>292</i>	<i>100.0</i>

Continued

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 14 (Continued). Newly Diagnosed Chronic Hepatitis B Annual Rates in North Carolina by Gender, Age, and Year of Diagnosis, 2016-2020*

Gender	Age at Diagnosis (Year)	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a									
Total^b	Less than 13	9	0.7	0.5	4	0.3	0.2	3	0.3	0.2	4	0.3	0.2	<i>1</i>	<i>0.1</i>	<i>0.1</i>
	13-14	8	0.6	3.1	2	0.2	0.8	4	0.4	1.5	1	0.1	0.4	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	34	2.5	5.0	17	1.4	2.5	14	1.2	2.0	14	1.2	2.0	<i>3</i>	<i>0.4</i>	<i>0.4</i>
	20-24	76	5.5	10.8	46	3.9	6.6	49	4.3	7.0	41	3.6	5.8	<i>24</i>	<i>3.1</i>	<i>3.4</i>
	25-29	111	8.0	15.9	92	7.8	12.8	103	9.1	14.1	86	7.5	11.7	<i>50</i>	<i>6.5</i>	<i>6.8</i>
	30-34	159	11.5	24.6	135	11.5	20.6	114	10.1	17.2	128	11.1	18.7	<i>80</i>	<i>10.4</i>	<i>11.3</i>
	35-39	204	14.7	31.7	185	15.7	28.4	152	13.5	23.1	157	13.7	23.7	<i>86</i>	<i>11.2</i>	<i>12.9</i>
	40-44	201	14.5	31.2	141	12.0	22.1	135	12.0	21.2	144	12.5	22.4	<i>94</i>	<i>12.2</i>	<i>14.4</i>
	45-49	135	9.8	19.6	124	10.5	17.8	130	11.5	18.7	133	11.6	19.3	<i>88</i>	<i>11.5</i>	<i>13.0</i>
	50-54	122	8.8	17.6	104	8.8	15.1	110	9.7	16.2	96	8.3	14.2	<i>96</i>	<i>12.5</i>	<i>14.1</i>
	55-59	111	8.0	16.3	111	9.4	16.1	80	7.1	11.5	116	10.1	16.5	<i>81</i>	<i>10.5</i>	<i>11.5</i>
	60-64	83	6.0	13.5	80	6.8	12.7	84	7.4	13.0	87	7.6	13.2	<i>56</i>	<i>7.3</i>	<i>8.4</i>
65 and older	131	9.5	8.3	138	11.7	8.5	151	13.4	8.9	143	12.4	8.2	<i>109</i>	<i>14.2</i>	<i>6.0</i>	
Total		1,384	100.0	13.6	1,179	100.0	11.5	1,129	100.0	10.9	1,150	100.0	11.0	<i>768</i>	<i>100.0</i>	<i>7.2</i>

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bTotals may include cases with missing gender information.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 15. Newly Diagnosed Chronic Hepatitis B Annual Rates in North Carolina by Gender, Race/Ethnicity, and Year of Diagnosis, 2016-2020*

Gender	Race/Ethnicity	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a
Men	American Indian/Alaska Native ^b	4	0.5	6.9	10	1.4	17.0	1	0.1	1.7	2	0.3	3.4	4	0.8	6.7
	Asian/Pacific Islander ^b	214	24.8	141.4	139	19.8	86.9	131	18.5	79.0	170	23.4	98.6	68	14.3	37.9
	Black/African American ^b	279	32.4	26.5	213	30.3	20.0	209	29.4	19.4	220	30.3	20.2	118	24.8	10.8
	Hispanic/LatinX	18	2.1	3.7	14	2.0	2.8	27	3.8	5.3	19	2.6	3.6	15	3.2	2.8
	White/Caucasian ^b	227	26.3	7.1	196	27.9	6.1	208	29.3	6.4	255	35.1	7.8	198	41.6	6.0
	Multiple Races ^c	39	4.5	---	28	4.0	---	24	3.4	---	23	3.2	---	19	4.0	---
	Unknown/Unspecified ^c	81	9.4	---	102	14.5	---	110	15.5	---	38	5.2	---	54	11.3	---
Total		862	100.0	17.4	702	100.0	14.0	710	100.0	14.0	727	100.0	14.2	476	100.0	9.2
Women	American Indian/Alaska Native ^b	1	0.2	1.6	2	0.4	3.2	1	0.2	1.6	0	0.0	0.0	0	0.0	0.0
	Asian/Pacific Islander ^b	189	36.2	116.9	148	31.1	87.2	118	28.2	67.1	132	31.4	72.2	75	25.7	39.6
	Black/African American ^b	141	27.0	11.8	126	26.5	10.4	83	19.8	6.8	108	25.7	8.7	71	24.3	5.7
	Hispanic/LatinX	12	2.3	2.7	9	1.9	1.9	13	3.1	2.7	14	3.3	2.8	11	3.8	2.1
	White/Caucasian ^b	106	20.3	3.2	120	25.2	3.6	127	30.3	3.7	127	30.2	3.7	98	33.6	2.9
	Multiple Races ^c	21	4.0	---	27	5.7	---	17	4.1	---	19	4.5	---	10	3.4	---
	Unknown/Unspecified ^c	52	10.0	---	44	9.2	---	60	14.3	---	21	5.0	---	27	9.2	---
Total		522	100.0	10.0	476	100.0	9.0	419	100.0	7.9	421	100.0	7.8	292	100.0	5.4
Total^d	American Indian/Alaska Native ^b	5	0.4	4.1	12	1.0	9.8	2	0.2	1.6	2	3.4	1.6	4	0.5	3.2
	Asian/Pacific Islander ^b	403	29.1	128.8	288	24.4	87.4	249	22.1	72.9	302	511.9	85.0	143	18.6	38.8
	Black/African American ^b	420	30.3	18.7	339	28.8	14.9	292	25.9	12.7	329	557.6	14.2	189	24.6	8.1
	Hispanic/LatinX	30	2.2	3.2	23	2.0	2.4	40	3.5	4.0	33	55.9	3.2	26	3.4	2.5
	White/Caucasian ^b	333	24.1	5.1	316	26.8	4.8	335	29.7	5.0	383	649.2	5.7	296	38.5	4.4
	Multiple Races ^c	60	4.3	---	55	4.7	---	41	3.6	---	42	71.2	---	29	3.8	---
	Unknown/Unspecified ^c	133	9.6	---	146	12.4	---	170	15.1	---	59	100.0	---	81	10.5	---
Total		1,384	100.0	13.6	1,179	100.0	11.5	1,129	100.0	10.9	1,150	100	11.0	768	100.0	7.2

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bNon-Hispanic/LatinX.

^cRates are not available due to the lack of overall population data for the multiple race and unknown/unspecified race/ethnicity groups.

^dTotals may include cases with missing gender information.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 16. Newly Diagnosed Chronic Hepatitis B Cases in North Carolina by Gender, Risk of Exposure^a, and Year of Diagnosis, 2016-2020*

Gender	Exposure Category	2016		2017		2018		2019		2020*	
		Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Men	Heterosexual ^b	281	32.6	225	32.1	258	36.3	230	31.6	<i>106</i>	<i>22.3</i>
	IDU ^c	44	5.1	58	8.3	61	8.6	55	7.6	<i>53</i>	<i>11.1</i>
	MSM ^c	28	3.2	25	3.6	17	2.4	24	3.3	<i>13</i>	<i>2.7</i>
	Other Risks ^d	14	1.6	21	3.0	20	2.8	13	1.8	<i>7</i>	<i>1.5</i>
	Unknown ^e	538	62.4	423	60.3	398	56.1	442	60.8	<i>324</i>	<i>68.1</i>
Women	Heterosexual ^b	198	37.9	183	38.4	181	43.2	167	39.7	<i>102</i>	<i>34.9</i>
	IDU ^c	25	4.8	20	4.2	28	6.7	28	6.7	<i>25</i>	<i>8.6</i>
	Other Risks ^d	13	2.5	6	1.3	11	2.6	13	3.1	<i>5</i>	<i>1.7</i>
	Unknown ^e	308	59.0	278	58.4	225	53.7	239	56.8	<i>174</i>	<i>59.6</i>
Total^f	Heterosexual ^b	479	34.6	408	34.6	439	38.9	397	34.5	<i>208</i>	<i>27.1</i>
	IDU ^c	69	5.0	78	6.6	89	7.9	83	7.2	<i>78</i>	<i>10.2</i>
	MSM ^c	28	2.0	25	2.1	17	1.5	24	2.1	<i>13</i>	<i>1.7</i>
	Other Risks ^d	27	2.0	27	2.3	31	2.7	26	2.3	<i>12</i>	<i>1.6</i>
	Unknown ^e	846	61.1	702	59.5	623	55.2	683	59.4	<i>498</i>	<i>64.8</i>
Total	1,384	100.0	1,179	100.0	1,129	100.0	1,150	100.0	768	100.0	

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aPeople may report more than one risk, so totals may not add up to the case total in bold. Rates are not presented due to the lack of population data for the exposure groups.

^bHeterosexual risk is defined as a person reporting sexual contact with a partner of the opposite sex.

^cIDU = injection drug use; MSM = men who report sex with men.

^dOther risk includes health care exposure or contact with a positive hepatitis B individual.

^eUnknown is defined as individuals who did not report any risks for acquiring hepatitis B.

^fTotals may include cases with missing gender information.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 17. Acute Hepatitis C Annual Rates in North Carolina by Selected Demographics, 2016[^]-2020*

Demographics	2016		2017		2018		2019		2020*	
	Cases	Rate ^a								
Gender										
Men	109	2.2	98	2.0	113	2.2	94	1.8	56	1.1
Women	94	1.8	92	1.7	85	1.6	91	1.7	44	0.8
Age at Diagnosis										
Less than 13	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
13-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-19	7	1.0	3	0.4	2	0.3	0	0.0	1	0.1
20-24	28	4.0	28	4.0	29	4.1	16	2.3	5	0.7
25-29	45	6.5	36	5.0	52	7.1	36	4.9	19	2.6
30-34	31	4.8	33	5.0	33	5.0	30	4.4	23	3.3
35-39	34	5.3	21	3.2	27	4.1	38	5.7	28	4.2
40-44	20	3.1	19	3.0	14	2.2	20	3.1	8	1.2
45-49	15	2.2	19	2.7	12	1.7	11	1.6	7	1.0
50-54	11	1.6	13	1.9	15	2.2	17	2.5	4	0.6
55-59	7	1.0	7	1.0	6	0.9	8	1.1	1	0.1
60-64	4	0.6	8	1.3	7	1.1	8	1.2	2	0.3
65 and older	1	0.1	3	0.2	1	0.1	1	0.1	2	0.1
Race/Ethnicity										
American Indian/Alaska Native ^b	9	7.4	9	7.4	12	9.8	8	6.5	2	1.6
Asian/Pacific Islander ^b	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0
Black/African American ^b	12	0.5	13	0.6	12	0.5	16	0.7	5	0.2
Hispanic/Latino	3	0.3	4	0.4	2	0.2	5	0.5	1	0.1
White/Caucasian ^b	171	2.6	146	2.2	150	2.3	152	2.3	89	1.3
Multiple Race ^c	1	---	1	---	4	---	1	---	0	---
Unknown/Unspecified ^c	7	---	16	---	18	---	3	---	3	---
Exposure Category^d										
Sexual Contact ^e	38	---	34	---	30	---	28	---	12	---
IDU ^f	88	---	87	---	96	---	85	---	54	---
Other Risk ^g	1	---	3	---	1	---	1	---	0	---
Unknown ^h	76	---	66	---	71	---	71	---	34	---
Totalⁱ	203	2.0	190	1.8	198	1.9	185	1.8	100	0.9

[^]Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bNon-Hispanic/Latino.

^cRates are not available due to the lack of overall population data for the multiple race and unknown/unspecified race/ethnicity groups.

^dRisk is based on a hierarchical risk. Rates are not presented due to the lack of population data for the exposure groups. It is likely that sexual contact (heterosexual or MSM), while true for the patient, is not the transmission route for the virus. These data likely reflect under-reporting of higher-risk exposures such as injecting drug use.

^eSexual contact includes heterosexual and men who report sex with men.

^fIDU = injection drug use.

^gOther risk includes health care exposure or contact with a positive hepatitis B individual.

^hUnknown is defined as individuals who did not report any risks (including missing) for acquiring hepatitis C.

ⁱTotal may include cases with missing gender.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 18. Acute Hepatitis C Annual Rates in North Carolina by Gender, Age, and Year of Diagnosis, 2016[^]-2020*

Gender	Age at Diagnosis (Year)	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a									
Men	Less than 13	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	13-14	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	4	3.7	1.2	1	1.0	0.3	2	1.8	0.6	0	0.0	0.0	<i>1</i>	<i>1.8</i>	<i>0.3</i>
	20-24	9	8.3	2.4	9	9.2	2.5	15	13.3	4.1	7	7.4	1.9	<i>3</i>	<i>5.4</i>	<i>0.8</i>
	25-29	29	26.6	8.3	18	18.4	5.0	33	29.2	9.0	21	22.3	5.7	<i>8</i>	<i>14.3</i>	<i>2.2</i>
	30-34	15	13.8	4.7	20	20.4	6.2	12	10.6	3.7	14	14.9	4.2	<i>12</i>	<i>21.4</i>	<i>3.5</i>
	35-39	20	18.3	6.4	14	14.3	4.4	17	15.0	5.3	15	16.0	4.6	<i>14</i>	<i>25.0</i>	<i>4.3</i>
	40-44	14	12.8	4.4	7	7.1	2.3	8	7.1	2.6	13	13.8	4.2	<i>7</i>	<i>12.5</i>	<i>2.2</i>
	45-49	7	6.4	2.1	10	10.2	2.9	6	5.3	1.8	4	4.3	1.2	<i>4</i>	<i>7.1</i>	<i>1.2</i>
	50-54	5	4.6	1.5	9	9.2	2.7	11	9.7	3.3	11	11.7	3.3	<i>3</i>	<i>5.4</i>	<i>0.9</i>
	55-59	5	4.6	1.5	2	2.0	0.6	4	3.5	1.2	5	5.3	1.5	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	60-64	1	0.9	0.3	6	6.1	2.0	4	3.5	1.3	3	3.2	1.0	<i>2</i>	<i>3.6</i>	<i>0.6</i>
	65 and older	0	0.0	0.0	2	2.0	0.3	1	0.9	0.1	1	1.1	0.1	<i>2</i>	<i>3.6</i>	<i>0.3</i>
Total		109	100.0	2.2	98	100.0	2.0	113	100.0	2.2	94	100.0	1.8	<i>56</i>	<i>100.0</i>	<i>1.1</i>
Women	Less than 13	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	13-14	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	3	3.2	0.9	2	2.2	0.6	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	20-24	19	20.2	5.6	19	20.7	5.6	14	16.5	4.1	9	9.9	2.7	<i>2</i>	<i>4.5</i>	<i>0.6</i>
	25-29	16	17.0	4.6	18	19.6	5.0	19	22.4	5.2	15	16.5	4.1	<i>11</i>	<i>25.0</i>	<i>3.0</i>
	30-34	16	17.0	4.9	13	14.1	3.9	21	24.7	6.2	16	17.6	4.6	<i>11</i>	<i>25.0</i>	<i>3.1</i>
	35-39	14	14.9	4.2	7	7.6	2.1	10	11.8	3.0	23	25.3	6.8	<i>14</i>	<i>31.8</i>	<i>4.1</i>
	40-44	6	6.4	1.8	12	13.0	3.7	6	7.1	1.8	7	7.7	2.1	<i>1</i>	<i>2.3</i>	<i>0.3</i>
	45-49	8	8.5	2.3	9	9.8	2.5	6	7.1	1.7	7	7.7	2.0	<i>3</i>	<i>6.8</i>	<i>0.9</i>
	50-54	6	6.4	1.7	4	4.3	1.1	4	4.7	1.1	6	6.6	1.7	<i>1</i>	<i>2.3</i>	<i>0.3</i>
	55-59	2	2.1	0.6	5	5.4	1.4	2	2.4	0.6	3	3.3	0.8	<i>1</i>	<i>2.3</i>	<i>0.3</i>
	60-64	3	3.2	0.9	2	2.2	0.6	3	3.5	0.9	5	5.5	1.4	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	65 and older	1	1.1	0.1	1	1.1	0.1	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
Total		94	100.0	1.8	92	100.0	1.7	85	100.0	1.6	91	100.0	1.7	<i>44</i>	<i>100.0</i>	<i>0.8</i>

Continued

[^]Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 18 (Continued). Acute Hepatitis C Annual Rates in North Carolina by Gender, Age, and Year of Diagnosis, 2016[^]-2020*

Gender	Age at Diagnosis (Year)	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a												
Total^b	Less than 13	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	13-14	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	<i>0</i>	<i>0.0</i>	<i>0.0</i>
	15-19	7	3.4	1.0	3	1.6	0.4	2	1.0	0.3	0	0.0	0.0	<i>1</i>	<i>1.0</i>	<i>0.1</i>
	20-24	28	13.8	4.0	28	14.7	4.0	29	14.6	4.1	16	8.6	2.3	<i>5</i>	<i>5.0</i>	<i>0.7</i>
	25-29	45	22.2	6.5	36	18.9	5.0	52	26.3	7.1	36	19.5	4.9	<i>19</i>	<i>19.0</i>	<i>2.6</i>
	30-34	31	15.3	4.8	33	17.4	5.0	33	16.7	5.0	30	16.2	4.4	<i>23</i>	<i>23.0</i>	<i>3.3</i>
	35-39	34	16.7	5.3	21	11.1	3.2	27	13.6	4.1	38	20.5	5.7	<i>28</i>	<i>28.0</i>	<i>4.2</i>
	40-44	20	9.9	3.1	19	10.0	3.0	14	7.1	2.2	20	10.8	3.1	<i>8</i>	<i>8.0</i>	<i>1.2</i>
	45-49	15	7.4	2.2	19	10.0	2.7	12	6.1	1.7	11	5.9	1.6	<i>7</i>	<i>7.0</i>	<i>1.0</i>
	50-54	11	5.4	1.6	13	6.8	1.9	15	7.6	2.2	17	9.2	2.5	<i>4</i>	<i>4.0</i>	<i>0.6</i>
	55-59	7	3.4	1.0	7	3.7	1.0	6	3.0	0.9	8	4.3	1.1	<i>1</i>	<i>1.0</i>	<i>0.1</i>
	60-64	4	2.0	0.6	8	4.2	1.3	7	3.5	1.1	8	4.3	1.2	<i>2</i>	<i>2.0</i>	<i>0.3</i>
	65 and older	1	0.5	0.1	3	1.6	0.2	1	0.5	0.1	1	0.5	0.1	<i>2</i>	<i>2.0</i>	<i>0.1</i>
Total^b		203	100.0	2.0	190	100.0	1.8	198	100.0	1.9	185	100.0	1.8	100	100.0	0.9

[^]Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bTotal may include cases with missing gender.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 19. Acute Hepatitis C Annual Rates in North Carolina by Gender, Race/Ethnicity, and Year of Diagnosis, 2016[^]-2020*

Gender	Race/Ethnicity	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a												
Men	American Indian/Alaska Native ^b	5	4.6	8.6	5	5.1	8.5	6	5.3	10.2	4	4.3	6.7	2	3.6	3.4
	Asian/Pacific Islander ^b	0	0.0	0.0	1	1.0	0.6	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
	Black/African American ^b	2	1.8	0.2	9	9.2	0.8	6	5.3	0.6	11	11.7	1.0	4	7.1	0.4
	Hispanic/LatinX	3	2.8	0.6	3	3.1	0.6	2	1.8	0.4	3	3.2	0.6	1	1.8	0.2
	White/Caucasian ^b	95	87.2	3.0	70	71.4	2.2	83	73.5	2.6	74	78.7	2.3	48	85.7	1.5
	Multiple Races ^c	0	0.0	---	0	0.0	---	3	2.7	---	1	1.1	---	0	0.0	---
	Unknown/Unspecified ^c	4	3.7	---	10	10.2	---	13	11.5	---	1	1.1	---	1	1.8	---
Total		109	100.0	2.2	98	100.0	2.0	113	100.0	2.2	94	100.0	1.8	56	100.0	1.1
Women	American Indian/Alaska Native ^b	4	4.3	6.4	4	4.3	6.3	6	7.1	9.4	4	4.4	6.2	0	0.0	0.0
	Asian/Pacific Islander ^b	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
	Black/African American ^b	10	10.6	0.8	4	4.3	0.3	6	7.1	0.5	5	5.5	0.4	1	2.3	0.1
	Hispanic/LatinX	0	0.0	0.0	1	1.1	0.2	0	0.0	0.0	2	2.2	0.4	0	0.0	0.0
	White/Caucasian ^b	76	80.9	2.3	76	82.6	2.3	67	78.8	2.0	78	85.7	2.3	41	93.2	1.2
	Multiple Races ^c	1	1.1	---	1	1.1	---	1	1.2	---	0	0.0	---	0	0.0	---
	Unknown/Unspecified ^c	3	3.2	---	6	6.5	---	5	5.9	---	2	2.2	---	2	4.5	---
Total		94	100.0	1.8	92	100.0	1.7	85	100.0	1.6	91	100.0	1.7	44	100.0	0.8
Total^d	American Indian/Alaska Native ^b	9	4.4	7.4	9	4.7	7.4	12	6.1	9.8	8	4.3	6.5	2	2.0	1.6
	Asian/Pacific Islander ^b	0	0.0	0.0	1	0.5	0.3	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
	Black/African American ^b	12	5.9	0.5	13	6.8	0.6	12	6.1	0.5	16	8.6	0.7	5	5.0	0.2
	Hispanic/LatinX	3	1.5	0.3	4	2.1	0.4	2	1.0	0.2	5	2.7	0.5	1	1.0	0.1
	White/Caucasian ^b	171	84.2	2.6	146	76.8	2.2	150	75.8	2.3	152	82.2	2.3	89	89.0	1.3
	Multiple Races ^c	1	0.5	---	1	0.5	---	4	2.0	---	1	0.5	---	0	0.0	---
	Unknown/Unspecified ^c	7	3.4	---	16	8.4	---	18	9.1	---	3	1.6	---	3	3.0	---
Total^d		203	100.0	2.0	190	100.0	1.8	198	100.0	1.9	185	100.0	1.8	100	100.0	0.9

[^]Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bNon-Hispanic/LatinX.

^cRates are not available due to the lack of overall population data for the multiple race and unknown/unspecified race/ethnicity groups.

^dTotal may include cases with missing gender.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 20. Acute Hepatitis C Cases in North Carolina by Gender, Risk of Exposure^a, and Year of Diagnosis, 2016[^]-2020*

Gender	Exposure Category	2016		2017		2018		2019		2020*	
		Cases	%								
Men	Sexual ^b	17	15.6	15	15.3	11	9.7	15	16.0	<i>10</i>	<i>17.9</i>
	IDU ^c	50	45.9	45	45.9	56	49.6	40	42.6	26	46.4
	Other Risks ^d	0	0.0	0	0.0	0	0.0	1	1.1	0	0.0
	Unknown ^e	42	38.5	38	38.8	46	40.7	38	40.4	20	35.7
	Total	109	100.0	98	100.0	113	100.0	94	100.0	56	100.0
Women	Sexual ^b	21	22.3	19	20.7	19	22.4	13	14.3	2	4.5
	IDU ^c	38	40.4	42	45.7	40	47.1	45	49.5	28	63.6
	Other Risks ^d	1	1.1	3	3.3	1	1.2	0	0.0	0	0.0
	Unknown ^e	34	36.2	28	30.4	25	29.4	33	36.3	14	31.8
	Total	94	100.0	92	100.0	85	100.0	91	100.0	44	100.0
Total^f	Sexual ^b	38	18.7	34	17.9	30	15.2	28	15.1	12	12.0
	IDU ^c	88	43.3	87	45.8	96	48.5	85	45.9	54	54.0
	Other Risks ^d	1	0.5	3	1.6	1	0.5	1	0.5	0	0.0
	Unknown ^e	76	37.4	66	34.7	71	35.9	71	38.4	34	34.0
	Total^f	203	100.0	190	100.0	198	100.0	185	100.0	100	100.0

[^]Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRisk is based on a hierarchical risk. Rates are not presented due to the lack of population data for the exposure groups. It is likely that sexual contact (heterosexual or MSM), while true for the patient, is not the transmission route for the virus. These data likely reflect under-reporting of higher-risk exposures such as injecting drug use.

^bSexual contact includes heterosexual and men who report sex with men.

^cIDU = injection drug use.

^dOther risk includes health care exposure or contact with a positive hepatitis B individual.

^eUnknown is defined as individuals who did not report any risks (including missing) for acquiring hepatitis C.

^fTotal may include cases with missing gender, and race/ethnicity information.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 21. Number of Newly Reported Chronic Hepatitis C^a Living in North Carolina and Presumed Alive by Selected Demographics, as of 12/31/2020*

Demographics	Men			Women			Total ^d		
	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a
Age at Report (Year)									
Less than 13	57	0.1	6.8	87	0.3	10.9	144	0.2	8.8
13-14	4	0.0	2.9	6	0.0	4.5	10	0.0	3.7
15-19	276	0.6	78.7	503	1.7	148.6	781	1.1	113.3
20-24	1,823	4.3	499.4	2,271	7.6	664.3	4,099	5.6	579.8
25-29	4,400	10.3	1,190.2	4,098	13.8	1,131.7	8,516	11.7	1,163.7
30-34	4,521	10.6	1,303.6	3,810	12.8	1,063.6	8,347	11.5	1,184.0
35-39	3,942	9.2	1,213.6	2,786	9.4	816.8	6,745	9.3	1,012.9
40-44	2,875	6.7	910.7	2,030	6.8	606.0	4,919	6.8	756.0
45-49	2,993	7.0	913.2	2,007	6.8	578.7	5,004	6.9	741.8
50-54	4,439	10.4	1,336.7	2,738	9.2	781.7	7,186	9.9	1,053.1
55-59	6,376	14.9	1,889.8	3,471	11.7	947.9	9,868	13.6	1,402.5
60-64	5,888	13.8	1,867.2	2,963	10.0	834.3	8,863	12.2	1,321.8
65 and older	5,007	11.7	629.6	2,879	9.7	282.4	7,901	10.9	435.4
Unknown ^b	114	0.3	---	42	0.1	---	169	0.2	---
Race/Ethnicity									
American Indian/Alaska Native ^c	299	0.7	501.8	263	0.9	406.2	566	0.8	455.2
Asian/Pacific Islander ^c	97	0.2	54.1	95	0.3	50.2	193	0.3	52.4
Black/African American ^c	5,745	13.4	524.2	3,757	12.7	301.0	9,509	13.1	405.6
Hispanic/LatinX	417	1.0	77.1	290	1.0	56.7	708	1.0	67.3
White/Caucasian ^c	12,593	29.5	384.3	10,385	35.0	302.4	23,005	31.7	342.8
Multiple Race ^b	479	1.1	---	405	1.4	---	889	1.2	---
Unknown/Unspecified ^b	23,085	54.0	---	14,496	48.8	---	37,682	51.9	---
Total^d	42,715	100.0	829.0	29,691	100.0	545.0	72,552	100.0	684.4

^aChronic hepatitis C became reportable in North Carolina in late-2016. Labs are only reportable by electronic lab reporting. These numbers are likely an underestimation. Risk of exposure data is not collected for chronic hepatitis C cases, as these cases are not investigated at this time. Newly diagnosed hepatitis C is also not available at this time. The case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bRates are not available due to the lack of overall population data for the unknown age, multiple race, and unknown/unspecified race/ethnicity groups.

^cNon-Hispanic/LatinX.

^dTotal may include cases with missing gender.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 22. Newly Reported Chronic Hepatitis C[^] Annual Rates in North Carolina by Selected Demographics, 2016^{^^}-2020*

Demographics	2016		2017		2018		2019		2020*	
	Cases	Rate ^a	Cases	Rate ^a	Cases	Rate ^a	Cases	Rate ^a	<i>Cases</i>	<i>Rate^a</i>
Gender										
Men	2,993	60.5	11,415	228.3	10,900	215.6	11,373	222.7	<i>7,514</i>	<i>145.8</i>
Women	2,078	39.8	7,806	148.8	7,325	137.3	8,315	154.2	<i>4,795</i>	<i>88.8</i>
Missing	8	--	17	--	63	--	59	--	<i>4</i>	<i>--</i>
Age at Diagnosis										
Less than 13	4	0.2	31	1.9	38	2.3	38	2.3	<i>33</i>	<i>2.0</i>
13-14	0	0.0	5	1.9	1	0.4	2	0.7	<i>2</i>	<i>0.7</i>
15-19	38	5.6	125	18.4	115	16.7	433	62.7	<i>73</i>	<i>10.6</i>
20-24	315	44.6	1,168	167.0	934	133.5	1,206	171.8	<i>534</i>	<i>75.5</i>
25-29	559	80.1	2,268	316.5	2,115	290.1	2,314	314.6	<i>1,355</i>	<i>185.2</i>
30-34	488	75.5	1,961	299.8	2,047	308.0	2,312	338.1	<i>1,645</i>	<i>233.3</i>
35-39	378	58.7	1,551	238.0	1,634	248.1	1,979	298.5	<i>1,276</i>	<i>191.6</i>
40-44	271	42.1	1,109	174.0	1,109	174.0	1,485	231.4	<i>1,014</i>	<i>155.8</i>
45-49	400	57.9	1,334	191.4	1,262	181.1	1,305	189.5	<i>836</i>	<i>123.9</i>
50-54	654	94.3	2,307	335.8	1,839	270.3	1,659	245.6	<i>987</i>	<i>144.6</i>
55-59	862	126.3	2,961	429.7	2,700	388.1	2,339	332.5	<i>1,421</i>	<i>202.0</i>
60-64	668	108.5	2,593	410.3	2,409	372.5	2,260	343.2	<i>1,402</i>	<i>209.1</i>
65 and older	439	28.0	1,801	110.6	2,029	120.1	2,342	133.7	<i>1,694</i>	<i>93.4</i>
Race/Ethnicity										
American Indian/Alaska Native ^b	35	28.8	98	80.2	145	117.9	225	181.8	<i>97</i>	<i>78.0</i>
Asian/Pacific Islander ^b	15	4.8	33	10.0	36	10.5	70	19.7	<i>44</i>	<i>11.9</i>
Black/African American ^b	773	34.4	2,014	88.6	2,122	92.3	3,764	162.0	<i>952</i>	<i>40.6</i>
Hispanic/LatinX	35	3.8	114	11.9	126	12.7	337	32.9	<i>119</i>	<i>11.3</i>
White/Caucasian ^b	1,831	27.9	5,338	81.0	6,049	91.2	6,773	101.5	<i>3,221</i>	<i>48.0</i>
Multiple Race ^c	89	---	241	---	206	---	265	---	<i>117</i>	<i>---</i>
Unknown/Unspecified ^c	2,301	---	11,400	---	9,604	---	8,313	---	<i>7,763</i>	<i>---</i>
Total^d	5,079	50.0	19,238	187.2	18,288	176.0	19,474	188.0	<i>12,313</i>	<i>116.2</i>

[^]Chronic hepatitis C became reportable in North Carolina in late-2016. Labs are only reportable by electronic lab reporting. These numbers are likely an underestimation. Risk of exposure data is not collected for chronic hepatitis C cases, as these cases are not investigated at this time. Newly diagnosed hepatitis C is also not available at this time.

^{^^}Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bRates are not available due to the lack of overall population data for the unknown age, multiple race, and unknown/unspecified race/ethnicity groups.

^cNon-Hispanic/LatinX.

^dTotal may include cases with missing gender.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 23. Newly Reported Chronic Hepatitis C[^] Annual Rates in North Carolina by Gender, Age, and Year of Report, 2016^{^^}-2020*

Gender	Age at Diagnosis (Year)	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a
Men	Less than 13	2	0.1	0.2	7	0.1	0.8	16	0.1	1.9	13	0.1	1.6	19	0.3	2.3
	13-14	0	0.0	0.0	2	0.0	1.5	0	0.0	0.0	1	0.0	0.7	1	0.0	0.7
	15-19	8	0.3	2.3	45	0.4	13.0	47	0.4	13.5	153	1.3	43.5	25	0.3	7.1
	20-24	142	4.7	38.6	494	4.3	136.0	429	3.9	118.6	535	4.7	147.3	255	3.4	69.8
	25-29	253	8.5	72.7	1,155	10.1	322.2	1,095	10.0	298.8	1,196	10.5	322.1	751	10.0	203.1
	30-34	266	8.9	83.8	1,074	9.4	334.0	1,053	9.7	322.3	1,270	11.2	378.2	931	12.4	268.5
	35-39	210	7.0	66.8	920	8.1	289.5	970	8.9	302.0	1,136	10.0	351.2	755	10.0	232.4
	40-44	159	5.3	50.5	665	5.8	214.0	636	5.8	205.3	842	7.4	270.5	617	8.2	195.4
	45-49	243	8.1	71.9	810	7.1	237.5	767	7.0	225.5	767	6.7	228.8	496	6.6	151.3
	50-54	415	13.9	123.2	1,423	12.5	426.0	1,172	10.8	353.7	977	8.6	296.8	622	8.3	187.3
	55-59	573	19.1	175.5	1,941	17.0	588.9	1,735	15.9	521.4	1,491	13.1	442.4	930	12.4	275.6
	60-64	452	15.1	156.9	1,740	15.2	587.8	1,630	15.0	537.3	1,464	12.9	473.5	962	12.8	305.1
	65 and older	267	8.9	39.0	1,125	9.9	158.1	1,309	12.0	177.0	1,485	13.1	193.5	1,121	14.9	141.0
Missing	3	0.1	---	14	0.1	---	41	0.2	---	43	0.2	---	29	0.2	---	
Total		2,993	100.0	60.5	11,415	100.0	228.3	10,900	100.0	215.6	11,373	100.0	222.7	7,514	100.0	145.8
Women	Less than 13	2	0.1	0.2	24	0.3	3.0	22	0.3	2.7	25	0.3	3.1	14	0.3	1.7
	13-14	0	0.0	0.0	3	0.0	2.3	1	0.0	0.8	1	0.0	0.8	1	0.0	0.8
	15-19	30	1.4	9.0	79	1.0	23.6	67	0.9	19.8	280	3.4	82.7	48	1.0	14.2
	20-24	172	8.3	50.8	673	8.6	200.1	504	6.9	149.3	669	8.0	197.6	279	5.8	81.6
	25-29	304	14.6	86.9	1,110	14.2	310.0	1,014	13.8	279.7	1,111	13.4	305.1	604	12.6	166.8
	30-34	221	10.6	67.2	887	11.4	266.6	983	13.4	291.0	1,038	12.5	298.2	714	14.9	199.3
	35-39	167	8.0	50.7	629	8.1	188.4	657	9.0	194.7	837	10.1	246.5	520	10.8	152.5
	40-44	110	5.3	33.4	443	5.7	135.6	467	6.4	142.6	638	7.7	193.1	397	8.3	118.5
	45-49	157	7.6	44.6	523	6.7	146.9	494	6.7	138.4	536	6.4	151.7	340	7.1	98.0
	50-54	239	11.5	67.0	882	11.3	249.8	664	9.1	190.3	678	8.2	195.8	365	7.6	104.2
	55-59	289	13.9	81.2	1,018	13.0	283.2	952	13.0	262.3	841	10.1	229.6	491	10.2	134.1
	60-64	216	10.4	65.9	852	10.9	253.5	772	10.5	224.8	790	9.5	226.2	440	9.2	123.9
	65 and older	171	8.2	19.3	676	8.7	73.8	717	9.8	75.5	851	10.2	86.4	573	11.9	56.2
Missing	0	0	---	7	0	---	11	0.1	---	20	0.1	---	9	0.1	---	
Total		2,078	100.0	39.8	7,806	100.0	148.0	7,325	100.0	137.3	8,315	100.0	154.2	4,795	100.0	88.0

Continued

[^]Chronic hepatitis C became reportable in North Carolina in late-2016. Labs are only reportable by electronic lab reporting. These numbers are likely an underestimation. Risk of exposure data is not collected for chronic hepatitis C cases, as these cases are not investigated at this time. Newly diagnosed hepatitis C is also not available at this time.

^{^^}Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers. / Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 23(Continued). Newly Reported Chronic Hepatitis C Annual Rates in North Carolina by Gender, Age, and Year of Report 2016^{^^}-2020*

Gender	Age at Diagnosis (Year)	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a
Total^b	Less than 13	4	0.1	0.2	31	0.2	1.9	38	0.2	2.3	38	0.2	2.3	33	0.3	2.0
	13-14	0	0.0	0.0	5	0.0	1.9	1	0.0	0.4	2	0.0	0.7	2	0.0	0.7
	15-19	38	0.7	5.6	125	0.6	18.4	115	0.6	16.7	433	2.2	62.7	73	0.6	10.6
	20-24	315	6.2	44.6	1,168	6.1	167.0	934	5.1	133.5	1,206	6.1	171.8	534	4.3	75.5
	25-29	559	11.0	80.1	2,268	11.8	316.5	2,115	11.6	290.1	2,314	11.7	314.6	1,355	11.0	185.2
	30-34	488	9.6	75.5	1,961	10.2	299.8	2,047	11.2	308.0	2,312	11.7	338.1	1,645	13.4	233.3
	35-39	378	7.4	58.7	1,551	8.1	238.0	1,634	8.9	248.1	1,979	10.0	298.5	1,276	10.4	191.6
	40-44	271	5.3	42.1	1,109	5.8	174.0	1,109	6.1	174.0	1,485	7.5	231.4	1,014	8.2	155.8
	45-49	400	7.9	57.9	1,334	6.9	191.4	1,262	6.9	181.1	1,305	6.6	189.5	836	6.8	123.9
	50-54	654	12.9	94.3	2,307	12.0	335.8	1,839	10.1	270.3	1,659	8.4	245.6	987	8.0	144.6
	55-59	862	17.0	126.3	2,961	15.4	429.7	2,700	14.8	388.1	2,339	11.8	332.5	1,421	11.5	202.0
	60-64	668	13.2	108.5	2,593	13.5	410.3	2,409	13.2	372.5	2,260	11.4	343.2	1,402	11.4	209.1
	65 and older	439	8.6	28.0	1,801	9.4	110.6	2,029	11.1	120.1	2,342	11.9	133.7	1,694	13.8	93.4
	Missing	3	0.1	---	24	0.1	---	56	0.3	---	73	0.4	---	41	0.3	---
	Total^b		5,079	100.0	50.0	19,238	100.0	187.2	18,288	100.0	176.0	19,747	100.0	188.0	12,313	100.0

[^]Chronic hepatitis C became reportable in North Carolina in late-2016. Labs are only reportable by electronic lab reporting. These numbers are likely an underestimation. Risk of exposure data is not collected for chronic hepatitis C cases, as these cases are not investigated at this time. Newly diagnosed hepatitis C is also not available at this time.

^{^^}Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bTotal may include cases with missing gender.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

Table 24. Newly Reported Chronic Hepatitis C Annual Rates in North Carolina by Gender, Race/Ethnicity, and Year of Report, 2016^{^^}-2020*

Gender	Race/Ethnicity	2016			2017			2018			2019			2020*		
		Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a	Cases	%	Rate ^a
Men	American Indian/Alaska Native ^b	23	0.8	39.4	57	0.5	97.0	75	0.7	127.0	121	1.1	203.8	51	0.7	85.6
	Asian/Pacific Islander ^b	12	0.4	7.9	21	0.2	13.1	17	0.2	10.3	36	0.3	20.9	15	0.2	8.4
	Black/African American ^b	511	17.1	48.6	1,359	11.9	127.8	1,373	12.6	127.6	1,982	17.4	182.3	609	8.1	55.6
	Hispanic/LatinX	28	0.9	5.8	65	0.6	13.1	85	0.8	16.6	181	1.6	34.3	73	1.0	13.5
	White/Caucasian ^b	1,037	34.6	32.4	2,877	25.2	89.3	3,325	30.5	102.6	3,689	32.4	113.1	1,807	24.0	55.1
	Multiple Races ^c	52	1.7	---	132	1.2	---	114	1.0	---	136	1.2	---	65	0.9	---
	Unknown/Unspecified ^c	1,330	44.4	---	6,904	60.5	---	5,911	54.2	---	5,228	46.0	---	4,894	65.1	---
Total		2,993	100.0	60.5	11,415	100.0	228.3	10,900	100.0	215.6	11,373	100.0	222.7	7,514	100.0	145.8
Women	American Indian/Alaska Native ^b	12	0.6	19.1	41	0.5	64.6	69	0.9	107.9	101	1.2	156.9	46	1.0	71.0
	Asian/Pacific Islander ^b	3	0.1	1.9	12	0.2	7.1	19	0.3	10.8	33	0.4	18.0	29	0.6	15.3
	Black/African American ^b	262	12.6	21.9	654	8.4	54.1	748	10.2	61.2	1,777	21.4	143.7	343	7.2	27.5
	Hispanic/LatinX	7	0.3	1.6	49	0.6	10.6	41	0.6	8.5	156	1.9	31.4	45	0.9	8.8
	White/Caucasian ^b	792	38.1	23.6	2,458	31.5	72.9	2,714	37.1	80.0	3,072	36.9	90.0	1,414	29.5	41.2
	Multiple Races ^c	37	1.8	---	109	1.4	---	91	1.2	---	126	1.5	---	51	1.1	---
	Unknown/Unspecified ^c	965	46.4	---	4,483	57.4	---	3,643	49.7	---	3,050	36.7	---	2,867	59.8	---
Total		2,078	100.0	39.8	7,806	100.0	148.0	7,325	100.0	137.3	8,315	100.0	154.2	4,795	100.0	88.0
Total^d	American Indian/Alaska Native ^b	35	0.7	28.8	98	0.5	80.2	145	0.8	117.9	225	1.1	181.8	97	0.8	78.0
	Asian/Pacific Islander ^b	15	0.3	4.8	33	0.2	10.0	36	0.2	10.5	70	0.4	19.7	44	0.4	11.9
	Black/African American ^b	773	15.2	34.4	2,014	10.5	88.6	2,122	11.6	92.3	3,764	19.1	162.0	952	7.7	40.6
	Hispanic/LatinX	35	0.7	3.8	114	0.6	11.9	126	0.7	12.7	337	1.7	32.9	119	1.0	11.3
	White/Caucasian ^b	1,831	36.1	27.9	5,338	27.7	81.0	6,049	33.1	91.2	6,773	34.3	101.5	3,221	26.2	48.0
	Multiple Races ^c	89	1.8	---	241	1.3	---	206	1.1	---	265	1.3	---	117	1.0	---
	Unknown/Unspecified ^c	2,301	45.3	---	11,400	59.3	---	9,604	52.5	---	8,313	42.1	---	7,763	63.0	---
Total^d		5,079	100.0	50.0	19,238	100.0	187.2	18,288	100.0	176.0	19,747	100.0	188.0	12,313	100.0	116.2

^aChronic hepatitis C became reportable in North Carolina in late-2016. Labs are only reportable by electronic lab reporting. These numbers are likely an underestimation. Risk of exposure data is not collected for chronic hepatitis C cases, as these cases are not investigated at this time. Newly diagnosed hepatitis C is also not available at this time.

^{^^}Case definition of hepatitis C changed in 2016 and 2020. Please see [Appendix A: Technical Notes](#) for information.

*2020 data should be treated with caution due to reduced availability of testing caused by the COVID-19 pandemic. 2020 data is italicized for this reason.

^aRate is expressed per 100,000 population.

^bNon-Hispanic/Latino.

^cRates are not available due to the lack of overall population data for the multiple race and unknown/unspecified race/ethnicity groups.

^dTotal may include cases with missing gender, and race/ethnicity information.

Please use caution when interpreting reported numbers less than 10 and the corresponding rates based on these numbers.

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 1, 2021).

APPENDIX A: Technical Notes

Readers should be aware that acute hepatitis B and C, and chronic hepatitis B data are all presented by date of diagnosis rather than date of report. Chronic hepatitis C data are presented by date of report. Please see the individual surveillance disease notes below for more information.

About the Authors

North Carolina law requires that diagnoses of certain communicable diseases, including STDs, be reported to local health departments that in turn report the information to the state. The HIV/STD/Hepatitis Surveillance Unit is the designated recipient for STD and viral hepatitis B (HBV) and hepatitis C (HCV) morbidity reports at the state level. From these reports, the HIV/STD/Hepatitis Surveillance Unit is responsible for aggregating these reports and providing county, regional, and statewide information about STDs and viral HBV and HCV to others, including the CDC. The HIV/STD/Hepatitis Surveillance Unit is part of the Communicable Disease Branch within the North Carolina Division of Public Health.

About the Content of This Report

This document, the *2018 North Carolina Hepatitis B and C Surveillance Report*, includes summary tables of surveillance reports and other information for HBV (acute, chronic, and perinatal), and HCV (acute and chronic). In some instances, total numbers of reports may not agree between separate cross-tabulations due to missing values for some variables.

Rates are presented for several categories of race/ethnicity, age group, and gender for each disease. Rates are also presented for counties across the state and are expressed as cases per 100,000 population. Rate denominators were calculated using the available bridged-race population estimates for 2018 from the National Center for Health Statistics. More information about bridged-race categories is available at the website http://www.cdc.gov/nchs/nvss/bridged_race.htm.

Rates that are based on a small number of cases (generally fewer than 10) should be viewed with caution and are considered unreliable because these rates have large standard errors and can vary widely with small changes in case numbers. Data is suppressed in this document according to the North Carolina Division of Public Health Communicable Disease Branch data release guidelines, which were updated in March 2018. These data are suppressed for table cells with a population denominator less than 500.

Hepatitis B Surveillance Data

Acute HBV case reports are people who have a confirmed acute illness with discrete onset of symptoms, jaundice or elevated serum aminotransferase levels (>100 IU/L), and either a positive IgM antibody to HBV core antigen (anti-HBc) or HBV surface antigen (HBsAg).¹⁰ Chronic HBV case reports are people who do not have discrete onset of symptoms with either a single HBsAg, HBV DNA, or HBV e antigen (HBeAg) positive lab (probable) or negative anti-HBc and a positive HBsAg, HBeAg, or HBV DNA.¹¹ Perinatal HBV are classified as children born to HBV-infected mothers who are ≤24 months of age and have one or more of the following: positive HBsAg (only if at least four weeks after last dose of HBV vaccine), positive HBeAg, or detectable HBV DNA.¹²

Hepatitis C Surveillance Data

Acute HCV case reports are people who have a confirmed acute illness with discrete onset of symptoms, jaundice or elevated serum aminotransferase levels, and meet the laboratory criteria of: serum alanine aminotransferase levels greater than seven times the upper limit of normal and IgM anti-hepatitis A negative, and IgM anti-HBc negative or HBsAg negative, and antibody to hepatitis C (anti-HCV) positive by EIA, verified by an additional assay (like a nucleic acid test for HCV RNA) or anti-HCV positive with a signal cut-off ratio predictive of a true positive as determined for the particular assay.¹³

2016 Hepatitis C Case Definition

In 2016, the case definition for acute HCV was updated. Clinical criteria for acute HCV include a discrete onset of symptoms and jaundice or a peak elevated serum aminotransferase level >200 IU/L during the period of acute illness, and the laboratory criteria for diagnosis includes a positive test for antibodies for anti-HCV (probable) or a HCV detection test (nucleic acid test or positive test indicating the presence of hepatitis C viral antigen) (confirmed). Therefore, starting in 2016, both confirmed cases and probable cases are reported as acute HCV cases. A confirmed case meets the clinical criteria and positive hepatitis C detection test, or a documented negative HCV antibody, HCV antigen, or NAT laboratory test followed within 12 months by a positive result. A probable case meets the clinical criteria, has a positive anti-HCV test, but no reports of a positive HCV NAT or antigen test and does not have a test conversion within the past 12 months.¹³ Chronic HCV case reports are people who do not have discrete onset of symptoms

¹⁰ Centers for Disease Control and Prevention. (2015). Guidelines for viral hepatitis surveillance and case management. Updated May 31, 2015. Accessed July 13, 2017. Retrieved from <https://www.cdc.gov/hepatitis/statistics/surveillanceguidelines.htm>.

¹¹ Centers for Disease Control and Prevention (2012). National Notifiable Disease Surveillance System (NNDSS): Hepatitis B, chronic 2012 case definition. <https://wwwn.cdc.gov/nndss/conditions/hepatitis-b-chronic/case-definition/2012/>.

¹² Centers for Disease Control and Prevention (2017). National Notifiable Disease Surveillance System (NNDSS): Hepatitis B, perinatal infection 2017 case definition. <https://wwwn.cdc.gov/nndss/conditions/hepatitis-b-perinatal-virus-infection/case-definition/2017/>.

¹³ Centers for Disease Control and Prevention. (2017). National Notifiable Disease Surveillance System (NNDSS): Hepatitis C, Acute 2016 Case Definition. Retrieved from <https://wwwn.cdc.gov/nndss/conditions/hepatitis-c-acute/case-definition/2016/>.

and are either positive anti-HCV (probable) or positive HCV RNA, HCV genotype, or have the presence of HCV antigen (confirmed).¹⁴

2020 Hepatitis C Case Definition

In 2020, the HCV case definition changed again, in order to account for asymptomatic cases. The new 2020 case definitions of acute and chronic HCV are outlined below.

Acute HCV

Clinical criteria should only include cases over the age of 36 months, and must have one of the following¹⁵:

- Jaundice; OR
- Peak elevated total bilirubin levels ≥ 3.0 mg/dL; OR
- Peak elevated serum alanin aminotransferase (ALT) levels >200 IU/L; AND
- The absence of a more likely diagnosis.

Laboratory criteria for acute HCV include¹⁵:

Confirmed

- Positive HCV virus detection: nucleic acid test (NAT) for HCV RNA (including qualitative, quantitative, or genotype); OR
- A positive test indicating presence of HCV viral antigens.

Probable

- A positive anti-HCV test (antibodies for HCV)

Chronic HCV

Clinical criteria is not available for chronic HCV. Only laboratory criteria is used to classify chronic HCV. Chronic HCV should only include cases over the age of 36 months, and must have one of the following laboratory criteria¹⁶:

Confirmed

- Positive HCV virus detection: nucleic acid test (NAT) for HCV RNA (including qualitative, quantitative, or genotype); OR
- A positive test indicating presence of HCV viral antigens.

Probable

- A positive anti-HCV test (antibodies for HCV)

¹⁴ Centers for Disease Control and Prevention. (2017). National Notifiable Disease Surveillance System (NNDSS): Hepatitis C, Chronic 2016 Case Definition. Retrieved from <https://wwwn.cdc.gov/nndss/conditions/hepatitis-c-chronic/case-definition/2016/>.

¹⁵ Centers for Disease Control and Prevention. (2021). National Notifiable Disease Surveillance System (NNDSS): Hepatitis C, Acute 2020 Case Definition. Retrieved from <https://ndc.services.cdc.gov/case-definitions/hepatitis-c-acute-2020/>.

¹⁶ Centers for Disease Control and Prevention. (2021). National Notifiable Disease Surveillance System (NNDSS): Hepatitis C, Chronic 2020 Case Definition. Retrieved from <https://ndc.services.cdc.gov/case-definitions/hepatitis-c-chronic-2020/>.

Chronic HCV surveillance started in North Carolina in late 2016. These numbers are likely an underestimation, as chronic HCV is only reportable by electronic lab reporting. Risk of exposure data is not collected for chronic HCV cases, as these cases are not investigated at this time.

Reports are summarized by the **date of diagnosis** not **date of report** for both acute, chronic, and perinatal hepatitis B and acute hepatitis C. Reports for chronic hepatitis C are summarized by the **date of report**, not **date of diagnosis**; since reporting for chronic hepatitis C is new and therefore incomplete, we cannot identify whether a report reflects a new diagnosis or a new laboratory test on a previously diagnosed person.