2020 Hepatitis B & Hepatitis C Surveillance Report

State of Louisiana
Department of Health
Office of Public Health

LOUISIANA DEPARTMENT OF HEALTH

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History of Hepatitis Surveillance and Office of Public Health STD/HIV/Hepatitis Program Overview

The History of Hepatitis Surveillance in Louisiana

The Louisiana Office of Public Health (OPH) has collected surveillance data for hepatitis B since 1987 and for hepatitis C since 1990. Surveillance for hepatitis B and C has historically been passive with few financial resources available to either. Advancements in hepatitis medical care and treatment have resulted in additional resources directed to hepatitis B and C prevention and surveillance activities. Louisiana's Infectious Disease Epidemiology Program (ID EPI) maintained surveillance for both hepatitis B and C until 2018 when it was recognized that statewide initiatives would benefit from the infrastructure already in place for HIV and STD surveillance, and a decision was made to transfer surveillance for hepatitis B and C to what is now known as the STD/HIV/Hepatitis Program (SHHP). The transition of hepatitis B and C surveillance from ID EPI to SHHP began in late 2018 and was completed in early 2020.

The History of the STD/HIV/Hepatitis Program Offices

The STD Control Program has been in existence for many years to screen and treat people infected with a sexually transmitted disease, primarily syphilis, gonorrhea, and chlamydia in Louisiana. The STD Control Program staff located in the central office are responsible for collaborating with regional staff and community partners to ensure that STD screenings, treatment, and partner services are provided, as well as conduct surveillance and implement outbreak response initiatives and other special projects.

The Louisiana State University Health Sciences Center (LSUHSC) HIV Program Office was established in 1992 under the LSU School of Medicine, Department of Preventive Medicine. Simultaneously, the Louisiana Department of Health and Hospitals (DHH) was also addressing HIV public health issues through the Office of Public Health (OPH) HIV/AIDS Services. Noting that there were two State agencies addressing the HIV epidemic, LSU and OPH came together as the Department of Health and Hospitals (DHH) Office of Public Health (OPH) HIV/AIDS Program (HAP) in 1998.

In December 2010, the STD Control Program and the HIV/AIDS Program merged to become the STD/HIV Program (SHP). Beginning in 2018, SHP assumed many activities related to viral hepatitis prevention and surveillance, and became the STD/HIV/Hepatitis Program (SHHP).

About the Current STD/HIV/Hepatitis Program

The STD/HIV/Hepatitis Program administers statewide and regional programs designed to prevent the transmission of STDs, HIV, and hepatitis B and C to ensure the availability of quality medical and social services for those diagnosed with an STD, HIV, or viral hepatitis and to track the impact of the STD, HIV, and viral hepatitis epidemics in Louisiana.

VISION

The STD/HIV/Hepatitis Program administers statewide and regional programs designed to prevent the transmission of STDs, HIV, and hepatitis B and C to ensure the availability of quality medical and social services for those diagnosed with an STD, HIV, or viral hepatitis and to track the impact of the STD, HIV, and viral hepatitis epidemics in Louisiana.

MISSION

Our mission is to end the impacts of HIV, STI, and hepatitis by eliminating related health inequities and stigma for all communities in Louisiana.

About this Report

The *2020 Hepatitis B & Hepatitis C Surveillance Report* provides a thorough surveillance profile of the hepatitis B and hepatitis C epidemics in Louisiana.

For More Information:

SHHP maintains two websites: https://ldh.la.gov/page/919 and www.louisianahealthhub.org.

Executive Summary

Louisiana experiences high rates of viral hepatitis and its citizens suffer the health related consequences of these acute and chronic infections. Driven by both hepatitis B and C, Louisiana had the third highest rate (10.7 per 100,000 population) of liver and bile duct cancers in the United States behind the District of Columbia and Texas. Louisiana ranked fourth for the death rate (8.3 per 100,000 population) from liver and bile duct cancers in 2018.[1] Additionally, injection drug use among people with opioid addiction is increasing, similar to trends observed across the nation.[2] Over a third of Louisiana's population is on Medicaid and nearly 27,000 people are incarcerated under state or federal jurisdiction. A large number of people on Medicaid and in the state correctional system are known to have untreated hepatitis C. Recognizing the significant impact that viral hepatitis, especially hepatitis C, has on the people of Louisiana, an initiative to eliminate hepatitis C as a public health threat was implemented in 2019.

Understanding the populations most affected by hepatitis B and C in the state is critical to implementing programs to prevent morbidity and mortality from these diseases and achieving elimination. The following report provides detailed information regarding demographic and risk characteristics of individuals diagnosed with hepatitis B and C and trends in the epidemics over time. This report includes data for people diagnosed through 2020. Some of the more significant trends are highlighted below:

Chapter 1 - Hepatitis B (HBV) in Louisiana

Acute HBV Diagnoses

- In 2020, there were 37 cases of acute hepatitis B reported for a rate of 0.8 per 100,000 population, a likely undercount as many people were unable to access care due to the COVID-19 pandemic. Taking into account underreporting, acute hepatitis B infections likely affect close to 500 people in Louisiana each year (estimated rate 10.4 per 100,000 population).
- Of reported acute hepatitis B diagnoses in 2020, 54% were male and 46% were female. The reported rate for males was 0.9 per 100,000 population and 0.7 per 100,000 population for females.
- In 2020, 70% of reported acute HBV diagnoses were among White people and 27% were among Black people. The rate for reported cases was 1.0 per 100,000 for White people and 0.7 per 100,000 for Black people.
- The majority of reported acute HBV diagnoses in 2020 (57%) were between the ages of 30-49 years, and 19% of acute HBV diagnoses were between the ages of 50-59 years.
- In 2020, the majority of acute HBV diagnoses were residents of the Baton Rouge (22%), New Orleans (16%), Monroe (16%), and Hammond/Slidell (16%) regions.

Chronic HBV Diagnoses

- There have been no significant changes in the populations affected by chronic hepatitis B over the past 10 years. From 2011-2020, more males than females have been diagnosed (58% compared to 42%), and Black and Asian people were disproportionately affected. The majority of reported chronic hepatitis B diagnoses occurred in people age 30-59 years old (63%). People diagnosed with chronic hepatitis B primarily lived in the New Orleans (30%), Baton Rouge (17%), Lafayette (11%), and Hammond/Slidell (10%) regions.

Chapter 2 - Hepatitis C (HCV) in Louisiana

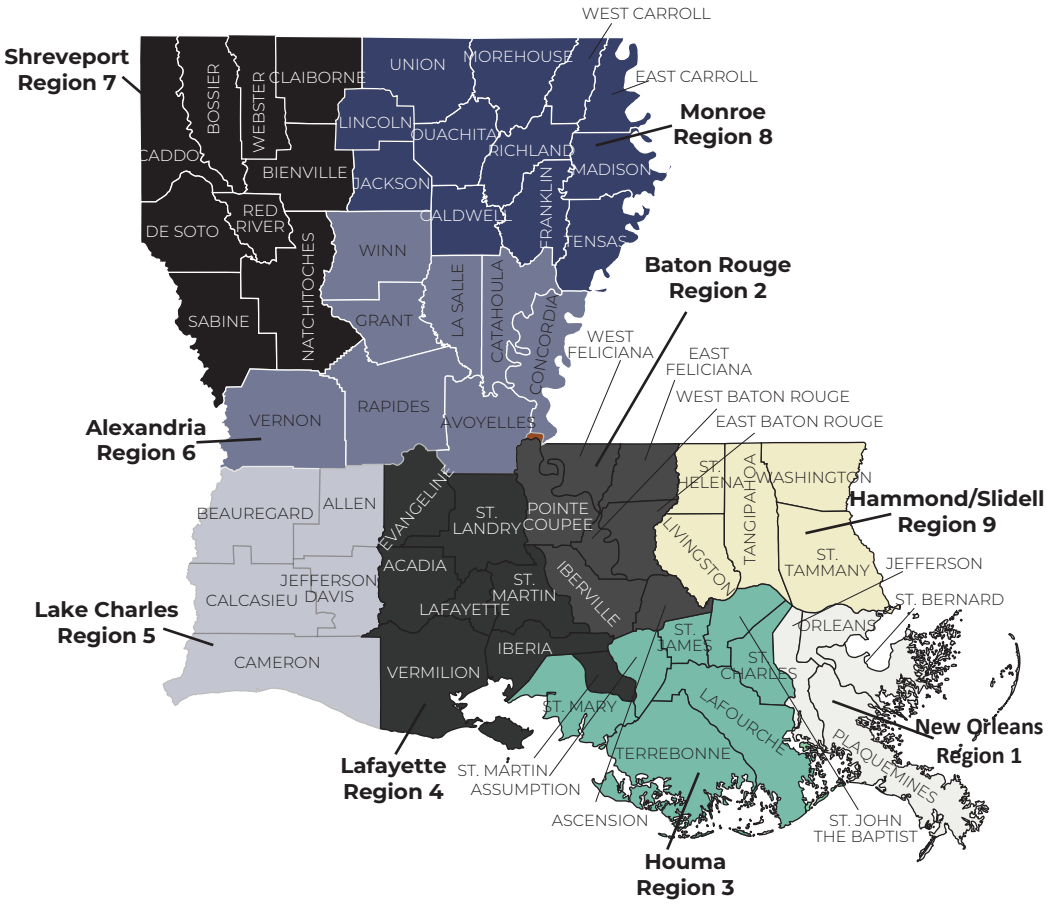
Acute HCV Diagnoses

- In 2020, there were 286 diagnoses of acute hepatitis C reported for a rate of 6.2 per 100,000 population.
- Of people reported with acute HCV in 2020, 61% were male and 39% were female.
- The majority of reported acute HCV diagnoses in 2020 were among White people (62%), and 30% were among Black people.
- In 2020, 56% of reported diagnoses were 18-39 years old, and 13% were 60 years and older. Over the last 10 years, an average of 72% of diagnoses were 18-39 years old.
- In 2020, the majority of acute HCV diagnoses were residents of the New Orleans region (28%), followed by the Baton Rouge (20%), and Hammond/Slidell (16%) regions.
- The most common risk factor identified for people diagnosed with acute hepatitis C from 2016-2020 was injection drug use.
- In 2020, diagnoses of acute hepatitis C with recent or ongoing injection drug use were highest in males (62%), White people (84%), and people age 18-39 years old (85%).

Chronic HCV Diagnoses

- Prior to the disruption of the COVID-19 pandemic, there were large numbers of people newly reported with chronic hepatitis C in Louisiana, likely due to increased incidence, enhanced case reporting, and increased awareness and screening. From 2015-2019, there were an average of 9,573 people newly diagnosed with chronic HCV each year. In 2020, there were 4,903 chronic hepatitis C diagnoses reported.
- The percentage of diagnoses in people 18-39 years old has increased over the last 10 years. In 2005, 22% of newly reported chronic HCV diagnoses were among people 18-39 years old, while Baby Boomers (born 1945-1965) accounted for 70% of diagnoses. In 2020, people 18-39 years old accounted for 34% of chronic HCV diagnoses, while Baby Boomers accounted for 38% of diagnoses.
- From 2011-2020, diagnoses of chronic hepatitis C in people 18-39 years old were reported in more males than females (56% compared to 44% respectively). The majority of reported chronic HCV diagnoses occurred in White people (76%), 19% in Black people, and 3% of diagnoses occurred in Hispanic/Latinx people. Among new diagnoses of chronic HCV, the majority lived in the New Orleans (26%), Hammond/Slidell (19%), and Baton Rouge (18%) regions.
- From 2011-2020, Baby Boomers diagnosed with chronic hepatitis C were primarily male (68% male compared to 32% female). Of diagnoses in Baby Boomers, 49% were among Black people and 47% were among White people. Baby Boomers diagnosed with chronic hepatitis C primarily lived in the New Orleans (27%), Baton Rouge (18%), Hammond/Slidell (12%), and Shreveport (10%) regions.

Geographic Guide to Louisiana's Public Health Regions and Metro Areas



Louisiana's Population

Parishes in Public Health Region	Parishes in MSA	
Region 1: New Orleans	Jefferson, Orleans, Plaquemines, St. Bernard	Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Tammany
Region 2: Baton Rouge	Ascension, E. Baton Rouge, E. Feliciana, Iberville, Pointe Coupee, W. Baton Rouge, W. Feliciana	Ascension, E. Baton Rouge, E. Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, W. Baton Rouge, W. Feliciana
Region 3: Houma	Assumption, Lafourche, St. Charles, St. James, St. John the Baptist, St. Mary, Terrebonne	Lafourche, Terrebonne
Region 4: Lafayette	Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, Vermillion	Acadia, Iberia, Lafayette, St. Martin, Vermillion
Region 5: Lake Charles	Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis	Calcasieu, Cameron
Region 6: Alexandria	Avoyelles, Catahoula, Concordia, Grant, La Salle, Rapides, Vernon, Winn	Grant, Rapides
Region 7: Shreveport	Bienville, Bossier, Caddo, Claiborne, DeSoto, Natchitoches, Red River, Sabine, Webster	Bossier, Caddo, DeSoto, Webster
Region 8: Monroe	Caldwell, E. Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Richland, Tensas, Union, W. Carroll	Ouachita, Union
Region 9: Hammond/ Slidell	Livingston, St. Helena, St. Tammany, Tangipahoa, Washington	Tangipahoa

Louisiana's Population and Healthcare Environment

Louisiana's Population

In the 2020 census, the total population of Louisiana was 4,657,757 people. Louisiana is made up of 64 county-equivalent subdivisions called parishes. In 2020, parish populations ranged from a low of 4,147 people (Tensas Parish) to a high of 456,781 people (East Baton Rouge Parish).[3] While the state is considered rural, 84% of the population resides in urban areas.[4] The state has nine public health regions and nine metropolitan statistical areas (MSAs). The largest MSA is the New Orleans Metro Area (1,271,845) followed by the Baton Rouge Metro Area (849,530). The Lafayette MSA has the third largest population in the state; 478,384.

Demographic Composition

According to the 2020 census data, the racial and ethnic composition of the state was estimated to be 56% White, non-Hispanic, 31% Black, non-Hispanic, 2% Asian, and <1% American Indian. People of Hispanic origin make up an additional 7% of the total population.[4]

Age and Sex

In 2020, the census estimates that people under the age of 18 made up 23% of the population while people 65 and older made up 16% of the population. As in previous years, the estimated proportion of females in the overall population in 2020 was slightly higher than that of males (51% vs. 49%). In 2020, the median age in Louisiana is 38 years.[4]

Education, Income, Poverty, Homelessness and Unemployment

An estimated 85% of Louisiana residents aged 25 years and older had attained a high school degree or higher, compared to 88% nationally. Additionally, 24% of Louisiana adults had a bachelor's degree or higher compared to 32% nationally. The estimated median household income in Louisiana was $49,469 for 2020 compared to $62,843 nationally. Moreover, an estimated 18% of Louisiana's population was living below the poverty level, compared to 11% of the national population.[4] Louisiana has one of the highest proportions of children living in poverty, with an estimated 27% of all children 18 years or younger living in households with an income below the federally defined poverty level in 2019 compared to the national estimate of 17% of all US children.[4] An estimated 3,173 people experience homelessness on any one night.[5] During 2020, the average unemployment rate in Louisiana was 8.4%.[6]

Incarceration/Crime

In 2020, the property crime rate in Louisiana was approximately 47% higher than the national property crime rate and the violent crime rate was 60% higher than the national violent crime rate.[7] In 2019, Louisiana's incarceration rate was 1st among all 50 states with 680 incarcerated adults per 100,000, significantly higher than the national rate of 419 incarcerated adults per 100,000.[8] As of December 31, 2020, the Louisiana prison population was 26,964 people under federal or state correctional authority, of which 66% were Black and 34% were White.[9]

Health Indicators

In the 2020 United Health Foundation's *America's Health Rankings* report, Louisiana ranked 50th out of 50 in overall health. This national health survey compares multiple health outcomes and health determinants in all states. The low-place ranking is predominately due to the state having a high percentage of adults who smoke, high percentage of children in poverty, high rates of obesity, high percentage of mental distress, high rates of premature death, and high infant mortality rates.[10]

Public Aid

In 2020, Medicaid covered 41% of all people living in Louisiana, and Medicare covered 19%.[11,12] Medicaid expenditures in Louisiana totaled over $12.5 billion in the 2020 fiscal year.[13] In 2019, 52% of children ages 0-18 were insured through Medicaid, while 9% of the population was considered to be uninsured.[14]

Drug Use

Louisiana's residents experience increasingly negative impacts from the opioid epidemic as well as other drug use. In 2019, Louisiana ranked 16th in the United States for drug overdose deaths with a rate of 28.3 per 100,000,[15] and in 2020, Louisiana ranked 8th in the United states for drug over dose deaths with a rate of 42.7 per 100,000 population.[16]

Contextualizing Disparities, Drug Use, and Stigma

The rise in opioid use in the United States has greatly increased the risk of transmission and outbreaks of viral hepatitis which has been shown to disproportionately affect vulnerable populations. Analyzing data to identify subpopulations most affected by a disease may lead to conclusions that place blame on the people affected rather than the social and economic factors that contribute to the environment in which they live that make people more vulnerable to acquiring these diseases. Discrimination and stigmatized systems have long been associated with worse health outcomes, yet blame is often placed on the people themselves instead of the systems in which they exist.

Racial and ethnic groups, subpopulations based on location, and/or those that engage in certain behaviors can often be used to describe people at risk, but these groupings are generally more social than biological. Analyzing disease data by one-dimensional categories such as these ignores that the people encompassed within each category span a wide range of historical and cultural backgrounds. The social determinants of health among populations are complex, and, as such, health statistics should always be contextualized when examined.

The populations most at risk for acquiring viral hepatitis tend to be those who inject and/or use drugs, incarcerated populations, people experiencing homelessness and/or poverty – all of which are social and economic factors and not biological.[17] Minority populations experience a disproportionate burden of morbidity and mortality from viral hepatitis.[18] Effective efforts to prevent spread of diseases like viral hepatitis are through screening, testing, and appropriate linkage to health services. However, when it comes to successfully implementing interventions to treat people affected and reduce the risk of acquiring disease, it can be difficult to engage with people who inject and/or use drugs, incarcerated populations, and people experiencing homelessness, and/or poverty due to barriers (e.g. lack of housing, transportation, non-stigmatizing healthcare and harm reduction) that limit access to healthcare that prevent successful engagement in interventions. Consequently, these populations do not achieve similar health outcomes obtained by others with better access to services and healthcare.

In many settings, people who inject drugs (PWID) face multi-leveled barriers of accessing health and social services, some of which can be attributed to unique health conditions and environmental challenges and some can be attributed to current legal and public health approaches to drug use. Though the implementation of syringe service programs (SSPs) is an effective approach to reducing transmission of HIV, viral hepatitis, and other diseases (https://www.cdc.gov/ssp/syringe-services-programs-summary.html), these programs are not universally legal or available in all communities due to stigma and misinformation. Additionally, self-reported stigma and mistrust in the healthcare system and greater community at large prevent PWID from accessing services and healthcare.[19] PWID, as any other member of the population, may experience homelessness, unemployment, untreated mental health conditions, physical, sexual, or emotional abuse, poor familial or social support, criminalization and incarceration, and discrimination.[20, 21]

Stigma generates psychological trauma, internalized shame, loss of self-worth, and fear of discrimination and judgement by society among those associated with marginalized populations such as PWID.[22, 23, 24] As such, PWID with or without comorbid conditions may forgo or delay screening or treatment for diseases such as viral hepatitis out of a desire to avoid community settings in which they have previously felt excluded, mainly healthcare settings or healthcare providers.[25] When PWID do seek care, they often experience discrimination and receive lesser quality care.[26] Efforts may be made by PWID to hide their drug use from healthcare providers to avoid stigma and discrimination.[27] As a barrier to care, stigma and discrimination may adversely affect both mental and physical health by impeding entry into the healthcare system, reducing accurate reporting of health issues, and lowering the quality of care received.[28]

SHHP is committed to adopting policies and developing interventions that tackle the barriers preventing those most affected by viral hepatitis from achieving good health outcomes.

Introduction to Surveillance

The purpose of surveillance is to detect outbreaks, describe the current burden of disease, and monitor trends in disease. Data gathered from surveillance are critical to understanding how a disease affects a community. Prevention of hepatitis B and C requires robust data collected through surveillance to inform design and implementation of effective interventions. Louisiana's Public Health Sanitary Code provides the state the authority to collect labs and health information needed to appropriately identify and characterize people diagnosed with hepatitis B and C.

Louisiana's Public Health Sanitary Code

Louisiana's Public Health Sanitary Code (Title 51, Part II, Chapter 1) establishes requirements for reporting certain diseases and conditions, unusual health events, and outbreaks of disease. The Sanitary Code requires that any physician practicing medicine in Louisiana who attends to or examines a person with hepatitis B (acute, carriage in pregnancy or perinatal infection) or hepatitis C (acute or perinatal) must report the case by the end of the next business day. Chronic hepatitis C infection is reportable within 5 business days. Positive laboratory results for hepatitis B and all laboratory results (both positive and negative) for hepatitis C are reportable. These reporting requirements apply to health care providers, laboratories and other entities.

Chapter 1

Hepatitis B in Louisiana

Background

Hepatitis B is a vaccine-preventable liver infection caused by the hepatitis B virus (HBV). It is spread when body fluids with the virus enters the body of someone without the virus. This can happen by needle stick, sharing drug injection equipment, sexual contact, mother to baby exposure at birth, or sharing personal care items that can break skin or mucous membranes such as razors, toothbrushes, or glucose monitoring equipment. The most common ways that hepatitis B is spread is by injection drug use and sexual contact. Additionally, hepatitis B can be easily spread from mother to child during birth if appropriate post-exposure prophylaxis is not administered to the infant.

New infections of hepatitis B cause a short term illness, referred to as an acute infection. Some people are able to clear HBV on their own and will no longer have hepatitis B in their body, and are immune from future exposures to HBV. Others may develop a long-term chronic illness that may result in cirrhosis, liver cancer, and death. Approximately, 25% of those who acquire HBV in childhood and 15% of those who acquire HBV in adulthood will die from cirrhosis or liver cancer. The risk of developing a chronic infection is directly related to age. The younger a person is when they acquire HBV the more likely they are to develop a chronic infection. Approximately 90% of infants with acute hepatitis B will develop chronic infection, whereas only 2-6% of adults will develop chronic infection.[29]

The most effective way to prevent hepatitis B is through vaccination. Treatment is available for chronic hepatitis B, but it is not curative and is used to prevent worsening of liver disease. Reported cases of hepatitis B declined after routine vaccination for children was recommended in 1991.[30] It's estimated that between 880,000 and 1.89 million people are living with hepatitis B in the United States, and an estimated 21,600 people are newly infected each year.[30, 31] Approximately, two-thirds of adults living with HBV are not aware of their condition.[32]

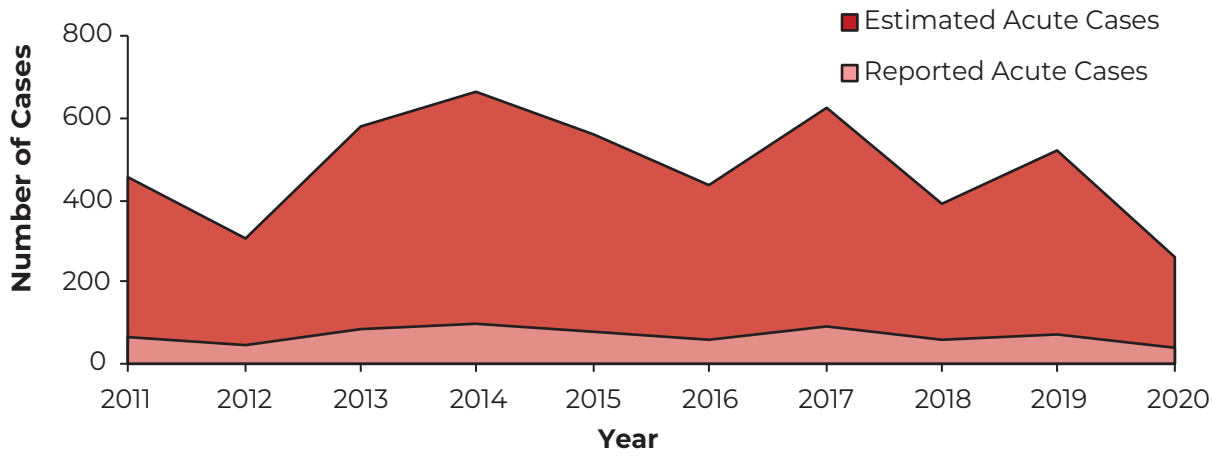
Acute Hepatitis B

Trends in Reported Acute Hepatitis B Cases and Underreporting

People with acute hepatitis B may not experience symptoms or may experience very mild symptoms. Consequently, not everyone with acute hepatitis B may seek medical care. Research estimates that only 1 out of 7 people with acute hepatitis B are identified and reported to public health.[33] It's likely that the burden of disease from acute hepatitis B is much greater in Louisiana than reported, and the number of cases that are reported to and confirmed by public health, are only a small proportion of the true burden of disease.

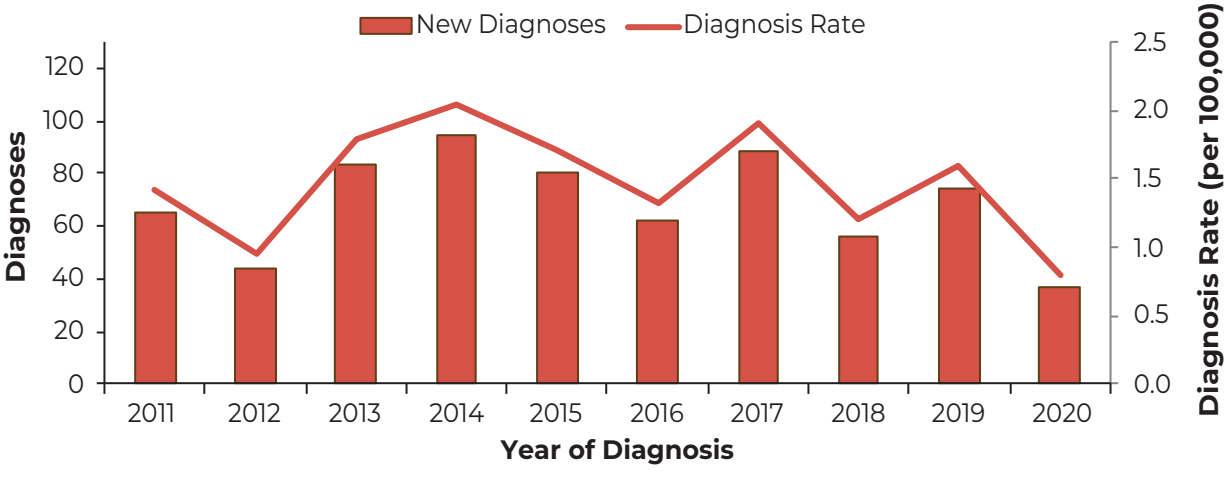
The surveillance case definition for acute Hepatitis B was most recently published in 2012 and can be found here, https://ndc.services.cdc.gov/case-definitions/hepatitis-b-acute-2012/.

Number of Reported and Estimated Acute Hepatitis B Cases
Louisiana, 2011-2020



In 2020, there were 37 cases of acute hepatitis B reported for a rate of 0.8 per 100,000 population, a likely undercount as many people were unable to access care due to the COVID-19 pandemic. Acute hepatitis B is already underreported in non-pandemic years, as many people who acquire the virus have very mild symptoms or no symptoms at all, and consequently do not seek medical care or may not be screened for HBV. Taking into account underreporting, acute hepatitis B infections likely affect close to 500 people in Louisiana each year. The estimated rate, after taking into account underreporting, is likely close to 10.4 per 100,000 population.

Reported Acute HBV Diagnoses and Rates
Louisiana, 2011-2020

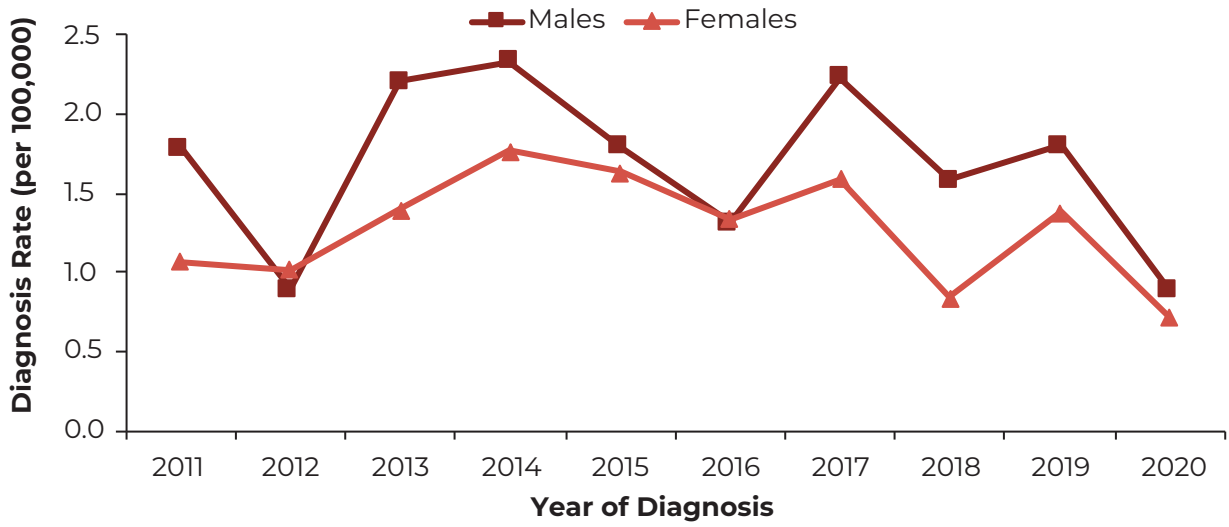


While the number of people diagnosed with acute HBV has fluctuated yearly, there has been an average of 69 new diagnoses reported from 2011-2020. The lowest number of new diagnoses occurred in 2020 (37 diagnoses), and the highest number of diagnoses occurred in 2014 (95 diagnoses).

Acute Hepatitis B Diagnoses by Sex, Race/Ethnicity, Age, and Public Health Region

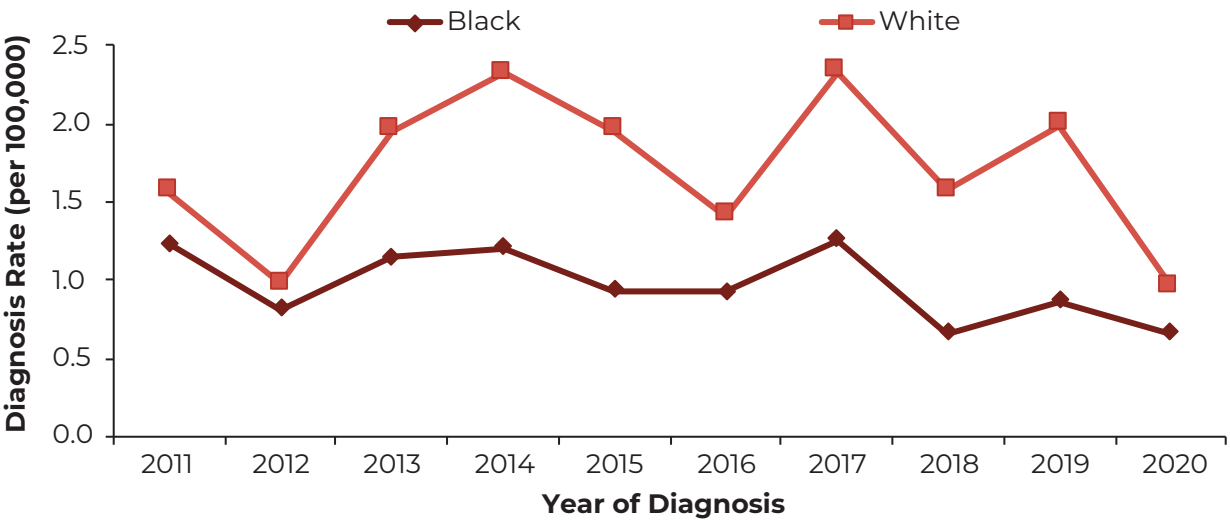
Although acute hepatitis B affects people of all genders, ages, and race/ethnicities throughout Louisiana, the impact is not the same across all populations. Identifying the populations most likely to acquire acute hepatitis B helps in planning prevention activities and services.

Trends in Reported Acute HBV Rates by Sex at Birth
Louisiana, 2011-2020



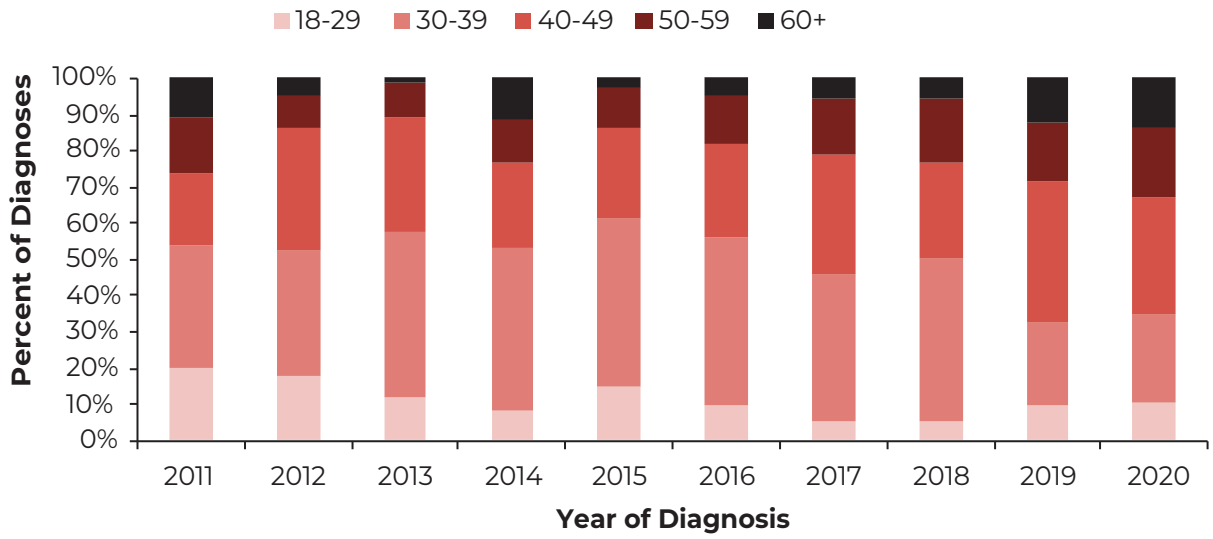
Of reported diagnoses in 2020, 54% (n=20) were male and 46% (n=17) were female. The larger proportion of reported diagnoses among males is typical of recent years. The diagnosis rate for males was 0.9 per 100,000 population and 0.7 per 100,000 population for females.

Trends in Reported Acute HBV Rates by Race/Ethnicity
Louisiana, 2011-2020



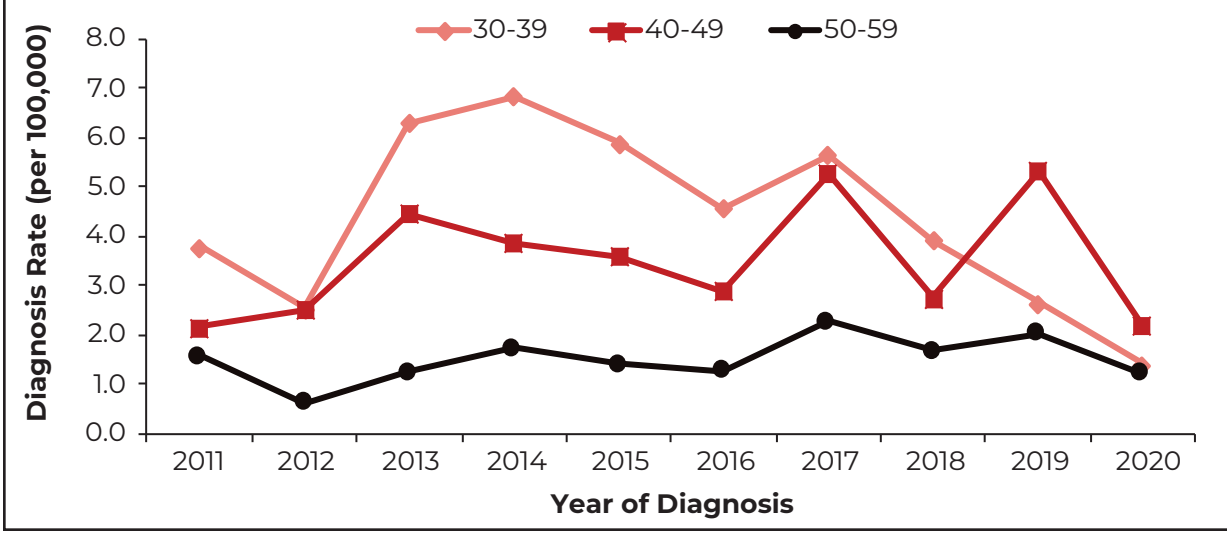
The majority of diagnoses in 2020 were among White people (70%, n=26), and 27% (n=10) were among Black people, which is in line with historical trends. The acute HBV diagnosis rate was 1.0 per 100,000 population for White people and 0.7 per 100,000 for Black people.

Trends in Reported Acute HBV Diagnoses by Age Group
Louisiana, 2011-2020



IIn 2020, the majority of reported acute HBV diagnoses (57%, n=21) were between the ages of 30-49 years, and 19% (n=7) of acute HBV diagnoses were between the ages of 50-59 years. Over the last 10 years, the proportion of diagnoses among those 40 and older has increased.

Trends in Reported Acute HBV Rates by Age Group
Louisiana, 2011-2020



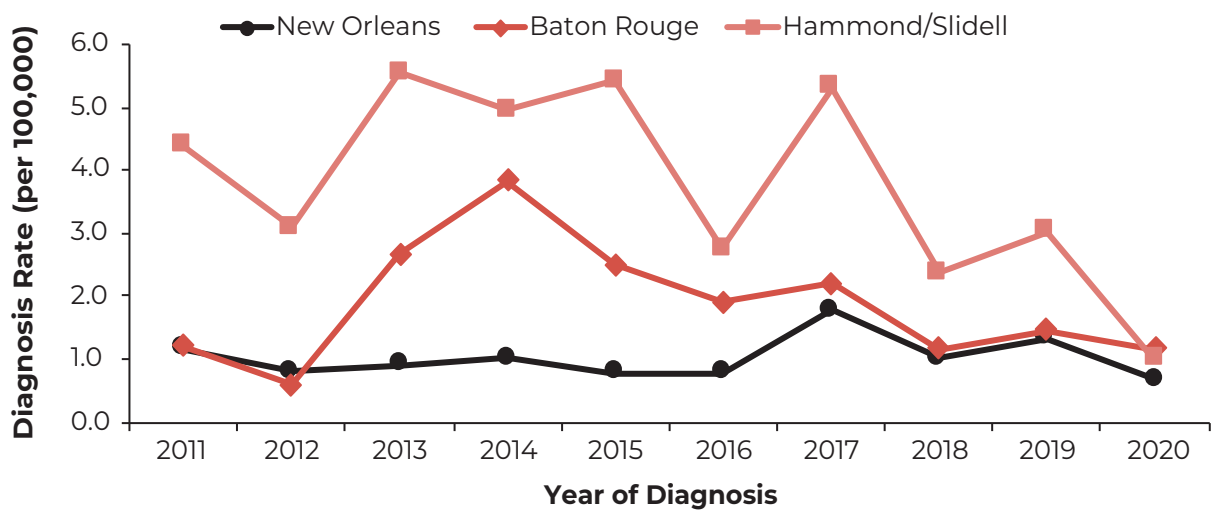
In 2020, people 40-49 years old had the highest rate of reported acute HBV diagnoses (2.2 per 100,000 population), followed by people 30-39 years old (1.4 per 100,000 population), and people 50-59 years old (1.2 per 100,000 population).

Reported Acute HBV Diagnoses by Region and Year
Louisiana, 2016-2020

	2016		2017		2018		2019		2020	
Louisiana	**62**	**100%**	**89**	**100%**	**56**	**100%**	**74**	**100%**	**37**	**100%**
1-New Orleans	7	11%	16	18%	9	16%	12	16%	6	16%
2-Baton Rouge	13	21%	15	17%	8	14%	10	14%	8	22%
3-Houma	10	16%	7	8%	7	13%	11	15%	4	11%
4-Lafayette	2	3%	2	2%	1	2%	4	5%	1	3%
5-Lake Charles	3	5%	4	4%	1	2%	8	11%	1	3%
6-Alexandria	3	5%	6	7%	6	11%	7	9%	5	14%
7-Shreveport	4	6%	2	2%	2	4%	1	1%	0	0%
8-Monroe	4	6%	6	7%	8	14%	3	4%	6	16%
9-Hammond/Slidell	16	26%	31	35%	14	25%	18	24%	6	16%

In 2020, the largest proportion of reported acute hepatitis B diagnoses were residents of Baton Rouge (22%, n=8), New Orleans (16%, n=6), Monroe (16%, n=6), and Hammond/Slidell (16%, n=6). From 2016 to 2020, the Hammond/Slidell region had the greatest cumulative number of new acute HBV diagnoses (n=85), followed by the Baton Rouge (n=54), and New Orleans (n=50) regions.

Trends in Reported Acute HBV Rates by Selected Region
Louisiana, 2011-2020



In 2020, the three public health regions in Louisiana with the highest rates of reported acute hepatitis B diagnoses were Baton Rouge (1.2 per 100,000 population), Hammond/Slidell (1.0 per 100,000 population), and New Orleans (0.7 per 100,000 population).

Characteristics of People Reported with Acute Hepatitis B

Characteristics of People Reported with Acute HBV
Louisiana, 2018-2020

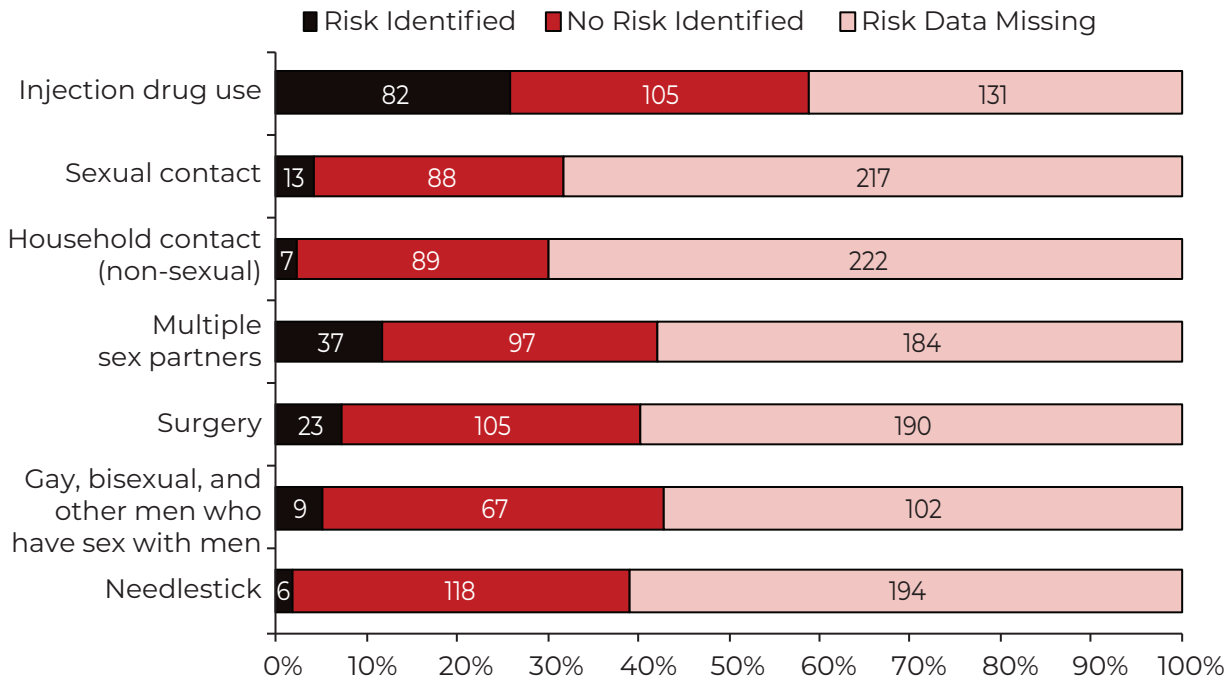
	2018			2019			2020		
	Diagnoses	Percent	Rate*	Diagnoses	Percent	Rate*	Diagnoses	Percent	Rate*
TOTAL	**56**	**100%**	**1.2**	**74**	**100%**	**1.6**	**37**	**100%**	**0.8**
Sex at Birth									
Male	36	64%	1.6	41	55%	1.8	20	54%	0.9
Female	20	36%	0.8	33	45%	1.4	17	46%	0.7
Race/Ethnicity									
Black/African American	10	18%	0.7	13	18%	0.9	10	27%	0.7
White	43	78%	1.6	54	76%	2.0	26	70%	1.0
Other	2	4%	-	4	6%	-	1	3%	-
Unknown	1	-	-	3	-	-	0	-	-
Age at Diagnosis									
0-17	0	0%	0.0	0	0%	0.0	0	0%	0.0
18-29	3	5%	n/a	7	9%	0.9	4	11%	n/a
30-39	25	45%	3.9	17	23%	2.7	9	24%	1.4
40-49	15	27%	2.7	29	39%	5.3	12	32%	2.2
50-59	10	18%	1.7	12	16%	2.0	7	19%	1.2
60+	3	5%	n/a	9	12%	0.9	5	14%	0.5
Region									
1-New Orleans	9	16%	1.0	12	16%	1.3	6	16%	0.7
2-Baton Rouge	8	14%	1.2	10	14%	1.5	8	22%	1.2
3-Houma	7	13%	1.8	11	15%	2.8	4	11%	n/a
4-Lafayette	1	2%	n/a	4	5%	n/a	1	3%	n/a
5-Lake Charles	1	2%	n/a	8	11%	2.6	1	3%	n/a
6-Alexandria	6	11%	2.0	7	9%	2.3	5	14%	1.7
7-Shreveport	2	4%	n/a	1	1%	n/a	0	0%	0.0
8-Monroe	8	14%	2.3	3	4%	n/a	6	16%	1.8
9-Hammond/Slidell	14	25%	2.4	18	24%	3.0	6	16%	1.0

*Rate per 100,000. Rates for numerators less than 20 are unreliable and are unavailable (n/a) for numerators less than 5.

Acute Hepatitis B Risk Behaviors and Exposures

Risk information is difficult to ascertain because individuals may not know how they acquired hepatitis B, their healthcare provider may not feel comfortable collecting the information, or the person may not be willing to share that information due to stigma or fear of discrimination. The most common ways that hepatitis B is transmitted is through injection drug use and sexual contact. An attempt is made to contact and interview each person newly diagnosed with acute hepatitis B. As part of the interview, there is an attempt to capture risk information. This information is used to monitor for outbreaks and direct prevention programs.

Reported Risk Behaviors/Exposures Among Reported Diagnoses of Acute HBV
Louisiana, 2016-2020



There were 318 people diagnosed with acute hepatitis B and reported from 2016-2020. Of these diagnoses, a potential risk factor was identified in 56% of cases (178/318). Of the diagnoses with a reported risk, the majority reported injection drug use (82/178), followed by having multiple sex partners (37/178).

Of the 318 acute HBV cases, 187 provided a complete response when asked about prior injection drug use and 44% (n=82) responded “yes”.

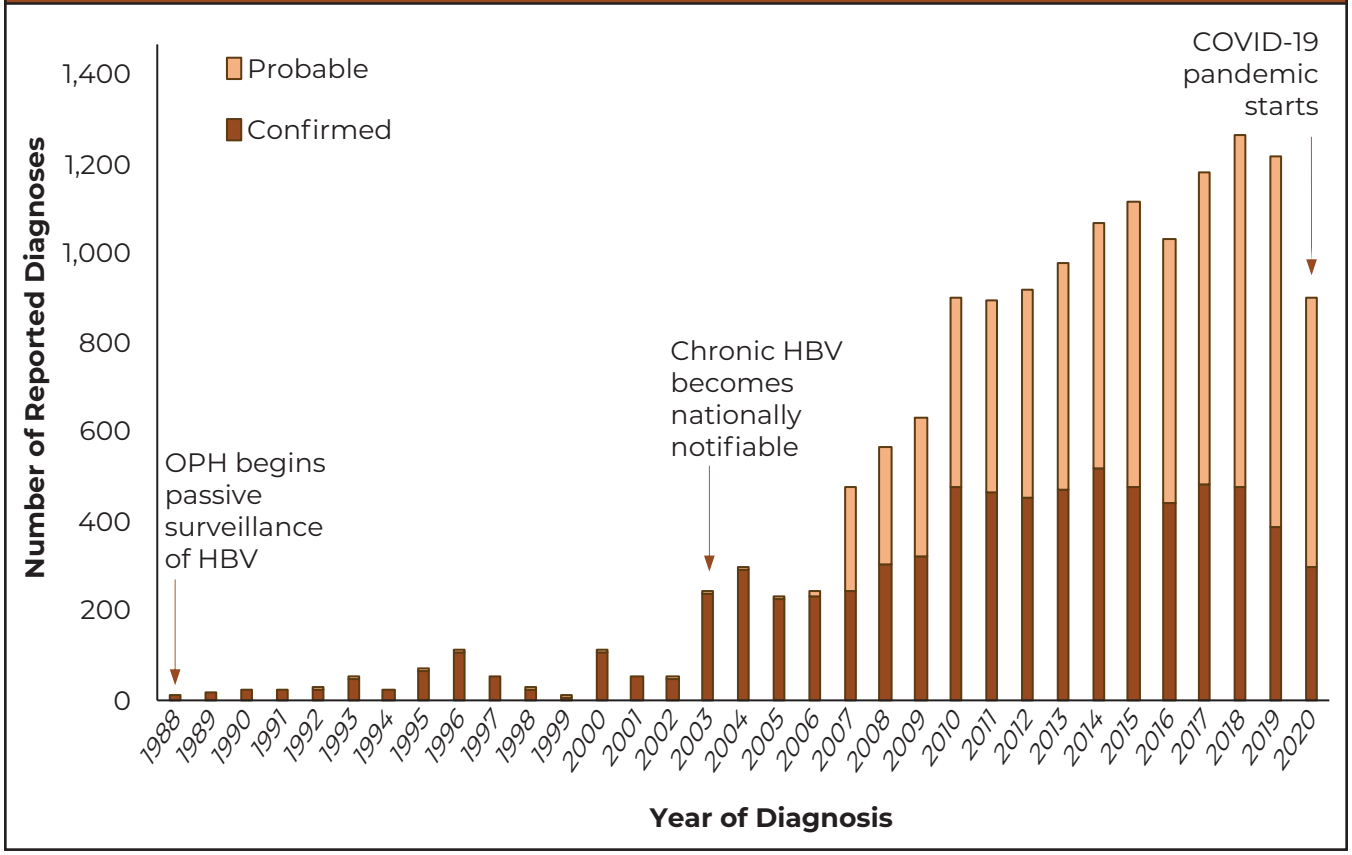
Chronic Hepatitis B

Trends in Reported Chronic Hepatitis B Cases

People with chronic hepatitis B may not experience symptoms of their infection until the onset of cirrhosis or end-stage liver disease, which may take decades to appear.[30] Since many people do not experience symptoms, they are unlikely to seek medical care, and once a person tests positive it can be difficult to determine how long a person has been living with hepatitis B, or identify how a person acquired the virus. New reports of chronic hepatitis B are likely to fluctuate yearly based on awareness among healthcare providers and the general population, and trends in testing and healthcare access.

Chronic hepatitis B can be categorized as either a probable or confirmed infection. The case definition for chronic hepatitis B was most recently published in 2012 and can be found at https://ndc.services.cdc.gov/case-definitions/hepatitis-b-chronic-2012/.

Number of Reported Chronic HBV Diagnoses by CDC Case Status
Louisiana, 1988-2020



Louisiana began passive surveillance of HBV in 1988. In 2003, chronic HBV became nationally notifiable. Reported cases of chronic HBV have increased since becoming reportable, except for in 2020 where case counts decreased likely due to COVID-19. From 2015-2019 in Louisiana, an average of 1,166 cases were reported each year. In 2020, 905 cases were reported, likely an undercount due to barriers in accessing care during the COVID-19 pandemic.

Chapter 1: Hepatitis B in Louisiana

Characteristics of People Reported with Chronic Hepatitis B

Characteristics of People with Reported Chronic HBV Diagnoses
Louisiana, 2011-2020

	2011		2012		2013		2014		2015			2016		2017		2018		2019		2020		TOTAL	
	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent		Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent
TOTAL	**901**	**100%**	**924**	**100%**	**984**	**100%**	**1,073**	**100%**	**1,123**	**100%**		**1,036**	**100%**	**1,183**	**100%**	**1,267**	**100%**	**1,222**	**100%**	**905**	**100%**	**10,618**	**100%**
Sex at Birth																							
Male	517	57%	540	58%	568	58%	642	60%	662	59%		585	57%	675	57%	727	57%	717	59%	550	61%	6,183	58%
Female	384	43%	384	42%	416	42%	430	40%	455	41%		449	43%	508	43%	540	43%	505	41%	354	39%	4,425	42%
Unknown	0	-	0	-	0	-	1	-	6	-		2	-	0	-	0	-	0	-	1	-	10	-
Race/Ethnicity																							
Asian	110	16%	103	15%	127	17%	155	19%	125	15%		97	13%	172	16%	192	17%	149	14%	108	13%	1,338	15%
Black/African American	321	47%	336	49%	334	45%	346	42%	372	46%		342	45%	468	45%	490	43%	471	43%	350	41%	3,830	44%
Hispanic/Latinx	19	3%	14	2%	18	2%	15	2%	29	4%		24	3%	15	1%	23	2%	22	2%	21	2%	200	2%
White	225	33%	212	31%	246	33%	278	34%	280	34%		286	38%	381	36%	408	36%	446	40%	348	41%	3,110	36%
Other	10	1%	23	3%	12	2%	23	3%	10	1%		11	1%	13	1%	22	2%	14	1%	17	2%	155	2%
Unknown	216	-	236	-	247	-	256	-	307	-		276	-	134	-	132	-	120	-	61	-	1,985	-
Age at Diagnosis																							
0-17	13	1%	16	2%	7	1%	16	1%	16	1%		5	0%	10	1%	10	1%	9	1%	7	1%	109	1%
18-29	139	15%	143	15%	120	12%	120	11%	142	13%		125	12%	127	11%	165	13%	177	14%	98	11%	1,356	13%
30-39	213	24%	180	19%	217	22%	210	20%	218	19%		221	21%	243	21%	258	20%	239	20%	175	19%	2,174	20%
40-49	199	22%	222	24%	215	22%	254	24%	221	20%		224	22%	255	22%	238	19%	242	20%	208	23%	2,278	21%
50-59	193	21%	175	19%	222	23%	248	23%	257	23%		226	22%	267	23%	270	21%	253	21%	185	20%	2,296	22%
60-69	99	11%	131	14%	131	13%	153	14%	179	16%		155	15%	205	17%	214	17%	185	15%	153	17%	1,605	15%
70+	45	5%	57	6%	72	7%	72	7%	90	8%		80	8%	76	6%	112	9%	117	10%	79	9%	800	8%
Region																							
1-New Orleans	229	25%	256	28%	324	33%	388	36%	332	31%		297	29%	338	29%	392	31%	343	28%	250	28%	3,149	30%
2-Baton Rouge	145	16%	148	16%	142	14%	179	17%	202	19%		178	17%	227	19%	202	16%	235	19%	136	15%	1,794	17%
3-Houma	61	7%	56	6%	65	7%	63	6%	61	6%		98	9%	115	10%	119	9%	99	8%	76	8%	813	8%
4-Lafayette	111	12%	125	14%	121	12%	110	10%	116	11%		124	12%	124	10%	104	8%	112	9%	106	12%	1,153	11%
5-Lake Charles	62	7%	42	5%	41	4%	42	4%	51	5%		50	5%	48	4%	60	5%	71	6%	54	6%	521	5%
6-Alexandria	44	5%	49	5%	44	4%	32	3%	53	5%		51	5%	59	5%	74	6%	78	6%	41	5%	525	5%
7-Shreveport	108	12%	103	11%	86	9%	94	9%	87	8%		81	8%	93	8%	108	9%	92	8%	80	9%	932	9%
8-Monroe	66	7%	65	7%	71	7%	55	5%	81	8%		55	5%	59	5%	73	6%	61	5%	58	6%	644	6%
9-Hammond/Slidell	75	8%	80	9%	90	9%	108	10%	87	8%		102	10%	120	10%	135	11%	131	11%	104	11%	1,032	10%
Unknown	0	-	0	-	0	-	2	-	53	-		0	-	0	-	0	-	0	-	0	-	55	-

There have been no significant changes in the populations affected by chronic hepatitis B over the past 10 years. From 2011-2020, more males than females have been diagnosed (58% compared to 42%). Despite only accounting for 31% of the population, Black people accounted for 44% of diagnoses. Asian people account for 2% of Louisiana's population, but accounted for 15% of chronic HBV diagnoses. The majority of reported chronic hepatitis B diagnoses occurred in people age 30-59 years old (63%). The majority of people diagnosed with HBV lived in the New Orleans (30%), Baton Rouge (17%), Lafayette(11%), and Hammond/Slidell (10%) regions

Chapter 2

Hepatitis C in Louisiana

Background

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV). It is a blood-borne virus, and is spread when blood with the virus enters the body of someone without the virus. Today, most people acquire hepatitis C by sharing drug injection equipment, and less commonly through sexual contact, or mother to infant exposure at birth. New infections of hepatitis C cause a short term illness, referred to as an acute infection. Some people are able to clear HCV on their own and will no longer have the hepatitis C virus in their body. Others may develop a long-term chronic illness that may result in cirrhosis, liver cancer, and death if not treated. Approximately 80% of people with acute infection will develop a chronic infection. Of those with chronic infection, 5-20% will develop cirrhosis, and 1-5% will die from cirrhosis or liver cancer.[34]

There is no vaccine to prevent hepatitis C. However, a safe and effective cure is available. An estimated 2.4 million people are living with hepatitis C in the United States and 57,500 are newly infected each year.[30, 35] Approximately, 56% of adults living with hepatitis C are aware of their diagnosis.[32]

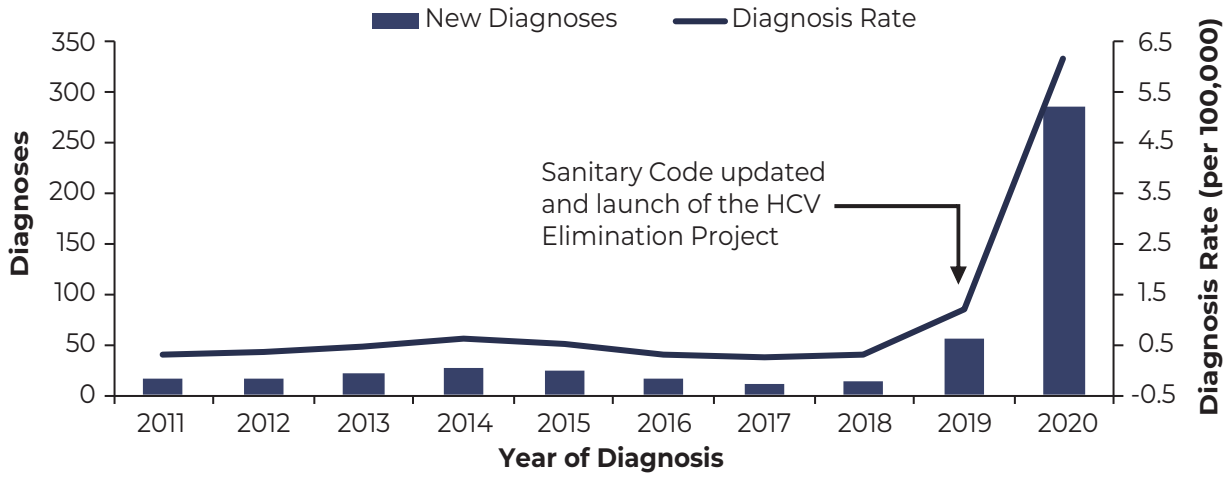
Acute Hepatitis C

Trends in Reported Acute Hepatitis C Cases

Louisiana has greatly expanded its capacity to identify acute hepatitis C cases. The Louisiana Sanitary Code was updated in May 2019 to include the reporting of negative screening and confirmatory tests for hepatitis C. Additionally, a statewide initiative to eliminate hepatitis C has increased awareness and testing, especially for populations most likely to be affected. The change in the Sanitary Code, combined with increased testing, allows for the identification of people who seroconvert (i.e. test negative and then positive for hepatitis C within a 12-month period) and can be classified as confirmed acute HCV cases. Many with acute hepatitis C may have very mild symptoms or no symptoms at all. Consequently, many do not seek medical care. Expanded testing of priority populations and collecting negative HCV tests allows Louisiana to identify many cases that would have previously gone undetected.

The surveillance case definition for acute Hepatitis C was most recently published in 2020 and can be found here, https://ndc.services.cdc.gov/case-definitions/hepatitis-c-acute-2020/.

Reported Acute HCV Diagnoses and Rates
Louisiana, 2011-2020

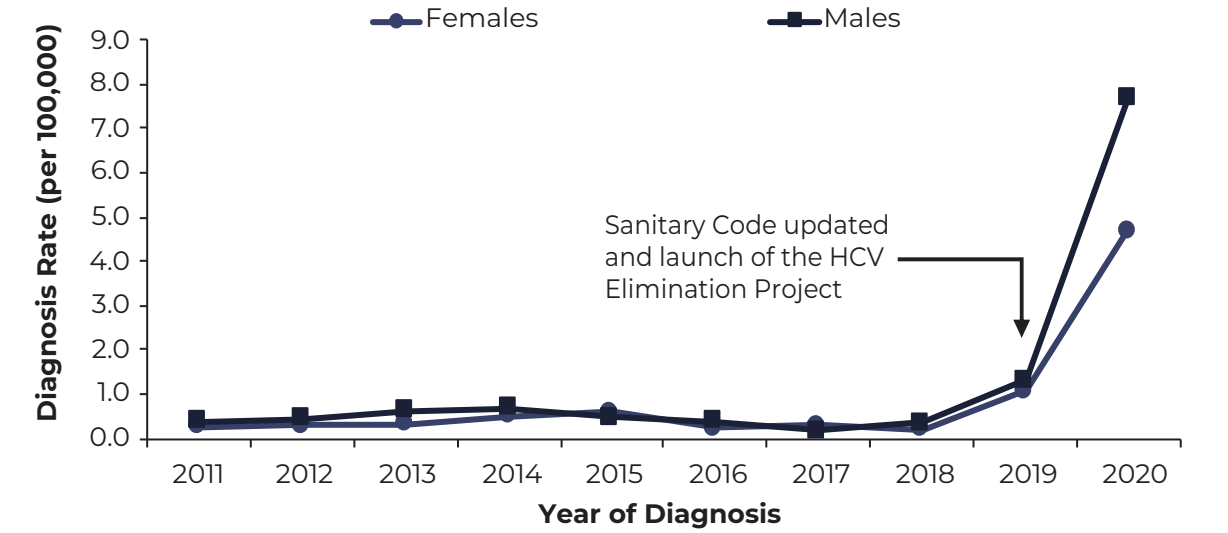


From 2011 to 2018, an average of 18 cases of acute HCV were identified each year. Due to increased awareness, screening, and the report of HCV negative testing, the report of acute HCV increased to 56 acute HCV diagnoses in 2019, and 286 acute diagnoses in 2020.

Acute Hepatitis C Diagnoses by Sex, Race/Ethnicity, Age, and Public Health Region

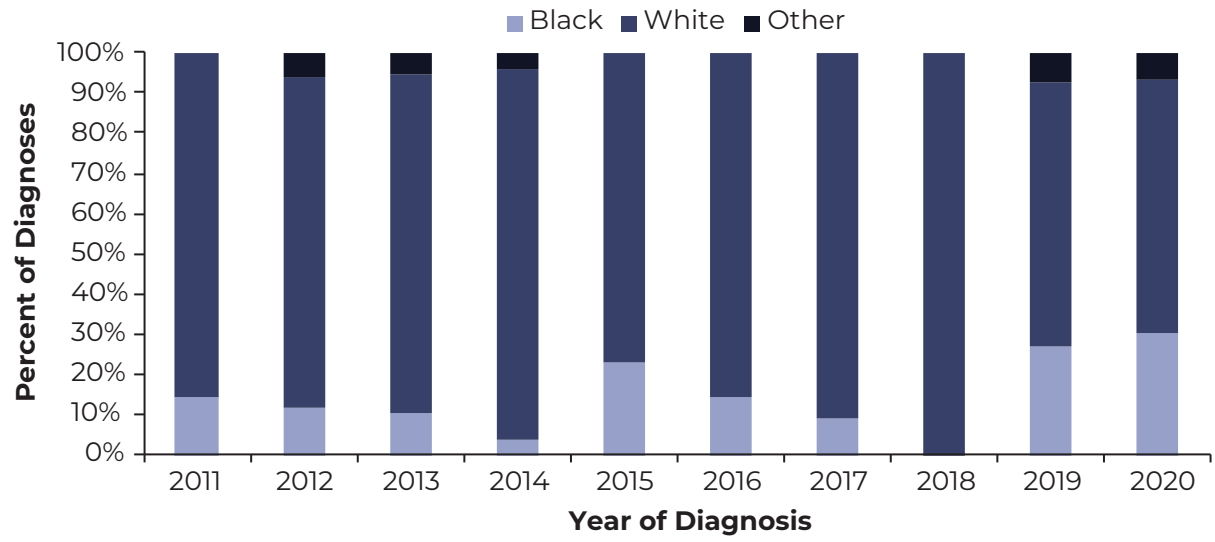
Although acute hepatitis C affects people of all genders, ages, and race/ethnicities throughout Louisiana, the impact is not the same across all populations. Identifying the populations more likely to acquire acute hepatitis C assists in planning prevention activities and services and the distribution of limited resources.

Trends in Reported Acute HCV Rates by Sex at Birth
Louisiana, 2011-2020



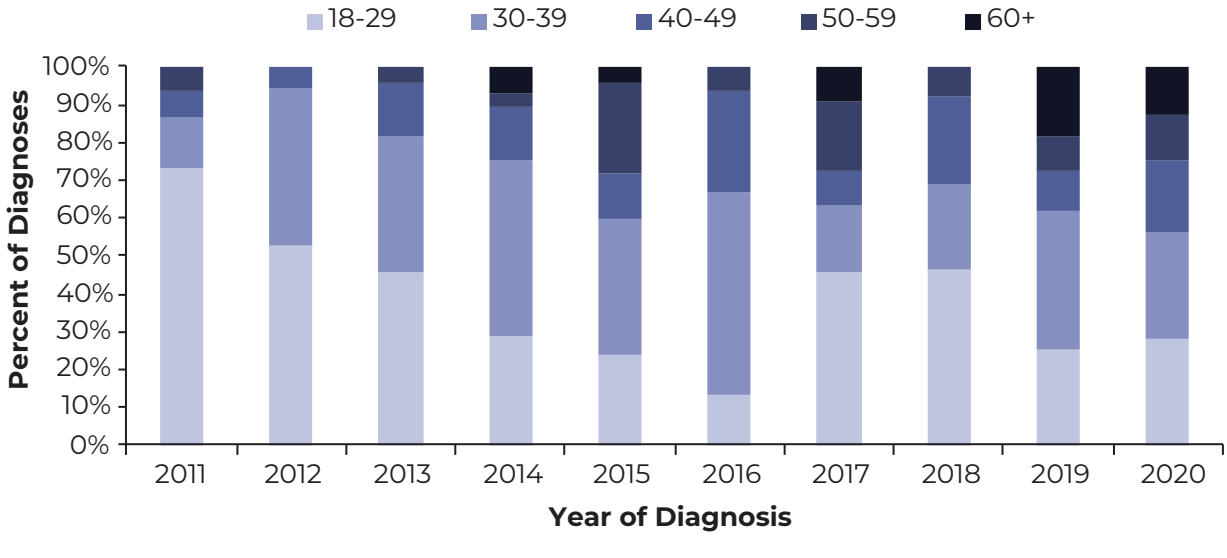
Among people diagnosed with acute HCV in 2020, 61% (n=174) were male and 39% (n=112) were female. In 2020, a larger proportion of males were diagnosed compared to females. The reported rate for males was 7.7 per 100,000 population compared to 4.7 per 100,000 population for females.

Trends in Reported Acute HCV Diagnoses by Race/Ethnicity
Louisiana, 2011-2020



The majority of people diagnosed with acute HCV in 2020 were White (62%, n=177), and 30% (n=85) were Black.

Trends in Reported Acute HCV Diagnoses by Age Group
Louisiana, 2011-2020



The majority of reported diagnoses (56%, n=160) were 18-39 years old, and 13% (n=37) were 60 years and older. Over the last 10 years, an average of 72% of diagnoses were 18-39 years old.

Reported Acute HCV Diagnoses by Region and Year
Louisiana, 2016-2020

	2016		2017		2018		2019		2020	
Louisiana	**15**	**100%**	**11**	**100%**	**13**	**100%**	**56**	**100%**	**286**	**100%**
1-New Orleans	1	7%	0	0%	5	38%	18	32%	81	28%
2-Baton Rouge	5	33%	5	45%	0	0%	11	20%	58	20%
3-Houma	0	0%	0	0%	1	8%	3	5%	31	11%
4-Lafayette	2	13%	0	0%	1	8%	6	11%	30	10%
5-Lake Charles	0	0%	0	0%	0	0%	0	0%	9	3%
6-Alexandria	2	13%	1	9%	1	8%	2	4%	13	5%
7-Shreveport	1	7%	0	0%	0	0%	2	4%	9	3%
8-Monroe	0	0%	3	27%	0	0%	3	5%	8	3%
9-Hammond/Slidell	4	27%	2	18%	5	38%	11	20%	47	16%

The largest proportion of reported acute hepatitis C diagnoses lived in the New Orleans (28%, n=81), Baton Rouge (20%, n=58), and Hammond/Slidell regions (16%, n=47). Over the last five years, the majority of reported diagnoses lived in these three regions.

Characteristics of People Reported with Acute Hepatitis C

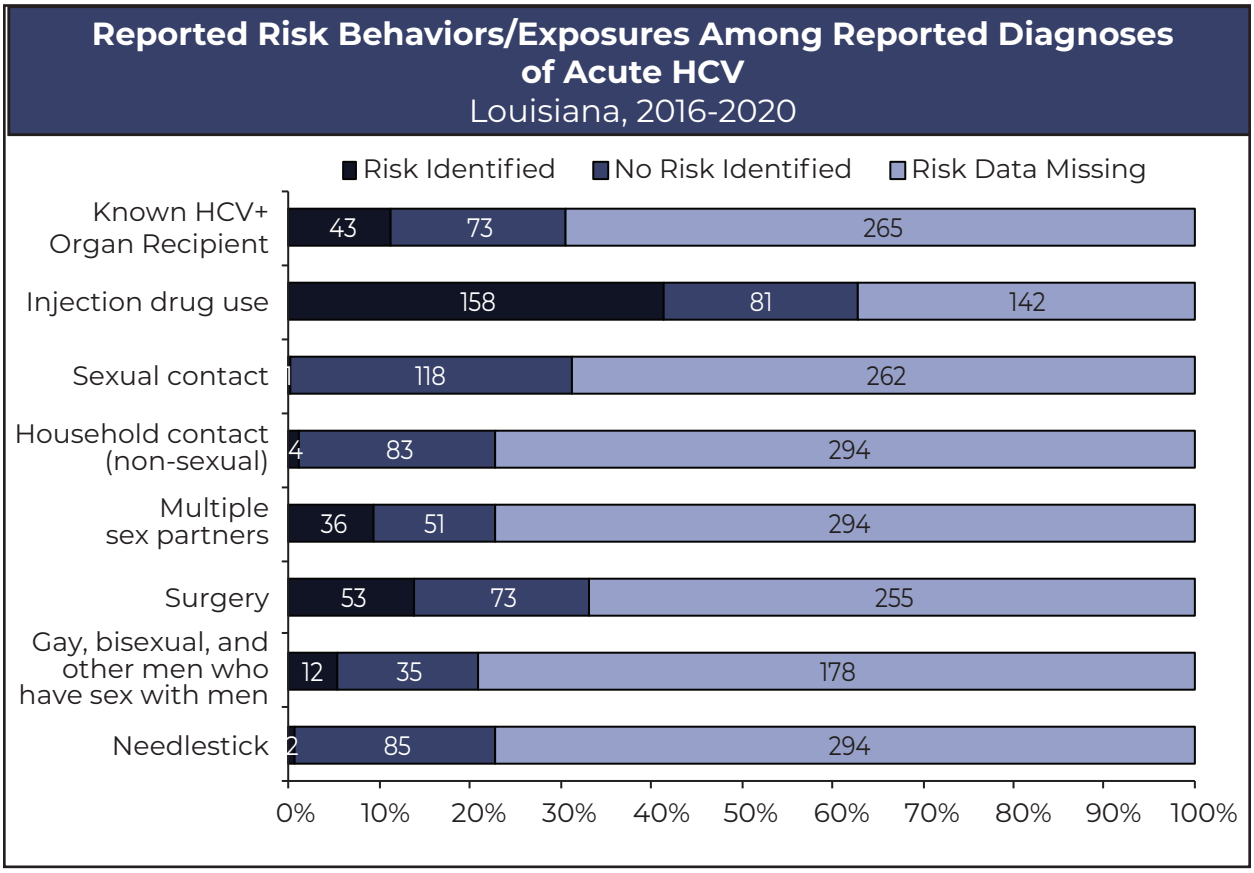
Characteristics of People Reported with Acute HCV
Louisiana, 2018-2020

	2018			2019			2020		
	Diagnoses	Percent	Rate*	Diagnoses	Percent	Rate*	Diagnoses	Percent	Rate*
TOTAL	**13**	**100%**	**0.3**	**56**	**100%**	**1.2**	**286**	**100%**	**6.2**
Sex at Birth									
Male	8	62%	0.4	30	54%	1.3	174	61%	7.7
Female	5	38%	0.2	26	46%	1.1	112	39%	4.7
Race/Ethnicity									
Black/African American	0	0%	0.0	15	27%	1.0	85	30%	5.7
White	13	100%	0.5	37	66%	1.4	177	63%	6.6
Other	0	0%	-	4	7%	-	20	7%	-
Unknown	0	-	-	0	-	-	4	-	-
Age at Diagnosis									
0-17	0	0%	0.0	1	2%	n/a	0	0%	0.0
18-29	6	46%	0.8	14	25%	1.8	80	28%	10.8
30-39	3	23%	n/a	20	36%	3.1	80	28%	12.5
40-49	3	23%	n/a	6	11%	1.1	55	19%	10.1
50-59	1	8%	n/a	5	9%	0.9	34	12%	5.9
60+	0	0%	n/a	10	18%	1.0	37	13%	3.5
Region									
1-New Orleans	5	38%	0.6	18	32%	2.0	81	28%	9.1
2-Baton Rouge	0	0%	0.0	11	20%	1.6	58	20%	8.5
3-Houma	1	8%	n/a	3	5%	n/a	31	11%	7.9
4-Lafayette	1	8%	n/a	6	11%	1.0	30	10%	5.0
5-Lake Charles	0	0%	0.0	0	0%	0.0	9	3%	3.0
6-Alexandria	1	8%	n/a	2	4%	n/a	13	5%	4.4
7-Shreveport	0	0%	0.0	2	4%	n/a	9	3%	1.7
8-Monroe	0	0%	0.0	3	5%	n/a	8	3%	2.3
9-Hammond/Slidell	5	38%	0.8	11	20%	1.9	47	16%	7.8

*Rate per 100,000. Rates for numerators less than 20 are unreliable and are unavailable (n/a) for numerators less than 5.

Acute Hepatitis C Risk Behaviors and Exposures

Risk information is difficult to ascertain because individuals may not know how they acquired hepatitis C, their healthcare provider may not feel comfortable collecting the information, or the person may not be willing to share that information possibly due to stigma or fear of discrimination. Hepatitis C requires a person to come into contact with blood containing the virus. The most common way that hepatitis C is transmitted is by sharing needles or other equipment used to inject drugs, and less commonly through sexual contact. An attempt is made to contact and interview each person newly diagnosed with acute hepatitis C. As part of the interview, there is an attempt to capture risk information. This information is used to monitor for outbreaks and direct prevention programs.



From 2016 to 2020, 381 people were diagnosed with acute hepatitis C. A potential risk factor was identified for 68% of these people (258/381). The most common risk factor identified was injection drug use (158/258).

Of the 381 acute HCV diagnoses, 239 provided a complete response when asked about prior injection drug use and 66% (n=158) responded “yes”.

The advent of safe and effective drugs to treat hepatitis C, combined with the increase in drug overdose deaths from the opioid epidemic, has resulted in an increased number of deceased donors who have detectable HCV RNA. Transplant of organs from a known detectable HCV RNA donor is becoming routine. Transmission of HCV may occur to the recipient. Safe and effective treatment allows the recipient to be cured after transmission is confirmed.[36-38] In 2020, there were 43 diagnoses of acute hepatitis C that were the result of a known detectable HCV RNA organ donor.

Characteristics of People Reported with Acute Hepatitis C with Report of Recent Injection Drug Use

Characteristics of People Reported with Acute HCV with Report of Injection Drug Use
Louisiana, 2018-2020

	2018		2019		2020	
	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent
TOTAL	**7**	**100%**	**24**	**100%**	**111**	**100%**
Sex at Birth						
Men	5	71%	12	50%	62	56%
Women	2	29%	12	50%	49	44%
Race/Ethnicity						
Black/African American	0	0%	2	8%	12	11%
White	7	100%	22	92%	93	84%
Other	0	0%	0	0%	6	5%
Age at Diagnosis						
0-17	0	0%	0	0%	0	0%
18-29	5	71%	10	42%	50	45%
30-39	0	0%	11	46%	44	40%
40-49	2	29%	2	8%	14	13%
50-59	0	0%	1	4%	2	2%
60+	0	0%	0	0%	1	1%
Region						
1-New Orleans	3	43%	10	42%	33	30%
2-Baton Rouge	0	0%	5	21%	22	20%
3-Houma	1	14%	1	4%	13	12%
4-Lafayette	1	14%	1	4%	6	5%
5-Lake Charles	0	0%	0	0%	4	4%
6-Alexandria	1	14%	1	4%	3	3%
7-Shreveport	0	0%	0	0%	3	3%
8-Monroe	0	0%	1	4%	5	5%
9-Hammond/Slidell	1	14%	5	21%	22	20%

In 2020, diagnoses of acute hepatitis C who reported recent or ongoing injection drug use were highest in males (56%), White people (84%), and people age 18-39 years old (85%). People diagnosed with acute HCV who noted recent or ongoing injection drug use primarily lived in the New Orleans (30%), Baton Rouge (20%), Hammond/Slidell (20%), and Houma (12%) regions.

Chronic Hepatitis C

Trends in Reported Chronic Hepatitis C Cases

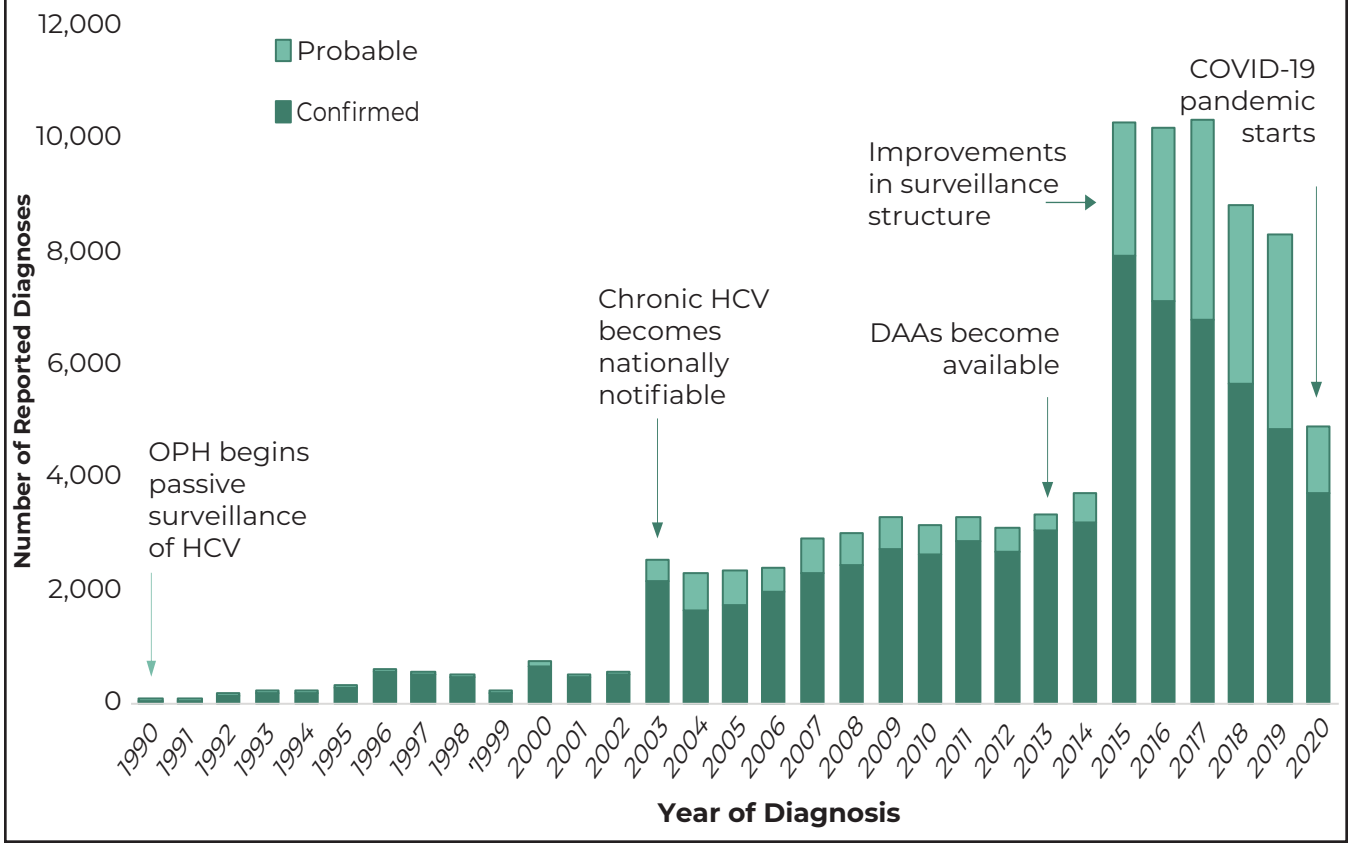
People with chronic hepatitis C may not experience symptoms of their chronic infection until the onset of cirrhosis or end-stage liver disease, which can take decades to appear.[34] Since many people do not experience symptoms, they are unlikely to seek medical care, and once tested it can be difficult to know how long a person has been living with HCV. New reports of chronic hepatitis C are likely to fluctuate each year based on awareness among healthcare providers and the general population, and trends in testing and healthcare access. Despite these uncertainties, incidence of chronic hepatitis C has been driven by the opioid epidemic. There are two age groups greatly affected by hepatitis C, Baby Boomers (born 1945-1965), and people 18-39 years old.

Diagnoses of chronic hepatitis C have historically been high among Baby Boomers. Baby Boomers make up roughly one-quarter of the US population, but account for around three-quarters of chronic hepatitis C cases.[39] As young adults, Baby Boomers experienced more blood-borne exposures due to unscreened blood products, medical or dental exposures completed without modern infection control measures, and drug use when compared to other generations.[40]

Recent data show that a second age group in the population is affected by hepatitis C, resulting in a bimodal distribution of hepatitis C diagnoses. Recent years have seen a large increase in reported cases of chronic hepatitis C in people 18-39 years old due to the opioid epidemic. An estimated 80% of new cases of hepatitis C are acquired through injection drug use.[41-44] The increase in this population as seen in Louisiana is similar to trends seen nationally.

Chronic hepatitis C can be categorized as either a probable infection or a confirmed infection. The case definition for chronic hepatitis C was most recently published in 2020 and can be found at https://ndc.services.cdc.gov/case-definitions/hepatitis-c-chronic-2020/.

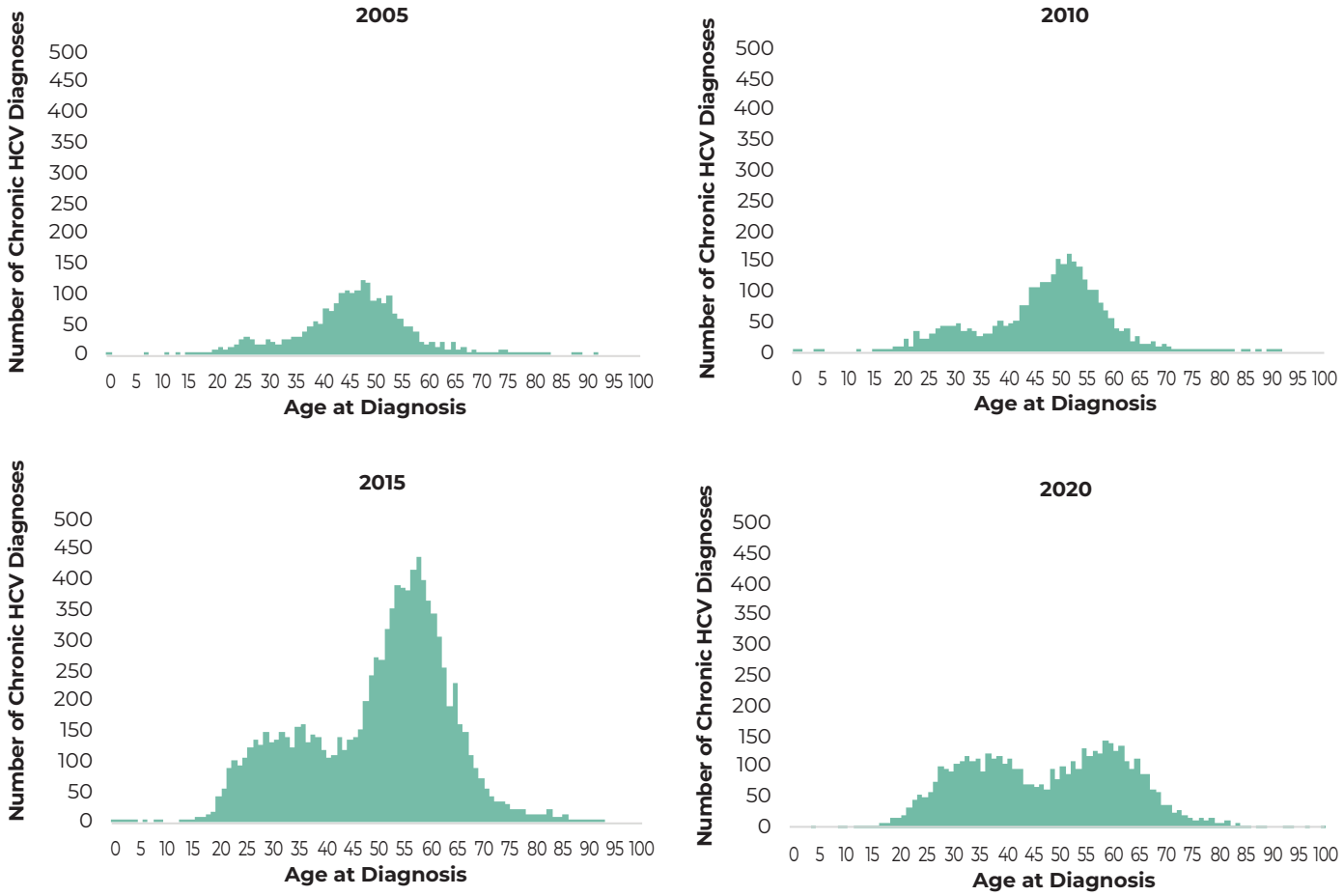
Number of Reported Chronic HCV Diagnoses by CDC Case Status
Louisiana, 1990-2020



Louisiana began passive surveillance of hepatitis C in 1990. In 2003, chronic HCV became nationally notifiable. Direct-acting antivirals (DAAs) became available in 2013 and revolutionized treatment for chronic hepatitis C. HCV treatment available prior to the introduction of DAAs, had poor cure rates and intolerable side effects. Recent improvements in the state's surveillance infrastructure have allowed for improved laboratory and case data reporting and efficient data processing. The improvements to screening, treatment, and surveillance have allowed for enhanced case ascertainment, and a better understanding of the true burden of disease in the state.

It is likely that the increased number of reports in the beginning of 2015 are due to increased incidence, enhanced case reporting, and increased awareness and screening. There was a large decrease in the number of people diagnosed in 2020 due to the COVID-19 pandemic. From 2015-2019, there were an average of 9,573 chronic hepatitis C diagnoses each year, and in 2020 there were 4,903 diagnoses.

Chronic Hepatitis C Diagnoses by Age at Diagnosis
Louisiana, 2005, 2010, 2015, 2020



The majority of new chronic HCV diagnoses have been in Baby Boomers (people born between 1945 and 1965). However, recent years have seen an increase in new diagnoses in people 18-39 years old mainly due to injection drug use. In 2005, only 22% (503/2,315) of newly reported chronic HCV diagnoses were in people 18-39 years old, while Baby Boomers accounted for 70% (1,616/2,978). The percentage of diagnoses in people 18-39 years old has increased in recent years. In 2020, people 18-39 years old accounted for 34% (1,656/4,903) of chronic HCV diagnoses, while Baby Boomers accounted for 38% (1,851/4,903).

Chapter 2: Hepatitis C in Louisiana

Characteristics of People Reported with Chronic Hepatitis C

Characteristics of People with Reported Chronic HCV Diagnoses
Louisiana, 2011-2020

	2011		2012		2013		2014		2015			2016		2017		2018		2019		2020		TOTAL	
	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent		Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent
TOTAL	**3,304**	**100%**	**3,092**	**100%**	**3,350**	**100%**	**3,704**	**100%**	**10,273**	**100%**		**10,182**	**100%**	**10,313**	**100%**	**8,794**	**100%**	**8,305**	**100%**	**4,903**	**100%**	**66,220**	**100%**
Sex at Birth																							
Men	2,164	65%	1,978	64%	2,091	62%	2,300	62%	6,367	62%		6,407	63%	6,405	62%	5,486	62%	5,141	62%	3,316	68%	41,655	63%
Women	1,140	35%	1,114	36%	1,259	38%	1,404	38%	3,906	38%		3,775	37%	3,908	38%	3,307	38%	3,164	38%	1,587	32%	24,564	37%
Unknown	0	-	0	-	0	-	0	-	0	-		0	-	0	-	1	-	0	-	0	-	1	-
Race/Ethnicity																							
Asian	17	1%	21	1%	21	1%	30	1%	94	1%		93	1%	70	1%	61	1%	53	1%	21	0%	481	1%
Black/African American	1,165	39%	1,061	37%	1,176	38%	1,324	38%	3,720	41%		3,538	35%	3,383	36%	2,821	35%	2,482	34%	1,510	34%	22,180	37%
Hispanic/Latinx	70	2%	59	2%	56	2%	81	2%	219	2%		202	3%	239	3%	201	3%	216	3%	154	3%	1,497	2%
White	1,710	57%	1,668	59%	1,807	59%	1,988	58%	5,025	55%		5,212	82%	5,682	60%	4,794	60%	4,500	61%	2,593	59%	34,979	58%
Other	23	1%	27	1%	22	1%	28	1%	125	1%		151	6%	122	1%	126	2%	154	2%	153	3%	931	2%
Unknown	319	-	256	-	268	-	253	-	1,090	-		986	-	817	-	791	-	900	-	472	-	6,152	-
Age at Diagnosis																							
0-17	15	0%	30	1%	17	1%	10	0%	37	0%		34	0%	40	0%	21	0%	29	0%	17	0%	250	0%
18-29	377	11%	356	12%	419	13%	419	11%	1,052	10%		1,254	12%	1,258	12%	1,164	13%	1,039	13%	569	12%	7,907	12%
30-39	411	12%	397	13%	443	13%	490	13%	1,417	14%		1,660	16%	1,899	18%	1,736	20%	1,871	23%	1,087	22%	11,411	17%
40-49	774	23%	598	19%	633	19%	568	15%	1,477	14%		1,385	14%	1,384	13%	1,297	15%	1,310	16%	847	17%	10,273	16%
50-59	1,284	39%	1,187	38%	1,232	37%	1,411	38%	3,632	35%		3,285	32%	3,087	30%	2,295	26%	1,852	22%	1,112	23%	20,377	31%
60-69	345	10%	401	13%	496	15%	670	18%	2,200	21%		2,100	21%	2,168	21%	1,850	21%	1,791	22%	1,009	21%	13,030	20%
70+	90	3%	117	4%	96	3%	133	4%	458	4%		464	5%	476	5%	431	5%	412	5%	262	5%	2,939	4%
Unknown	8	-	6	-	14	-	3	-	0	-		0	-	1	-	0	-	1	-	0	-	33	-
Birth Cohort																							
Prior to 1945	154	5%	171	6%	122	4%	147	4%	423	4%		353	3%	291	3%	226	3%	169	2%	108	2%	2,164	3%
1945-1965	2,022	61%	1,841	60%	1,922	58%	2,200	59%	6,012	59%		5,405	53%	5,140	50%	3,980	45%	3,423	41%	1,851	38%	33,796	51%
1966-1986	950	29%	870	28%	1,008	30%	1,051	28%	2,972	29%		3,213	32%	3,481	34%	3,161	36%	3,170	38%	1,999	41%	21,875	33%
1987+	170	5%	204	7%	284	9%	303	8%	866	8%		1,211	12%	1,400	14%	1,427	16%	1,542	19%	945	19%	8,352	13%
Unknown	8	-	6	-	14	-	3	-	0	-		0	-	1	-	0	-	1	-	0	-	33	-
Region																							
1-New Orleans	699	21%	548	18%	676	20%	853	23%	3,323	32%		3,318	33%	2,874	28%	2,303	26%	2,029	24%	988	20%	17,611	27%
2-Baton Rouge	591	18%	639	21%	691	21%	682	18%	1,925	19%		1,602	16%	1,746	17%	1,561	18%	1,426	17%	1,106	23%	11,969	18%
3-Houma	233	7%	210	7%	214	6%	318	9%	839	8%		873	9%	856	8%	742	8%	652	8%	316	6%	5,253	8%
4-Lafayette	388	12%	312	10%	364	11%	300	8%	746	7%		726	7%	837	8%	620	7%	645	8%	412	8%	5,350	8%
5-Lake Charles	247	7%	206	7%	233	7%	245	7%	528	5%		592	6%	571	6%	512	6%	398	5%	250	5%	3,782	6%
6-Alexandria	161	5%	155	5%	201	6%	235	6%	468	5%		536	5%	642	6%	596	7%	708	9%	343	7%	4,045	6%
7-Shreveport	371	11%	377	12%	370	11%	384	10%	671	7%		749	7%	780	8%	685	8%	709	9%	456	9%	5,552	8%
8-Monroe	157	5%	149	5%	173	5%	161	4%	413	4%		416	4%	529	5%	520	6%	457	6%	254	5%	3,229	5%
9-Hammond/Slidell	457	14%	496	16%	428	13%	526	14%	1,360	13%		1,364	13%	1,477	14%	1,255	14%	1,281	15%	778	16%	9,422	14%
Unknown	0	-	0	-	0	-	0	-	0	-		6	-	1	-	0	-	0	-	0	-	7	-

Chapter 2: Hepatitis C in Louisiana

Characteristics of People 18-39 Years Old Reported with Chronic Hepatitis C

Characteristics of People 18-39 Years Old with Reported Chronic HCV Diagnoses
Louisiana, 2011-2020

	2011		2012		2013		2014		2015			2016		2017		2018		2019		2020		TOTAL	
	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent		Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent
TOTAL	**788**	**100%**	**753**	**100%**	**862**	**100%**	**909**	**100%**	**2,469**	**100%**		**2,914**	**100%**	**3,157**	**100%**	**2,900**	**100%**	**2,910**	**100%**	**1,656**	**100%**	**19,318**	**100%**
Sex at Birth																							
Men	450	57%	422	56%	434	50%	496	55%	1,274	52%		1,653	57%	1,742	55%	1,600	55%	1,666	57%	1,062	64%	10,799	56%
Women	338	43%	331	44%	428	50%	413	45%	1,195	48%		1,261	43%	1,415	45%	1,300	45%	1,244	43%	594	36%	8,519	44%
Race/Ethnicity																							
Black/African American	152	20%	92	13%	116	14%	131	15%	412	18%		520	18%	554	19%	488	18%	543	21%	299	19%	3,307	19%
Hispanic/Latinx	29	4%	28	4%	23	3%	35	4%	74	3%		71	2%	100	3%	77	3%	108	4%	68	4%	613	3%
White	554	75%	581	81%	677	82%	686	80%	1,735	77%		1,991	68%	2,231	76%	2,062	77%	1,926	73%	1,132	74%	13,575	76%
Other	8	1%	12	2%	13	2%	9	1%	32	1%		46	2%	52	2%	56	2%	65	2%	40	3%	333	2%
Unknown	45	-	40	-	33	-	48	-	216	-		286	-	220	-	217	-	268	-	117	-	1,490	-
Region																							
1-New Orleans	173	22%	117	16%	112	13%	189	21%	764	31%		913	31%	909	29%	846	29%	692	24%	374	23%	5,089	26%
2-Baton Rouge	148	19%	152	20%	178	21%	159	17%	434	18%		460	16%	497	16%	514	18%	504	17%	336	20%	3,382	18%
3-Houma	58	7%	46	6%	62	7%	75	8%	197	8%		214	7%	234	7%	235	8%	253	9%	128	8%	1,502	8%
4-Lafayette	87	11%	88	12%	105	12%	107	12%	200	8%		238	8%	268	8%	172	6%	238	8%	125	8%	1,628	8%
5-Lake Charles	38	5%	48	6%	43	5%	39	4%	100	4%		178	6%	145	5%	150	5%	114	4%	84	5%	939	5%
6-Alexandria	32	4%	47	6%	67	8%	44	5%	118	5%		182	6%	212	7%	200	7%	277	10%	128	8%	1,307	7%
7-Shreveport	75	10%	64	8%	82	10%	59	6%	86	3%		120	4%	151	5%	118	4%	156	5%	77	5%	988	5%
8-Monroe	39	5%	38	5%	45	5%	41	5%	80	3%		92	3%	158	5%	176	6%	154	5%	84	5%	907	5%
9-Hammond/Slidell	138	18%	153	20%	168	19%	196	22%	490	20%		516	18%	583	18%	489	17%	522	18%	320	19%	3,575	19%
Unknown	0	-	0	-	0	-	0	-	0	-		1	-	0	-	0	-	0	-	0	-	1	-

From 2011-2020, diagnoses of chronic hepatitis C in people 18-39 years old were reported in more males than females (56% compared to 44% respectively). The majority of reported chronic HCV diagnoses occurred in White people (76%), 19% occurred in Black people, and 3% occurred in Hispanic/Latinx people. The majority of race/ethnicity information is reported via electronic laboratory report, which may underreport Hispanic ethnicity. People diagnosed with chronic HCV primarily reside in the New Orleans (26%), Hammond/Slidell (19%), and Baton Rouge (18%) regions.

Chapter 2: Hepatitis C in Louisiana

Characteristics of Baby Boomers Reported with Chronic Hepatitis C

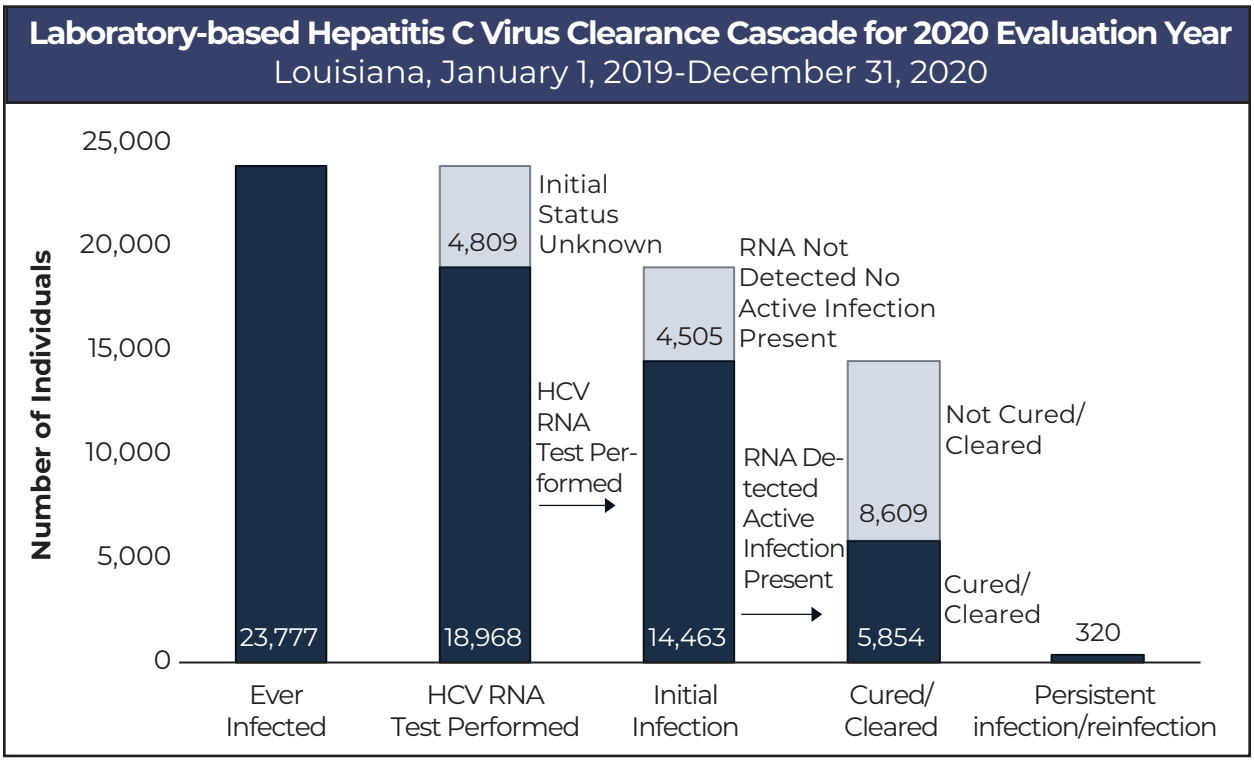
Characteristics of Baby Boomers with Reported Chronic HCV Diagnoses
Louisiana, 2011-2020

	2011		2012		2013		2014		2015			2016		2017		2018		2019		2020		TOTAL	
	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent		Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent	Diagnoses	Percent
TOTAL	**2,022**	**100%**	**1,841**	**100%**	**1,922**	**100%**	**2,200**	**100%**	**6,012**	**100%**		**5,405**	**100%**	**5,140**	**100%**	**3,980**	**100%**	**3,423**	**100%**	**1,851**	**100%**	**33,796**	**100%**
Sex at Birth																							
Men	1,388	69%	1,247	68%	1,327	69%	1,453	66%	4,052	67%		3,637	67%	3,442	67%	2,724	68%	2,240	65%	1,319	71%	22,829	68%
Women	634	31%	594	32%	595	31%	747	34%	1,960	33%		1,768	33%	1,698	33%	1,255	32%	1,183	35%	532	29%	10,966	32%
Unknown	.	-	.	-	.	-	.	-	.	-		.	-	.	-	1	-	.	-	.	-	1	-
Race/Ethnicity																							
Black/African American	854	47%	799	48%	888	51%	982	48%	2,700	50%		2,434	50%	2,238	48%	1,737	48%	1,401	46%	808	49%	14,841	49%
Hispanic/Latinx	31	2%	22	1%	18	1%	33	2%	92	2%		82	2%	82	2%	78	2%	51	2%	35	2%	524	2%
White	893	50%	831	49%	820	47%	992	49%	2,417	45%		2,227	45%	2,287	49%	1,684	47%	1,494	49%	723	44%	14,368	47%
Other	24	1%	29	2%	22	1%	36	2%	140	3%		156	3%	99	2%	88	2%	80	3%	68	4%	742	2%
Unknown	220	-	160	-	174	-	157	-	663	-		506	-	434	-	393	-	397	-	217	-	3,321	-
Region																							
1-New Orleans	431	21%	349	19%	432	22%	534	24%	1,966	33%		1,819	34%	1,390	27%	925	23%	807	24%	312	17%	8,965	27%
2-Baton Rouge	352	17%	396	22%	416	22%	406	18%	1,174	20%		891	16%	898	17%	740	19%	604	18%	480	26%	6,357	19%
3-Houma	143	7%	135	7%	103	5%	198	9%	511	8%		520	10%	463	9%	368	9%	267	8%	114	6%	2,822	8%
4-Lafayette	245	12%	172	9%	193	10%	155	7%	431	7%		377	7%	398	8%	324	8%	259	8%	174	9%	2,728	8%
5-Lake Charles	180	9%	116	6%	158	8%	166	8%	326	5%		291	5%	315	6%	244	6%	180	5%	95	5%	2,071	6%
6-Alexandria	102	5%	83	5%	101	5%	138	6%	245	4%		232	4%	291	6%	244	6%	237	7%	105	6%	1,778	5%
7-Shreveport	231	11%	250	14%	231	12%	262	12%	455	8%		470	9%	497	10%	428	11%	403	12%	262	14%	3,489	10%
8-Monroe	94	5%	79	4%	98	5%	90	4%	246	4%		216	4%	263	5%	207	5%	175	5%	95	5%	1,563	5%
9-Hammond/Slidell	244	12%	261	14%	190	10%	251	11%	658	11%		587	11%	625	12%	500	13%	491	14%	214	12%	4,021	12%
Unknown	0	-	0	-	0	-	0	-	0	-		2	-	0	-	0	-	0	-	0	-	2	-

From 2011-2020, Baby Boomers diagnosed with chronic hepatitis C were primarily male (68% male compared to 32% female). Of the Baby Boomers diagnosed with chronic hepatitis C, 49% were Black and 47% were White. In 2020, Baby Boomers diagnosed with chronic hepatitis C primarily lived in the New Orleans (27%), Baton Rouge (19%), Hammond/Slidell (12%), and Shreveport (10%) regions.

Hepatitis C Virus Clearance Cascade

Louisiana's HCV Clearance Cascade is a valuable tool in monitoring the state's progress toward hepatitis C elimination. All people with a reported positive diagnostic test, should have appropriate follow-up testing to determine active HCV status, i.e. a positive HCV antibody test should be followed up with an HCV RNA test. Everyone with a positive HCV RNA test should complete treatment, followed by additional HCV RNA testing to confirm successful cure. Enhanced follow-up may be needed for people who do not have evidence of cure/clearance of HCV.



From January 1, 2019 through December 31, 2019, there were 23,777 people reported to the health department with a positive HCV diagnostic test (includes HCV antibody, HCV RNA, and HCV genotype tests). Of the 23,777 people reported with a positive diagnostic test, 80% (18,968/23,777) had appropriate follow-up testing completed (had a HCV RNA test following a positive HCV antibody test). Of people with appropriate follow up testing, 76% (14,463/18,968) were HCV RNA positive indicating current infection with HCV, and 24% (4,505/14,463) were HCV RNA negative indicating no current infection. Of the 14,463 people with current infection, 40% (5,854/14,463) had a subsequent negative HCV RNA test reported indicating successful cure/clearance. There were 320 people who had additional positive HCV RNA tests reported after a negative HCV RNA test indicating incomplete treatment, treatment failure, viral breakthrough or reinfection.

HCV Clearance Cascade Definitions

Ever Infected: Includes all individuals with a positive diagnostic HCV test (HCV antibody, HCV RNA, and HCV genotype) reported to the health department, collected from January 1, 2019 through December 31, 2019. Any individuals known to be living outside the jurisdiction or deceased as of December 31, 2020 are excluded.

HCV RNA Test Performed:

HCV RNA test reported/performed (Dark Blue): Includes all individuals with an HCV RNA test performed January 1, 2019 through December 31, 2020.

HCV RNA test not reported/performed (Light Blue): Includes all individuals without an HCV RNA test performed January 1, 2019 through December 31, 2020.

Initial Infection:

Initial HCV infection present (Dark Blue): Includes all individuals whose initial HCV RNA test performed January 1, 2019 through December 31, 2020 was reported as positive/detected.

Initial HCV infection cured or cleared (Light Blue): Includes all individuals whose initial HCV RNA test performed January 1, 2019 through December 31, 2020 was reported as negative/not detected.

Cured/Cleared:

HCV infection cured or cleared during the cascade timeframe (Dark Blue): Includes all individuals whose initial HCV RNA test performed January 1, 2019 through December 31, 2020 was reported as positive/detected, and who had a subsequent HCV RNA performed during the time frame that was reported as negative/not detected. The cascade is unable to distinguish between cured (referring to successful treatment response) and cleared (referring to natural, spontaneous clearance).

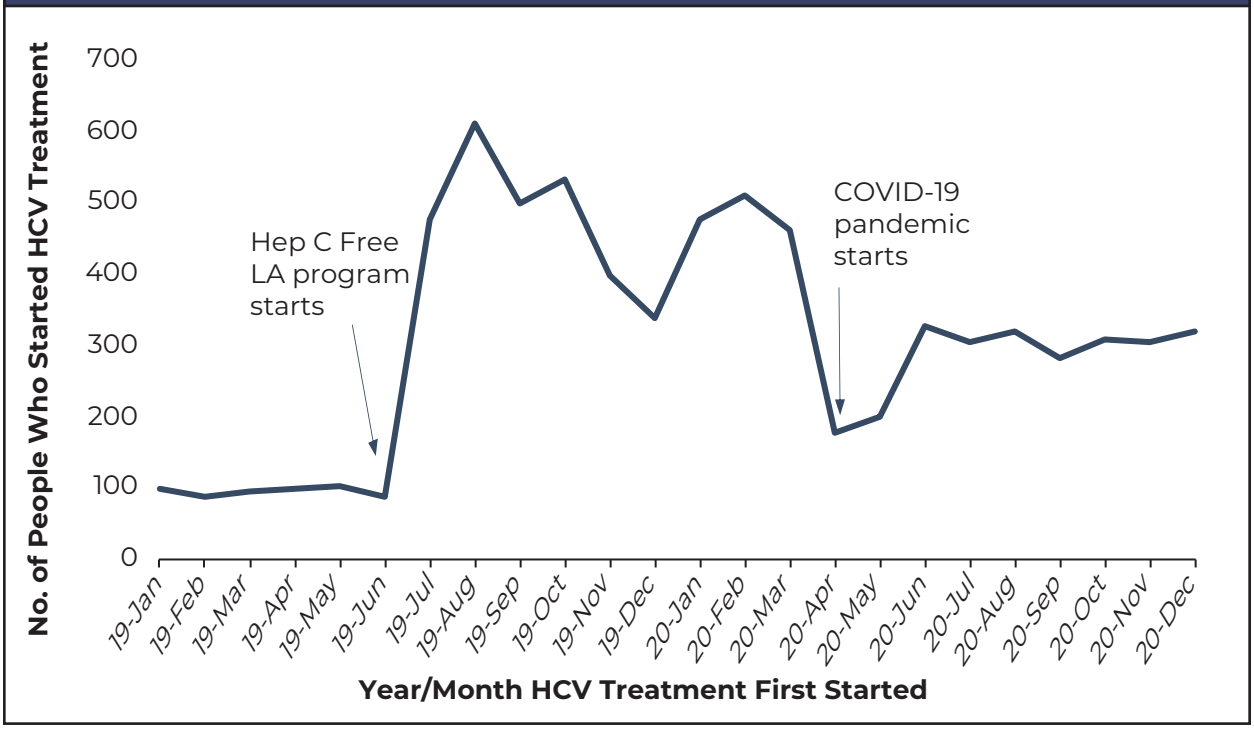
HCV infection not cured or cleared during the cascade timeframe (Light Blue): Includes all individuals whose initial HCV RNA test performed January 1, 2019 through December 31, 2020 was reported as positive/detected and either did not have additional HCV RNA testing done or if additional HCV RNA testing was completed all tests were positive/detected.

Persistent Infection/Reinfection: Includes all individuals who had a positive/detected HCV RNA test collected January 1, 2019 through December 31, 2020 after a negative/not detected HCV RNA test collected in the same time period. This includes people whose initial HCV RNA test was reported as negative/not detected as well as people whose initial HCV RNA test was positive/detected, who also had a subsequent negative/not detected HCV RNA test, followed by an additional positive/detected HCV RNA test. The cascade is unable to distinguish between persistent infection (e.g. incomplete treatment, treatment failure, viral breakthrough), and reinfection. No minimum time period is required after a negative/not detected HCV RNA test result and before a subsequent positive/detected HCV RNA test.

Progress Towards Hepatitis C Elimination

One important aspect of Louisiana's Hepatitis C Elimination Plan is to cure Louisiana's Medicaid and Department of Corrections (DOC) populations. This is done through the utilization of an innovative payment model strategy that provides unrestricted access to the generic form of the direct activing antiviral (DAA), Epclusa, for Medicaid enrollees and people in Corrections. The payment model went into effect on July 15, 2019, which was shortly after the removal of restrictions in Medicaid that limited treatment to those with severe liver damage or comorbidities such as HIV, thereby opening up treatment to even more affected individuals in these populations.

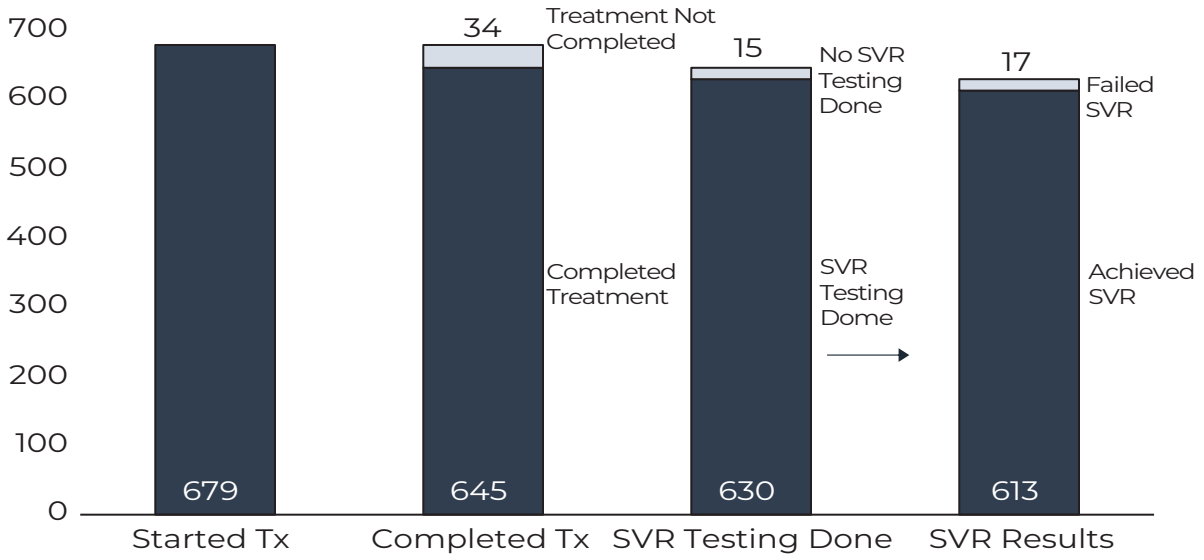
Number of People Who Started Treatment for HCV Through Medicaid/ Corrections by Year/Month Treatment First Started
2019-2020



The COVID-19 pandemic impacted progress in people being tested and treated for hepatitis C with a sharp decrease of new treatment in April, 2020. The number of people starting treatment for hepatitis C each month has not reached pre-pandemic levels. Despite these challenges, there has been great progress toward eliminating HCV in Louisiana. Between July 15, 2019 and December 31, 2020, a total of 6,802 people started treatment for hepatitis C including 679 people in Corrections, and 6,123 people enrolled in Medicaid. In the year preceding implementation of the Hep C Free LA Program, an average of 102.2 people started treatment per month for hepatitis C through Corrections and Medicaid. In the first year and a half after implementation, an average of 374.1 people started treatment per month for hepatitis C through Corrections and Medicaid.

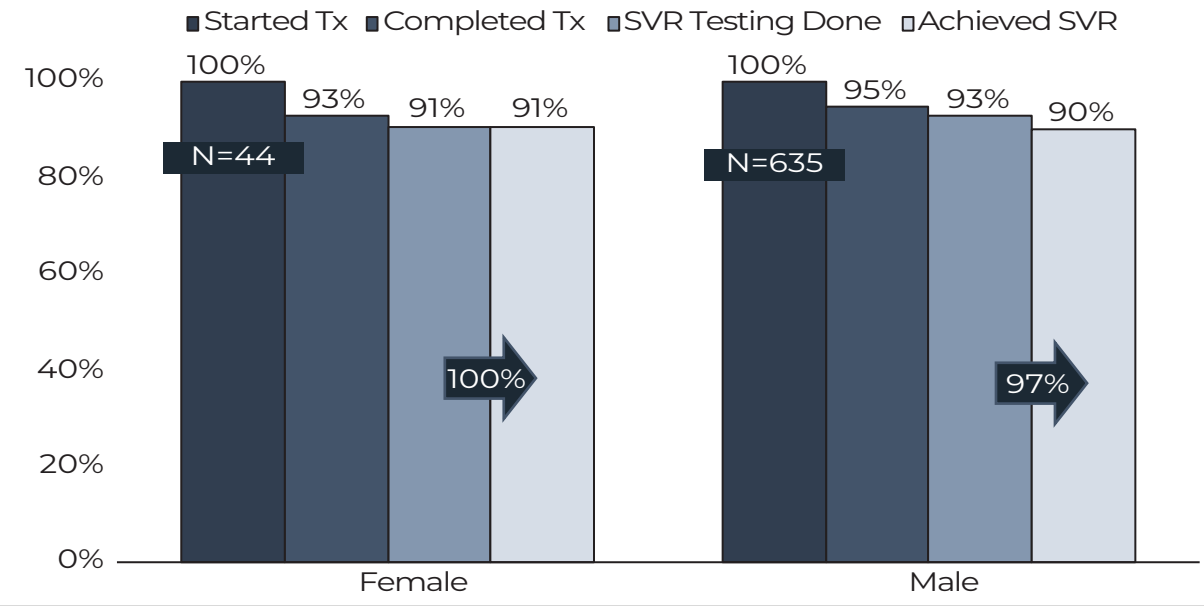
Progress Towards Elimination in People Who Are Incarcerated

People Treated in DOC by Treatment Completion and Monitoring of SVR
January 1, 2020-December 31, 2020



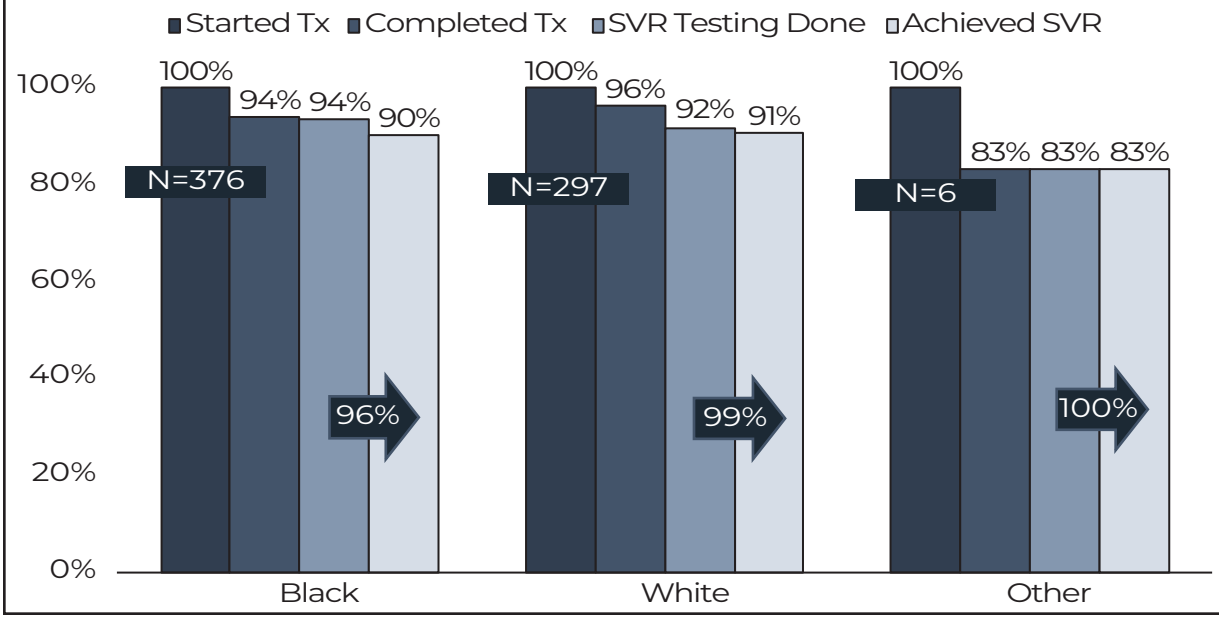
Of the 679 incarcerated individuals who initiated treatment, 95% (645/679) completed treatment, 93% (630/679) had an HCV RNA test done to assess sustained virologic response (SVR), and 90% (613/679) achieved SVR (defined as a negative HCV RNA test 4 or more weeks post-treatment completion). Of people who had an HCV RNA test performed 4 or more weeks after treatment completion, 97% (613/630) achieved SVR.

People Treated in Corrections by Treatment Completion and Monitoring of SVR by Birth Sex
January 1, 2020-December 31, 2020



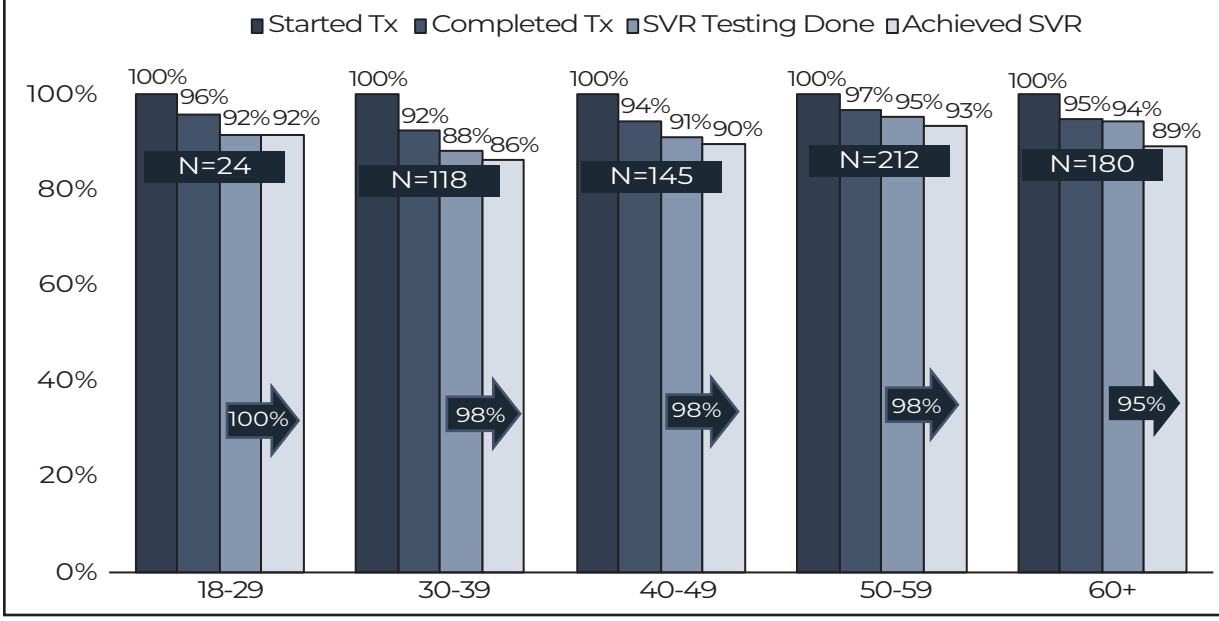
Among incarcerated individuals, males had slightly higher treatment completion rates compared to females (95% and 93% respectively), slightly more males had SVR testing done (93% versus 91%), but 90% of males achieved SVR compared to 91% of females. Of the people who had SVR testing done, 97% of males achieved SVR and 100% of females achieved SVR.

People Treated in Corrections by Treatment Completion and Monitoring of SVR by Race/Ethnicity
January 1, 2020-December 31, 2020



Of people who were incarcerated, White people had slightly higher treatment completion rates compared to Black people (96% and 94% respectively), slightly more Black people had SVR testing done (94% versus 92%), and 91% of White people achieved SVR compared to 90% of Black people. Of the people who had SVR testing done, 96% of Black people achieved SVR and 99% of White people achieved SVR.

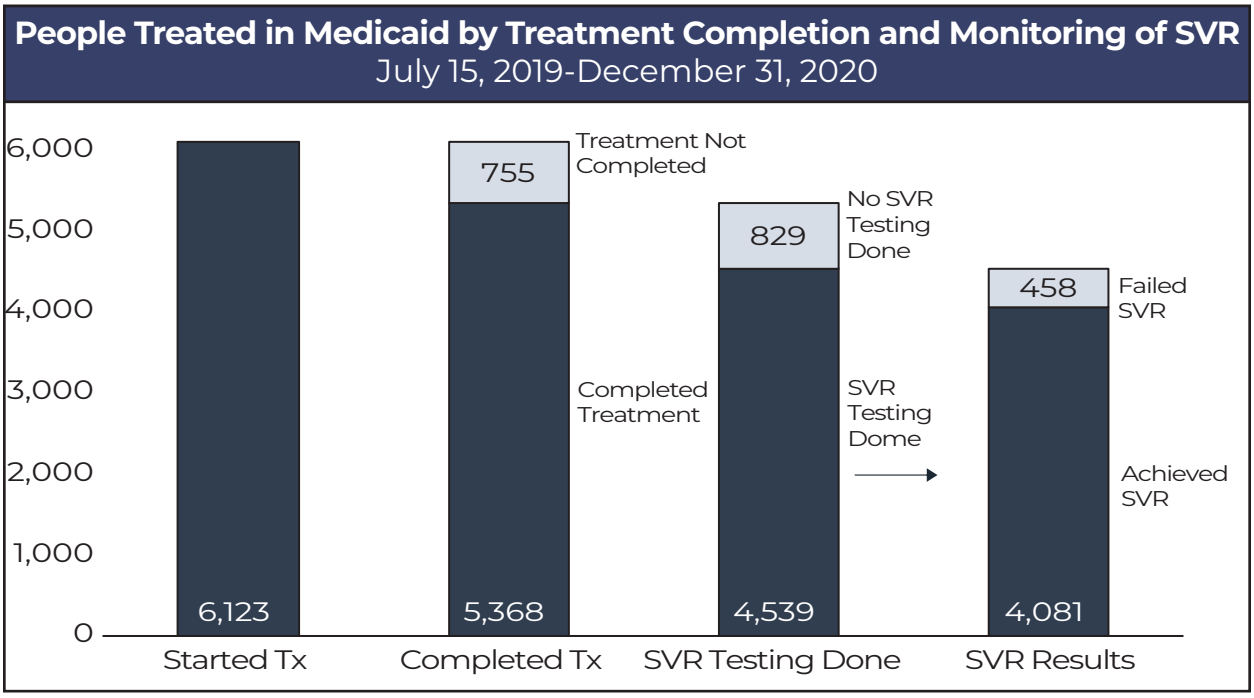
People Treated in Corrections by Treatment Completion and Monitoring of SVR by Age Group
January 1, 2020-December 31, 2020



For people who accessed treatment while incarcerated, the age of the individual did not appear to impact treatment completion or the likelihood of having SVR testing done. Treatment completion

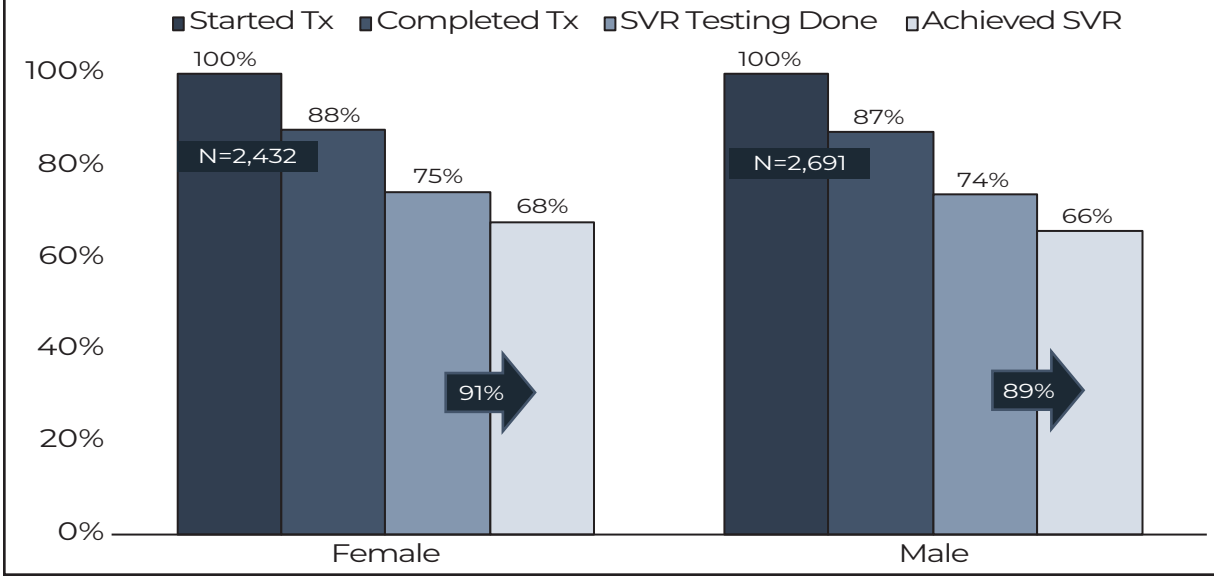
ranged from 97% for people 50-59 years old to 92% for those 30-39 years old. People 50-59 were most likely to have SVR testing done at 95%, while people 30-39 were least likely to have SVR testing done at 88%. Of people who started treatment, those 50-59 had the highest rate of achieving cure at 93%, while 30-39 year olds had the lowest rate of achieving cure at 86%. The age of the persons had an observed negative impact on SVR achievement, among people who had SVR testing. Of the people with SVR testing reported, 100% of 18-29 year olds achieved SVR, 98% of 30-59 year olds achieved SVR, and 95% of people 60 years and older achieved SVR.

Progress Towards Elimination in People Who Are Enrolled in Medicaid



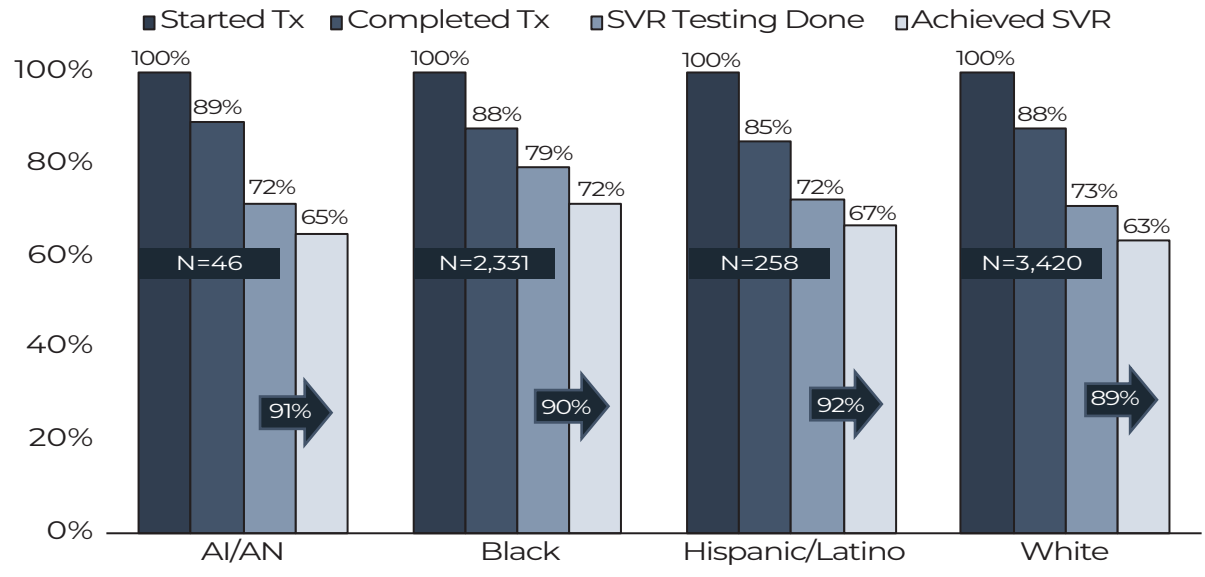
Of the 6,123 Medicaid enrollees who initiated treatment, 88% (5,368/6,123) completed treatment, 74% (4,539/6,123) had an HCV RNA test done to assess SVR, and 67% (4,081/6,123) achieved SVR (defined as a negative HCV RNA test 4 or more weeks post-treatment completion). Of people who had an HCV RNA test performed 4 or more weeks after treatment completion, 90% (4,081/4,539) achieved SVR.

People Treated in Medicaid by Treatment Completion and Monitoring of SVR by Birth Sex
July 15, 2019-December 31, 2020



For Medicaid enrollees, females and males had similar treatment completion rates (88% and 87% respectively), slightly more females had SVR testing done (75% versus 74%), and 68% of females achieved SVR compared to 66% of males. Of the people who had SVR testing done, 91% of females achieved SVR and 89% of males achieved SVR.

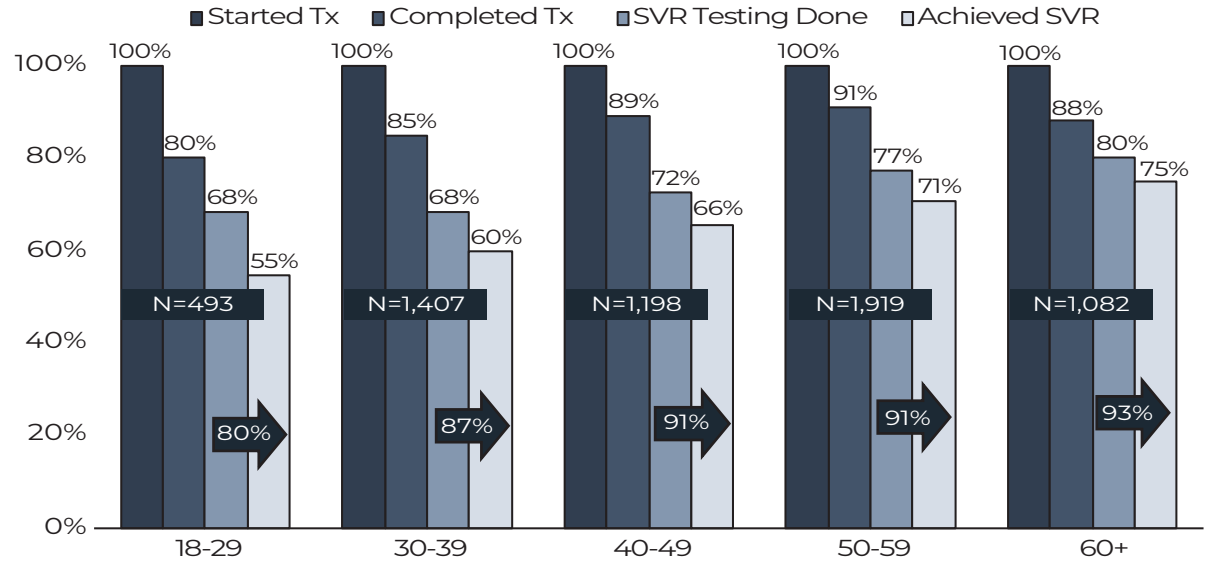
People Treated in Medicaid by Treatment Completion and Monitoring of SVR by Race/Ethnicity
July 15, 2019-December 31, 2020



Of Medicaid enrollees, American Indian/Alaskan Native (AI/AN) people had the highest treatment completion rates at 89%, followed by Black (88%) and White people (88%). Hispanic/Latinx people had the lowest percentage of treatment completion, 85%. A higher proportion of Black people had SVR testing done than other race/ethnic groups (79% for Black people, 72% for AI/AN people, 72% for Hispanic/Latinx people, and 71% for White people). When SVR testing was completed, 92% of Hispanic/Latinx people

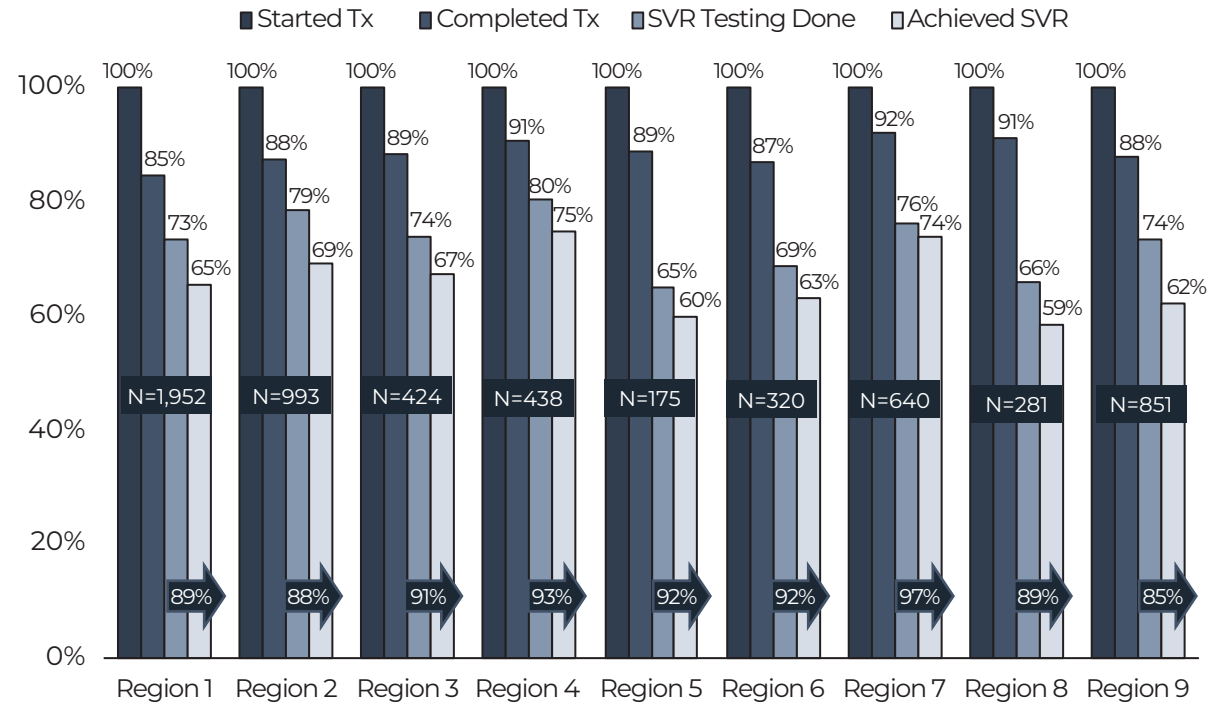
achieved SVR followed by 91% of AI/AN people, 90% of Black people and 90% of White people.

People Treated in Medicaid by Treatment Completion and Monitoring of SVR by Age Group
July 15, 2019-December 31, 2020



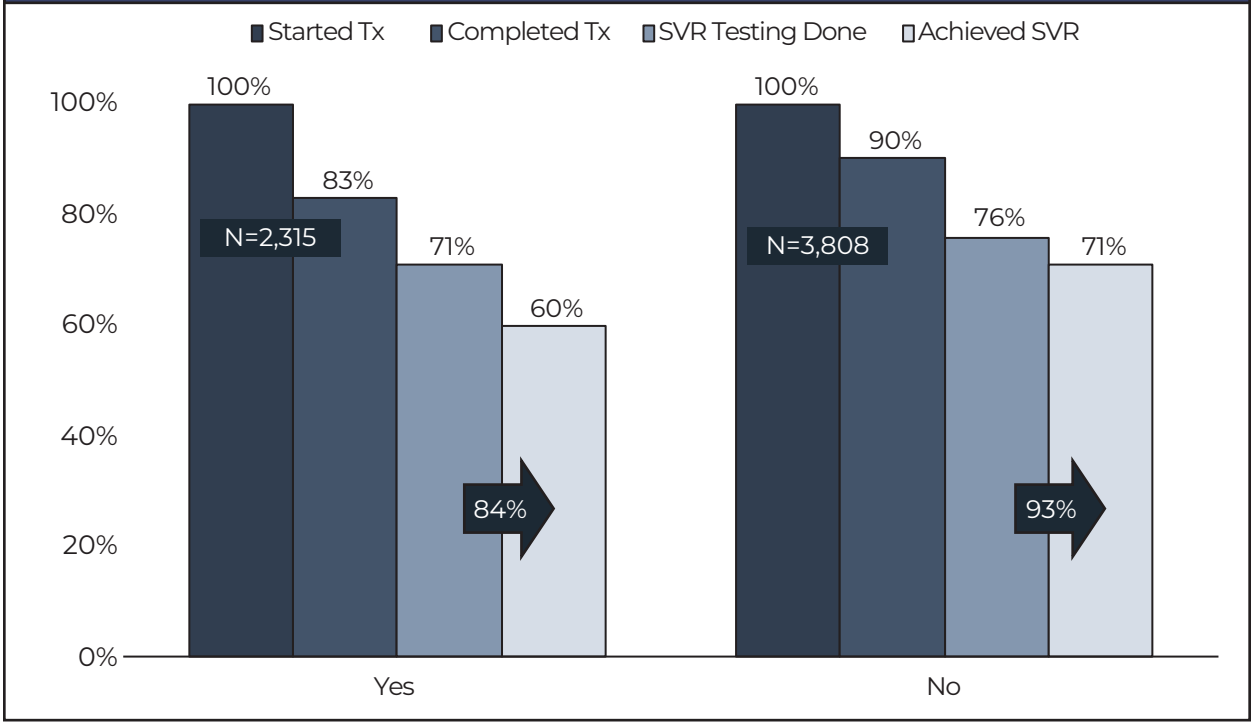
Younger people were less likely to complete treatment, complete SVR testing, or achieve SVR. Only 80% of people 18-29 years old completed treatment, compared to 88% of people 60 years and older. Additionally, only 68% of people 18-29 had SVR testing done compared to 80% of people 60 years and older. When SVR testing was done, 80% of people 18-29 achieved SVR compared to 93% of people 60 years and older.

People Treated in Medicaid by Treatment Completion and Monitoring of SVR by Region
July 15, 2019-December 31, 2020



The public health regions with the highest proportion of people completing treatment were Shreveport (92%), Lafayette (91%) and Monroe (91%). Regions with the lowest proportion of people completing treatment were New Orleans (85%) and Alexandria (87%). Regions with the highest rates of SVR testing completion were Lafayette (80%) and Baton Rouge (79%). When SVR testing was completed, Shreveport (97%), Lafayette (93%), Alexandria (92%) and Lake Charles (92%) had the highest proportion of people achieving SVR. Comparatively, Hammond/Slidell (85%), Baton Rouge (88%), New Orleans (89%) and Monroe (89%) had lower rates of people achieving SVR, among those who had a SVR test conducted.

People Treated in Medicaid by Treatment Completion and Monitoring of SVR by Opioid Use Disorder
July 15, 2019-December 31, 2020



Medicaid enrollees with documentation of opioid use disorder (OUD) were less likely to complete treatment than those without documentation of OUD (83% versus 90%). People with OUD were also less likely to have SVR testing done (71% versus 76%), and less likely to achieve SVR (60% versus 71%). Of the people who had SVR testing done, 93% of people without documentation of OUD achieved SVR compared to 84% of people with documentation of OUD.

The most common risk factor for HCV infection in the United States is injection drug use (IUD), which also accounts for the majority of new HCV infections.[45] Even though people with documentation of OUD in Louisiana were less likely to complete treatment than those without documentation, the majority of those with OUD still completed treatment and achieved SVR. Therefore, it is important to continue to target and encourage those with OUD to get tested and initiate treatment.

Despite some common but unfounded opinions against treating HCV infected individuals with OUD, there is strong evidence across research that show people who inject drugs still follow and complete treatment and have low rates of reinfection.[46-48] This result is also demonstrated in the Louisiana Medicaid population. In addition, research has shown that combining HCV treatment with needle exchange and opioid agonist therapy programs is important in decreasing the burden of HCV disease in this population.[49] Scaling up HCV treatment and other harm reduction programs for people who inject drugs, is a vital step towards eliminating the HCV epidemic in Louisiana.

Chapter 3
Ongoing Initiatives and Next Steps

Louisiana Hepatitis C Subscription Model and Elimination Program

Recognizing the morbidity and mortality caused by hepatitis C, the Louisiana Department of Health (LDH) prioritized the public health crisis and established an HCV Elimination Program accompanied by a statewide elimination plan that outlined expanded access to curative treatment to affected people. The plan focused on eliminating hepatitis C in the state's Medicaid and Corrections populations, and then expanding elimination to additional populations throughout the state. The plan was made possible through an innovative payment model strategy that provides unrestricted access to the generic form of the DAA Epclusa for Medicaid enrollees and people in Corrections over a 5-year contract period from 2019-2024 with an annual expenditure cap. The payment model went into effect July 14, 2019, shortly after the removal of restrictions that limited treatment for Medicaid enrollees. To ensure targets are met, the following complementary strategies are being implemented with the payment model to ensure the unrestricted supply of DAAs reach intended populations:

Expand Provider Capacity to Treat Hepatitis C
Train primary care providers to diagnose and treat hepatitis C and refer for advanced liver disease, cancer, and substance use disorders;

Educate Public on Availability of Cure and Mobilize Priority Populations for Screenings
Mobilize high-risk populations for screening and treatment through media campaign;

Expand HCV Screening and Expedited Linkage to HCV Cure
Partner with health care providers across the State to screen high-risk populations and ensure individuals with hepatitis C are linked to treating providers;

Strengthen HCV Surveillance to Link Persons Previously Diagnosed to Treatment
Upgrade LDH's hepatitis C surveillance system to support timely identification of infected individuals;

Implement Harm Reduction and Complementary Treatment Strategies
Prevent new or reinfections through syringe service programs and treatment for opioid use disorder;

Extend Elimination Efforts to All Populations within the State
Work with partners—commercial insurers, health systems, and entities serving the uninsured—to reach all Louisianans and achieve statewide elimination.

Regional Provider Trainings

To improve access to HCV treatment to patients statewide, LDH removed restrictions surrounding who can prescribe HCV medications and developed a continuing medical education (CME) accredited training series with the goal that more primary care providers cure hepatitis C in people living with the disease. These no-cost trainings are intended for all prescribers (MDs, DOs, NPs, PAs), and other staff who would like to be a part of elimination efforts in Louisiana. The LDH HCV Provider Curriculum comprises three parts:

HCV Provider Training
The first step in training consists of a single one hour HCV Provider Training aimed at preparing prescribers to identify and treat people living with HCV. These trainings are designed to provide a background on the hepatitis C epidemic facing our community, an introduction to the HCV

elimination plan, and a walk through of the streamlined screening and treatment algorithm so all prescribers can feel confident in providing the cure for hepatitis C to their clients. This training is eligible for 1 hour of CME and is available to any prescribers. These trainings are ideal for one on one or small groups so that we can directly address individual questions or concerns from prescribers.

HCV Elimination Project ECHO Series

In addition to the onsite trainings offered by the LDH provider network coordinators, there is the HCV Project Echo series. These sessions are short 30-minute didactic lessons followed by clinical case discussions offered on a weekly basis. Following the model of Project ECHO, these courses are designed to provide specialist level education for primary care providers. They also serve as a supportive community to assist in any challenges or questions that arise in treatment. Each hour of these sessions are also available for CME credits.

Project ECHO H.A.R.M.- Hepatitis, Addiction, and stigma Reduction in Medicine

This monthly series focuses on harm reduction and overcoming the social barriers many people who use substances face. By inviting expert speakers in addiction medicine, harm reduction policies, and sociology, we hope to inspire a new generation of harm reduction allies as well as inform evidence based care in medicine for people who use substances. This series is also available for CME credits for those who attend.

HCV Champions Training

These trainings are designed for those that want to become more experienced providers through an intensive class called HCV Champions Training. This provides a more in-depth analysis of more complicated HCV care and consists of a half day didactic, followed by weekly online case review sessions to improve provider comfort in treating more advanced cases. These trainings are being held in every region of the state and these sessions are eligible for 3.75 CME hours. In order to become a HCV Champion a provider must attend the regional HCV Champions half-day trainings, attend 8 Project Echo sessions (presenting at least 5 cases) and complete a culminating exam.

Linkage to Care

Numerous studies have demonstrated the benefits of integrated, coordinated care and case management to address both infectious diseases and substance use disorders (SUD) in people who inject drugs.[50,51] SHHP, in partnership with the Office of Behavioral Health (OBH) and Bureau of Community Preparedness, has dedicated funds to build a community program to improve access to SUD treatment for people who are seeking these services. The Linkage to Treatment Program integrates SAMHSA's Screening, Brief Intervention, and Referral to Treatment (SBIRT) tool with HCV linkage to treatment and counseling activities provided by SHHP. Funds are assigned to hire additional linkage staff. These staff function as patient navigators, reaching out to Medicaid-enrolled clients who may have an untreated HCV infection via phone, email, and/or home visits to offer case management and linkage to treatment services. After consenting to participate in the program, clients are screened for SUD with the SBIRT tool as well as assessed for the need of social supportive services and HCV testing and/or treatment. Clients are provided assistance with accessing the various services they need including harm reduction and SSPs. Clients who appropriately score on the SBIRT are offered direct linkage to SUD recovery and treatment services through the resources available via their Medicaid insurance plan, including the OBH and local human service districts' treatment providers. Clients are also offered linkage to HCV treatment providers covered by their Medicaid plan. If a client chooses not to enroll in the Linkage to Treatment Program, they are still provided information on SUD treatment, harm reduction (include naloxone access) and HCV testing and treatment services in their community.

Harm Reduction Programs

The *Louisiana Hepatitis C Elimination Plan: 2019-2024* and the *2019 Louisiana Opioid Response Plan* both outline comprehensive and overlapping strategies to reduce the negative impacts of

drug use including hepatitis C, HIV, addiction, overdose and related deaths. Both plans incorporate harm reduction interventions to meet people "where they are". The fundamental tenets of social justice – good health and equal value for all – offer both a framework and a rationale for this work. Both behavioral health and public health disciplines seek to reduce disparities and promote equity in quality of care and health status/outcomes. The OPH and OBH have collaborated on efforts to identify the specific needs of people who use drugs in Louisiana and to maximize their access to resources (e.g., sterile injection supplies, access to social and medical services) with the aims to increase linkage to care, provide naloxone to all operating syringe service programs (SSPs), assist all operating SSPs with capacity building, implement opt-out HCV/HIV testing in local governing entity behavioral health care systems, cross train providers on Medication Assisted Therapy (MAT) and HCV, develop regional harm reduction work groups, and expand SSP authorization across the state.

Community-level prevention and harm reduction measures depend on public trust in available services and information to empower people to reduce harm and improve their health and wellness. OPH and OBH are working systematically to build a stronger referral network statewide to ensure people who inject drugs are able to access integrated and comprehensive care and reduce the burden of associated infectious diseases. These LDH Offices are supporting culturally competent engagement with people who inject drugs through the utilization of evidence-based medical and behavioral therapies, HCV screening and treatment, syringe service programs, and grassroots engagement. By increasing HCV testing among people who inject drugs, treating those who are positive, preventing new infections, and providing additional support services, Louisiana will make significant strides toward eliminating HCV.

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