New York State
2022 Hepatitis B and C Annual Report and Data Products

NASTAD VLC
February 21, 2024
Viral Hepatitis at New York State Department of Health

- New York State (excluding New York City)
- Organization of viral hepatitis work in New York State

New York State Department of Health

AIDS Institute
- Bureau of Hepatitis Health Care and Epidemiology
  - Hep C prevention, testing, linkage to care program
  - Hep B and C Surveillance

Center for Community Health
- Division of Vaccine Excellence
  - Perinatal Hepatitis B
- Bureau of Communicable Disease
  - Hepatitis A

May 2022
Data Products

https://www.health.ny.gov/diseases/communicable/hepatitis/hepatitis_c/providers/surveillance_reports.htm

https://hcvdashboardny.org/
Creating the New York State Hepatitis B and C Annual Report

- Data products
- Core Team/collaboration
- Style
- Software
- New York State Hepatitis C Elimination Dashboard
New York State Hepatitis B and C Annual Report Content

- Hepatitis B and C epidemiologic data
- Hepatitis B perinatal prevention data
- Hepatitis C laboratory-based clearance cascade
- Hepatitis C programmatic data
- Hepatitis B and C mortality trends
- Hepatitis C among incarcerated persons
- Hepatitis C Behavioral Risk Factor Surveillance System (BRFSS) data
Hepatitis B Surveillance Data

Figure 1.2: Newly Reported Hepatitis B Cases by Year, NYS (excl. NYC), 2012-2022

In 2017, hepatitis B cases peaked and continued to decrease until 2020. In 2022, cases have increased, nearly matching the peak in 2017.

Hepatitis B cases increased by 10.3% from 2021 to 2022.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>14.5</td>
</tr>
<tr>
<td>2013</td>
<td>15.9</td>
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<tr>
<td>2014</td>
<td>16.2</td>
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<tr>
<td>2015</td>
<td>16.2</td>
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<tr>
<td>2016</td>
<td>16.6</td>
</tr>
<tr>
<td>2017</td>
<td>17.5</td>
</tr>
<tr>
<td>2018</td>
<td>16.4</td>
</tr>
<tr>
<td>2019</td>
<td>16.4</td>
</tr>
<tr>
<td>2020</td>
<td>13.6</td>
</tr>
<tr>
<td>2021</td>
<td>15.8</td>
</tr>
<tr>
<td>2022</td>
<td>17.4</td>
</tr>
</tbody>
</table>

- Newly reported cases of hepatitis B
- Rate per 100,000 pop
Hepatitis B Surveillance Data

Case Counts By County

In 2022, the highest number of newly reported hepatitis B cases were in Nassau (549) and Suffolk (247) counties. Westchester (224), Erie (197), and Monroe (91) counties also reported a high number of cases.

Case Rates By County

In 2022, the highest rates of newly reported hepatitis B cases per 100,000 population were in Nassau (39.4) and Chautauqua (36.1).
Hepatitis B Programmatic Data

Figure 8.1: Perinatal Hepatitis B Prevention Program 2021 Birth Cohort
- HBG & HepB Vaccine: 97% completed, 3% not completed
- + Completed Vaccine Series by 8 Months: 85% completed, 15% not completed
- + Completed Vaccine Series by 12 Months: 96% completed, 4% not completed
- + Completed PVST: 82% completed, 18% not completed

Figure 8.2: Hepatitis B Birth Dose Vaccination Rate (Percent), by Region, 2022
- Statewide (excluding NYC): 84%
- Capital District Region: 88%
- Central Region: 86%
- Metropolitan Region: 79%
- Western Region: 87%
Hepatitis C Surveillance Data

By Age and Sex

Figure 10.2: Newly Reported Hepatitis C Cases by Sex and Age Group, NYS (excl. NYC), 2022

In 2022, 62.6% of all newly reported hepatitis C cases were male.

Figure 10.3: Number of Newly Reported Hepatitis C Cases Among Females and Percent Among Those Aged 15-44, NYS (excl. NYC), 2012-2022

Although the number of newly reported cases of hepatitis C among females has declined since 2016, the percentage of females who are of reproductive age (e.g., between the ages of 15 and 44) has remained stable at approximately 60% from 2016 to 2022.

Highlighting Shift in Age Distribution

Figure 11.1: Percent of Newly Reported Hepatitis C Cases Less than 40 Years of Age and Newly Reported Cases Born Between 1945-1965, 2012-2022

Baby Boomers
(Born 1945-1965)

53% → 26%

in 2012
in 2022

of all newly reported hepatitis C cases

People Aged <40 years

32% → 47%

in 2012
in 2022

of all newly reported hepatitis C cases

In 2012, 52.6% of all newly reported cases of hepatitis C were reported in Baby Boomers (people born between 1945-1965) while those less than 40 years of age accounted for 32.4% of all cases. In 2022, 47.1% of all newly reported cases of hepatitis C were in those under 40 years of age while only 25.8% were in the Baby Boomer population.
Hepatitis C Surveillance Data

Figure 9.1: Newly Reported Acute, Chronic, and Perinatal Hepatitis C Cases, NYS (excl. NYC), 2022

Chronic hepatitis C represents individuals that were likely infected years before initial report while acute hepatitis C indicates more recent infection. Perinatal hepatitis C is classified as infants < 3 years old that were infected in-utero or at the time of birth from a pregnant person living with hepatitis C.

Confirmed hepatitis C cases received a positive RNA result after a positive antibody screening test, which indicates active infection, while probable hepatitis C cases indicate persons who had a positive antibody screening test but did not have RNA testing performed. Reflex testing increases complete and timely diagnosis, which allows for care and treatment to be initiated sooner.

Newly reported hepatitis C:
- 79.1% confirmed
- 20.9% probable
Hepatitis C Surveillance Data
By Geographic Area

Figure 12.1: Newly Reported Hepatitis C Cases and Rates per 100,000 pop. by NYS Region (excl. NYC), 2022

Figure 12.2: Newly Reported Hepatitis C Cases, Rate Per 100,000 pop., by Region, NYS (excl. NYC), 2022

In 2022, NY Penn/Binghamton (53.1), Central NY/Syracuse (40.7), and Mid-Hudson Valley (37.9) had the highest case rates per 100,000 population.
Hepatitis C Surveillance Data

Key Risk Factors

In 2022, 48% of newly reported cases of acute hepatitis C indicated injection drug use as a risk factor. When analyzing cases with known risk factors, 81% of newly reported acute cases indicated injection drug use.

Additionally, 37% of newly reported cases of acute hepatitis C indicated other, non-injection drug use as a risk factor. When analyzing cases with known risk factors, all newly reported acute cases indicated other, non-injection drug use.

In 2022, 22% of newly reported cases of acute hepatitis C indicated having close contact with a person with hepatitis C. When analyzing cases with known risk factors, 60% of newly reported acute cases indicated having close contact with a person with hepatitis C.

Figure 15.1: Newly Reported Acute Hepatitis C Cases, Risk Factor Information, NYS (excl. NYC), 2022

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Including cases without risk factor information</th>
<th>Excluding cases without risk factor information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injection drug use</td>
<td>41%</td>
<td>81%</td>
</tr>
<tr>
<td>Other, non-injection drug use</td>
<td>11%</td>
<td>100%</td>
</tr>
<tr>
<td>Close Contact with a person with hepatitis C</td>
<td>63%</td>
<td>60%</td>
</tr>
<tr>
<td>Incarceration</td>
<td>15%</td>
<td>46%</td>
</tr>
<tr>
<td>Underwent hemodialysis</td>
<td>22%</td>
<td>54%</td>
</tr>
<tr>
<td>Treated for sexually transmitted infection</td>
<td>63%</td>
<td>3%</td>
</tr>
<tr>
<td>Worked in public safety/ medical field</td>
<td>63%</td>
<td>21%</td>
</tr>
<tr>
<td>Diabetic</td>
<td>63%</td>
<td>8%</td>
</tr>
<tr>
<td>MSM (Men who have sex with men)</td>
<td>63%</td>
<td>11%</td>
</tr>
<tr>
<td>&gt;1 sex partner</td>
<td>63%</td>
<td>12%</td>
</tr>
<tr>
<td>Tattoo or piercing</td>
<td>48%</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>48%</td>
<td>50%</td>
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<tr>
<td></td>
<td>48%</td>
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<tr>
<td></td>
<td>48%</td>
<td>50%</td>
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</tbody>
</table>
Hepatitis C Laboratory-Based Clearance Cascade

In 2021, the Centers for Disease Control and Prevention (CDC) developed a method to use laboratory results to track the numbers and percentages of people who are tested for and cured of hepatitis C. The results of this HCV Clearance Cascade are shown below.

Figure 17.1: Laboratory-Based Hepatitis C Virus Clearance Cascade, NYS (excl. NYC), 2016-2021

Of 109,371 individuals in NYS (excluding NYC) with any positive hepatitis C test, indicating either past or current infection with hepatitis C from 2016 to 2020, 91.7% received viral testing in the follow-up period. 57.8% of those receiving viral testing had a positive RNA test (indicating initial infection). Of those initially infected, 56.8% individuals were cured or cleared their infection and among those, 9.7% had a persistent infection or experienced reinfection.
Hepatitis C Programmatic Data – Patient Demographics

**Figure 20.1: Patient Navigation Program, Patient Demographics, 2018-2021**

- **Age**
  - ≤ 29: 22.0%
  - 30-39: 46.0%
  - 40-49: 20.6%
  - 50-59: 8.7%
  - 60-69: 2.7%

- **Gender**
  - Man/Boy: 65.6%
  - Woman/Girl: 33.5%
  - Non-Binary person: 0.2%
  - Transgender Man/Boy: 0.2%
  - Chose not to respond: 0.4%

- **Race/Ethnicity**
  - White: 77.9%
  - Hispanic: 11.5%
  - Black: 6.9%
  - Native American/Alaskan Native: 2.4%
  - Hawaiian/Pacific Islander: 0.7%
  - Asian: 0.2%
  - Other Race/Ethnicity: 0.2%

**From 2018-2021**

- **Navigation Programs**: 7
- **Clients Enrolled**: 806

- 95.5% have a history of injection drug use
- 16.9% are in a residential drug treatment facility
- 12.8% are homeless, living on the street or in a shelter
- 1.4% are in a correctional facility (jail/prison)
- 89.8% are insured by Medicaid
Hepatitis C Programmatic Data - Outcomes

Figure 20.4: Patient Navigation Program, HCV Care Continuum: 2018-2021*

- Enrolled: 806
- RNA tested: 691
- Diagnosed: 614
- Linked to Care: 467
- Started Treatment: 384
- Completed Treatment: 332
- Assessed for Cure: 242
- Cured: 227

*Includes patients enrolled any time from Nov. 1, 2018 through Oct. 31, 2021 and reflects treatment status as of Nov. 23, 2021.
Hepatitis Mortality Trends

Figure 23.2: Age-Adjusted Hepatitis C Death Rates by Race/Ethnicity, New York State: 1999-2021

Among race/ethnicities with 20 or more hepatitis C deaths per year, age-adjusted death rates were highest in the non-Hispanic Black and Hispanic populations.

When available, yearly age-adjusted death rates in the Asian/Pacific Islander community were consistently lower than death rates in the White population.

- Yearly age-adjusted rates in the Native American population were unavailable for all years. However, from 2012-2020, the average age-adjusted death rate in this group was 2.8/100,000 pop.
- The age-adjusted death rate in the Native American population was lower than the rates in the Hispanic and non-Hispanic Black population (6.5/100,000 pop. and 6.4/100,000 pop. respectively), but higher than the rates in the non-Hispanic White and Asian/Pacific Islander population (2.2/100,000 pop. and 1.3/100,000 pop. respectively).

Source: CDC Wonder Multiple Cause of Death files ICD-10 Codes: Hep. C (B17.1, B18.2)
When yearly deaths are below 20, age-adjusted death rates are unavailable.
Due to small numbers, unable to show year-by-year data for Native Americans.
Hepatitis C in State Correctional Settings

In 2022:

- There were 163 newly reported cases of hepatitis C in the New York State Department of Corrections and Community Supervision (NYSDOCCS).
- The rate of newly reported hepatitis C cases was 521.5 per 100,000 individuals.
- When risk factor information was available, injection drug use was the most common risk factor for newly reported cases.

Figure 18.1: Newly Reported Hepatitis C Cases and Rates by Year, NYSDOCCS, 2012-2022

Between 2012-2022, 4,750 cases of hepatitis C were first diagnosed in the NYSDOCCS and reported to the NYSDOH. The rate and the total number of newly reported cases peaked in 2014 and decreased in the following years, reaching a ten year low in 2020, corresponding to the start of the COVID-19 pandemic.
Hepatitis C in State Correctional Settings

Figure A.1 DOCCS Seroprevalence Study: HCV Antibody Seroprevalence Among Newly Incarcerated Persons, 2000-2019

- Percent Positive
- Male and Female Prevalence Rates

- 2000: Male 13.4%, Female 23.1%
- 2003: Male 13.3%, Female 24.1%
- 2005: Male 10.4%, Female 19.4%
- 2007: Male 11.2%, Female 15.7%
- 2009: Male 9.5%, Female 14.6%
- 2012: Male 9.6%, Female 14.6%
- 2015: Male 10.3%, Female 24.2%
- 2017: Male 10.6%, Female 26.2%
- 2019: Male 11.3%, Female 29.7%
Tracking Hepatitis C Testing with BRFSS

  - Have you ever been tested for hepatitis C?
  - Has a doctor, nurse, or other health professional ever told you that you had hepatitis C?
  - Were you told you were cured and no longer have hepatitis C?
- 2019-2021 combined data presented by age, race/ethnicity, sex, insurance provider published in 2021 report.
## Hepatitis C Surveillance Data
### Race and Ethnicity

<table>
<thead>
<tr>
<th>Race</th>
<th>Persons &lt;40 Years of Age</th>
<th>Persons 40+ Years of Age</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Cases</td>
<td>Percent of Cases</td>
<td>Number of Cases</td>
</tr>
<tr>
<td>White</td>
<td>923</td>
<td>58.1%</td>
<td>915</td>
</tr>
<tr>
<td>Black</td>
<td>107</td>
<td>6.7%</td>
<td>171</td>
</tr>
<tr>
<td>American Indian</td>
<td>14</td>
<td>0.9%</td>
<td>13</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>13</td>
<td>0.8%</td>
<td>26</td>
</tr>
<tr>
<td>Other</td>
<td>114</td>
<td>7.2%</td>
<td>143</td>
</tr>
<tr>
<td>Unknown</td>
<td>419</td>
<td>26.4%</td>
<td>514</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Persons &lt;40 Years of Age</th>
<th>Persons 40+ Years of Age</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Cases</td>
<td>Percent of Cases</td>
<td>Number of Cases</td>
</tr>
<tr>
<td>Hispanic</td>
<td>72</td>
<td>4.5%</td>
<td>69</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>694</td>
<td>43.6%</td>
<td>654</td>
</tr>
<tr>
<td>Unknown</td>
<td>824</td>
<td>51.8%</td>
<td>1059</td>
</tr>
</tbody>
</table>
Hepatitis C Regional Summaries

Hepatitis C Regional Summaries

Western NY/Buffalo Region at a Glance
- 547 new cases
- Cases decreased 9% since 2021
- 4th highest case rate in NYS
- Chautauqua County had the highest case rate in NYS
- 61% male
- 42% <40 years of age
- 86% of cases <40 have history of IDU
- 54% of female cases are of reproductive age

In 2022, Erie County had the largest number of cases in the Western NY/Buffalo region. Case rates per 100,000 were highest in Chautauqua County.

- Erie: 29.6
- Niagara: 49.0
- Chautauqua: 65.1
- Cattaraugus: 41.6
- Allegany: 32.3
- Genesee: 25.7
- Wyoming: 24.8
- Orleans: 14.9

Regional Rate 35.2
NYS Rate 29.6

Hepatitis C Regional Summaries

Case rates in the Western NY/Buffalo region decreased in 2022 and remained higher than rates in New York State (excluding NYC).

Injection drug use (IDU) is a major risk factor for hepatitis C. When risk factor information was available, 72% of total newly reported cases had a history of IDU. IDU was more common among those <40 years of age than those 40+.

Hepatitis C case rates per 100,000 in the Western NY/Buffalo region were highest for females and males aged 35-39.

Newly Reported Hepatitis C
New York State (Excluding NYC), 2022

- 3,374 new case reports
- 29.6/100,000 case rate
- 257 acute cases (8%)
- 3,113 chronic cases (92%)
- 4 perinatal cases (<1%)
- 63% male
- Case rates highest in 30-34 years of age -- 78/100,000
- 60% of female cases of childbearing age

47% of people with newly reported hepatitis C were < 40 years of age, and of those* 88% have history of injection drug use (IDU)

Source: NYS DOH Communicable Disease Electronic Surveillance System. 2023
Data current as of 05/22/2023. Data are preliminary and subject to change.
* with known risk factors
Hepatitis C Diagnoses Rate
2010-2021

Numbers and rates of diagnoses from 2010-2011 may be inflated and should be interpreted with caution. See notes below.

Hcvdashboardny.org
Dissemination

- Annual Report and Regional Summaries posted on New York State Department of Health website with multiple pathways
- Email listservs
- In-person and virtual presentations
- Press release
- New York Hepatitis Elimination Dashboard
- Social media
Media/Social Media

NEW YORK STATE DEPARTMENT OF HEALTH RELEASES HEPATITIS B AND C ANNUAL REPORT

NEWLY REPORTED ACUTE HEPATITIS B AND C CASES DECREASED IN 2022

ALBANY, N.Y. (November 22, 2023) – The New York State Department of Health today released the Hepatitis B and C Annual Report 2022, which highlights decreases in newly reported acute hepatitis B cases, hepatitis C cases, and acute hepatitis C cases from 2021 to 2022.

HEPATITIS B CASES UP 16% IN NASSAU FOR 2022, ACCORDING TO STATE DATA

DAVID OLSON | NOVEMBER 24, 2023 5:14 PM

Newsday

HEPATITIS C IN NEW YORK STATE

In 2019, there were 6,164 newly reported cases of hepatitis C (HCV) in New York State.

From 2010-2021

189,749

New Yorkers were diagnosed with hepatitis C

52% of NYers diagnosed with HCV between 2010 and 2021 are known to have cleared their infection as of 2021
Questions?

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