

INCARCERATED INDIVIDUALS

It is estimated that 18 - 30% of the 1.5 million incarcerated individuals in the United States have hepatitis C (Strick et al., 2021). The estimates fluctuate between studies because testing for HCV in incarceration facilities varies from state to state (Strick et al., 2021; AASLD, 2021). Regardless, all estimates are notably higher than the 1% prevalence rate in the general population (Bradley, 2020; CDC, 2020). Furthermore, it is estimated that 30% of all individuals living with HCV in the United States pass through an incarceration facility in a given year (Strick et al., 2021). Reflective of the general population, the most common mode of HCV transmission in incarcerated populations is through sharing non-sterile injecting equipment (Stone, 2018). While it is estimated that the rate of drug use is underreported, at the end of fiscal-year 2019, 46% of sentenced federal prisoners were serving time for a drug offense and 14% of sentenced state prisoners were serving time for a drug offense (DOJ, 2019).

Changes in the incarceration facility landscape

The past decade saw significant changes in the hepatitis C policy, procedures, and access to medications for incarceration facilities. Studies around HCV in incarceration facilities and the need to address testing and treatment has been published since the 1990s. However, key advancements in recent years increased the feasibility for incarceration facilities to treat individuals during their sentences. These include the development of direct acting antivirals (DAAs) that only require 8 - 12 weeks of treatment, medication cost reductions, and changes in state policies that allow a greater scope of medical providers to treat hepatitis C (AASLD, 2021; Strick, 2021).

The Federal Bureau of Prisons (BOP) recommends that incarceration facilities offer opt-out testing for HCV upon admission and repeat testing upon request (BOP, 2018). The opt-out strategy means that each person receives HCV testing unless an individual declines testing. If chronic hepatitis C infection is present, the person should be assessed for liver disease. CDC and HHS further acknowledge that universal testing in incarcerated populations will support hepatitis elimination efforts (Scheille, 2020; HHS, 2021). Although incarceration facilities are not required to provide treatment to persons with asymptomatic hepatitis C, screening within the incarceration facility is nonetheless a valuable tool for reaching many individuals with risk factors* for HCV who may not otherwise seek testing and a vital component of hepatitis C elimination planning across the nation (BOP, 2016; CDC, 2020; HHS, 2021).

**Risk factors include: injection drug use, receipt of tattoos or body piercings while previously incarcerated, HIV or HBV infection, blood transfusion or organ transplant prior to 1992, clotting factor transfusion prior to 1987, percutaneous exposure to blood, and hemodialysis. (CDC, 2020)*

Hepatitis C, incarceration, and Virginia

The maps below show a continued increase of HCV in Virginia. The rate of HCV increased in four out of the five Virginia regions - Southwest, Central, Northwest, and Eastern - while Northern Virginia's rates have stayed consistent. The inclusion of incarcerated individuals raises the HCV rate in the counties with incarceration facilities. See Figures 1 and 2 for a comparison of 2015 and 2019 HCV rates across Virginia that include incarcerated individuals (VEDSS, 2021). *see maps of HCV rates in Virginia excluding incarcerated individuals in the Hepatitis C Surveillance section.*

Figure 1. Map of Hepatitis C rates Virginia in 2015, including incarcerated individuals.

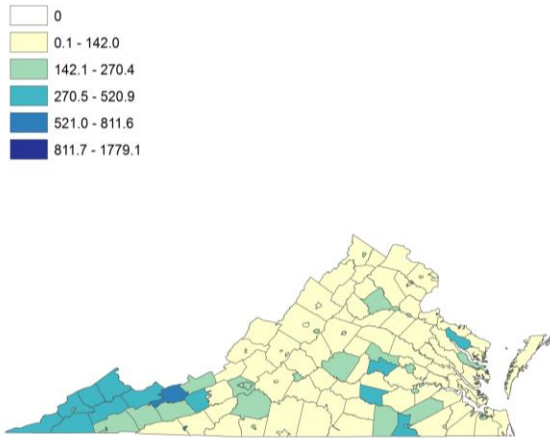
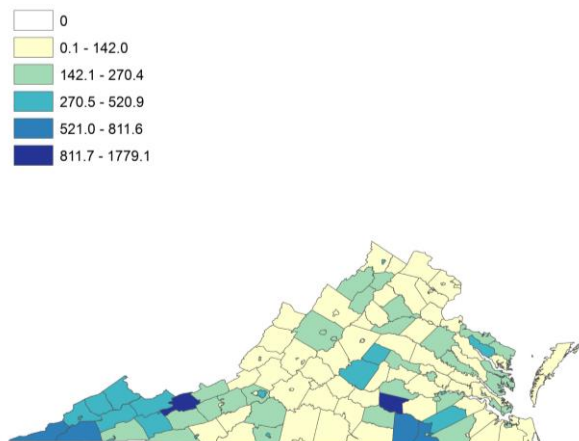


Figure 2. Map of Hepatitis C rates Virginia 2019, including incarcerated individuals.



Nearly 13% of acute and chronic hepatitis C diagnoses from 2016-2019 occurred in individuals who were incarcerated at the time of diagnosis (VEDSS, 2021). Among the 5,338 persons who were incarcerated when they tested positive for hepatitis C, approximately 74% were male. Although 8% of all incarcerated Virginians were female in 2019 (Carson, 2020), 23% of incarcerated

persons testing positive for HCV infection were female.

Even though the total number of incarcerated individuals in Virginia decreased by 1.6%, the number of reported HCV cases in incarceration facilities nearly doubled between 2015 and 2019 (Carson, 2020; VEDSS, 2021). Similar to the general population, the median age of hepatitis C diagnoses among incarcerated individuals decreased since 2011.

Virginia Department of Corrections

The Virginia Department of Corrections (DOC) made significant strides to strengthen the testing and treatment of individuals with HCV in DOC facilities. According to the internal HCV management guidelines, DOC facilities offer an opt-out testing strategy to all persons entering DOC facilities, opt-in testing for persons nearing release from incarceration, and repeat testing upon request throughout an individual's sentence. In 2020, DOC removed treatment restrictions focused on disease severity. Any individual with a diagnosis is now eligible for treatment during incarceration through DOC providers or through collaboration with Virginia Commonwealth University. This is a notable change from the previous standard of assigning a priority level of 1 - 3 to individuals based on their disease severity. Due to the number of HCV diagnoses, typically only priority groups 1 and 2 received treatment. As provider capacity expanded in recent years, the treatment restrictions were removed. Additionally, in 2019 DOC implemented a partnership with the University of Virginia to create navigation to treatment after release for individuals diagnosed with or exposed to HCV and not treated during their sentence (DOC, 2020).

CHARLI Program

The Comprehensive HIV/AIDS Resources and Linkages for Inmates (CHARLI) is a program of VDH's Division of Disease Prevention and works in cooperation with Virginia incarceration settings. The CHARLI program is available to all local and regional sites, and DOC facilities. The program consists of four components: HIV testing during incarceration; HIV/STI education during incarceration; discharge and reentry planning for people living with HIV (PLWH); and 18 months of case management for PLWH after release from incarceration. While the program is structured around the needs of PLWH, several CHARLI sites incorporate HCV testing and education due to the common risk factors of HCV and HIV. Additionally, the education and testing components of the program are available to all persons nearing release (VDH, 2020).

References

- American Association for the Study of Liver Diseases (2021). HCV Testing and Treatment in Correctional Settings. [www.hcvguidelines.org > node > page-pdf](http://www.hcvguidelines.org/node/page-pdf)
- Bradley H, Hall EW, Rosenthal EM, Sullivan PS, Ryerson AB, Rosenberg ES. Hepatitis C Virus Prevalence in 50 U.S. States and D.C. by Sex, Birth Cohort, and Race: 2013-2016. *Hepatology*. 2020 Jan 14;4(3):355-370. doi: 10.1002/hep4.1457
- Carson A (2020). Prisoners in 2019. Bureau of Justice Statistics. U.S. <https://bjs.ojp.gov/content/pub/pdf/p19.pdf>
- Department of Justice. Office of Justice Programs (2019). <https://www.bjs.gov/content/pub/pdf/p19.pdf>
- Centers for Disease and Control (2020, July 28). What is Viral Hepatitis? <https://www.cdc.gov/hepatitis/abc/index.htm>
- Federal Bureau of Prisons (2018). Evaluation and management of chronic hepatitis C virus (HCV) infection. https://www.bop.gov/resources/pdfs/012018_hcv_infection.pdf
- Health and Human Services (2021). Viral Hepatitis: National Strategic Plan, A Roadmap to Elimination for the United States. <https://www.hhs.gov/sites/default/files/Viral-Hepatitis-National-Strategic-Plan-2021-2025.pdf>
- Strick LB, Corcorran MA (2021). Treatment of HCV in a Correctional Setting. <https://www.hepatitisc.uw.edu/go/key-populations-situations/treatment-corrections/core-concept/all>
- Schillie S, Wester C, Osborne M, Wesolowski L, Ryerson A. (2020). CDC Recommendations for Hepatitis C Screening Among Adults -- United States. <https://www.cdc.gov/mmwr/volumes/69/rr/rr6902a1.htm>
- Stone J, Fraser H, Lim AG, Walker JG, Ward Z, Vickerman P. Incarceration history and risk of HIV and hepatitis C virus acquisition among people who inject drugs: a systematic review and meta-analysis. *Lancet Infect Dis*. 2018 Dec;18(12):1397-1409. doi: 10.1016/S1473-3099(18)30469-9
- Virginia Department of Corrections (2020). Guidelines for Chronic Hepatitis C Diagnosis/Management.
- Virginia Department of Health (2020, July 13). Comprehensive HIV/AIDS Resources and Linkages for Inmates. CHARLI Program. <https://www.vdh.virginia.gov/disease-prevention/charli/>
- Virginia Electronic Data Surveillance System (VEDSS) (2021). 2015-2019. Virginia Department of Health, Division of Surveillance and Investigation.