Viral Hepatitis C Surveillance Report, 2024

SAN FRANCISCO, CALIFORNIA

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INTRODUCTION

The Viral Hepatitis C Surveillance Report for 2024 presents data collected by the San Francisco Department of Public Health's (SFDPH) Viral Hepatitis Surveillance Program from January 1, 2021, through December 31, 2024, on persons who have chronic hepatitis C infection. SFDPH receives confidential disease reports containing basic demographic information from laboratories and providers, as mandated by state regulation. This information comprises core surveillance for chronic hepatitis C infection. This report provides an overview of hepatitis C infection in San Francisco (SF) based on surveillance data.

ACKNOWLEDGEMENTS

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CONTENTS

OVERVIEW OF HEPATITIS C INFECTION

Hepatitis C virus (HCV) is the most common type of viral hepatitis in the United States and is a leading cause of chronic liver disease. HCV is primarily spread through contact with infected blood. Currently, the most common mode of HCV transmission in the United States is through sharing needles, syringes, or other injection equipment. HCV can also be passed from a pregnant person to an infant during pregnancy or at birth.

Other possible, but less frequent, sources of exposure to HCV include needlestick injuries in healthcare settings, non-sterile tattooing or piercing equipment, sexual contact, and sharing personal items contaminated with infectious blood (e.g., razors, toothbrushes)[1]. There is currently no vaccine for HCV.[1]

Acute hepatitis C occurs within the first six months after exposure to HCV and can either resolve spontaneously or progress into a long-term chronic infection. More than half of the people with acute HCV infection go on to develop a chronic HCV infection. The remainder of those newly infected clear the virus on their own. Chronic HCV infection progresses slowly and over the years can lead to liver damage, cirrhosis, or liver cancer. Most people with chronic HCV infection remain asymptomatic for years.[1] Therefore, HCV screening and viral testing are crucial for diagnosis and cure. The Centers for Disease Control and Prevention (CDC) recommends universal HCV screening at least once for all adults and at least once during each pregnancy.[2, 3]

A test for HCV antibodies (anti-HCV) is recommended for an initial screening. A positive anti-HCV test indicates exposure to HCV but does not distinguish a cured or cleared infection from an active infection. To identify an active HCV infection, confirmation with a subsequent nucleic acid test (NAT) is recommended to detect the amount or presence of HCV RNA. A positive or detected HCV NAT result identifies an active HCV infection. A negative or undetectable HCV NAT result indicates a cleared or cured HCV infection. Distinguishing active infections from cured/cleared HCV infections is needed to identify people who need HCV treatment.[3, 4]

In 2014, several new direct-acting antiviral (DAA) medications became available in the United States. These treatments have minimal side effects and can cure over 95% of cases in 8 to 12 weeks.[1] Additionally, simplification of the HCV treatment protocols has broadened prescribing clinicians beyond hepatologists and other specialists to include nurse practitioners and primary care providers, expanding access to HCV treatment.[5] In California, anyone with Medi-Cal can qualify for life-saving treatment, with the exception of people with a life expectancy of less than 12 months who are not expected to be remediated by HCV therapy.[6]

For more information about HCV:
cdc.gov/hepatitis-c/
cdph.ca.gov/Programs/CID/DCDC/Pages/HepatitisC.aspx

CHRONIC HEPATITIS C CASES IN SAN FRANCISCO, 2024

CORE SURVEILLANCE DATA

The data presented in this section represent all persons who met the CDC/Council of State and Territorial Epidemiologists (CSTE) laboratory criteria for a probable or confirmed chronic HCV case and who had at least one positive HCV test reported to SFDPH in 2024.

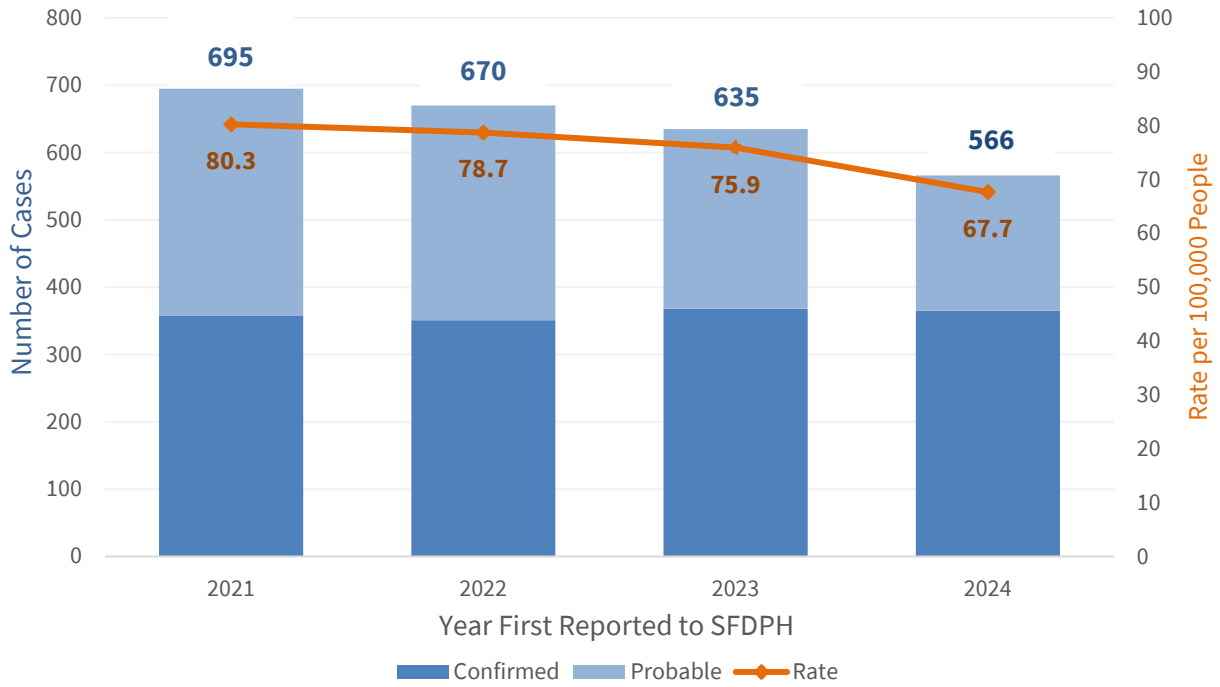
From January 1, 2024 through December 31, 2024

SFDPH received over **5,600** positive HCV laboratory reports → Reports represented **2,308** individuals with probable (274) or confirmed (2,034) chronic HCV (all reported cases) → **566 (24.5%)** of all reported cases were newly reported, of which 201 were probable and 365 were confirmed

Figure 1. Number & rate of newly reported chronic HCV cases, 2021-2024*

Number of newly reported chronic HCV cases in San Francisco in 2024: **566**

Rate of newly reported chronic HCV cases in San Francisco in 2024: **67.7** per 100,000 people



Note: The decrease in newly reported probable cases may be due to an increase in negative HCV RNA reporting. since individuals with only a positive anti-HCV and negative HCV RNA are **not considered a case**.[7] In years prior to 2024 when negative HCV RNA reporting was limited, many of these individuals would have been included as **probable cases** if the negative RNA result was NOT reported to SFDPH (see Technical Notes: Negative RNA and Positive Antibody).

* Newly reported cases are cases with positive HCV results reported to SFDPH for the first time during the reporting period, with no previously reported positive HCV result; they do not represent incidence or new infections (see Data Limitations).

>>> For more information, see Technical Notes.

Per the CDC/CSTE chronic HCV case definition:

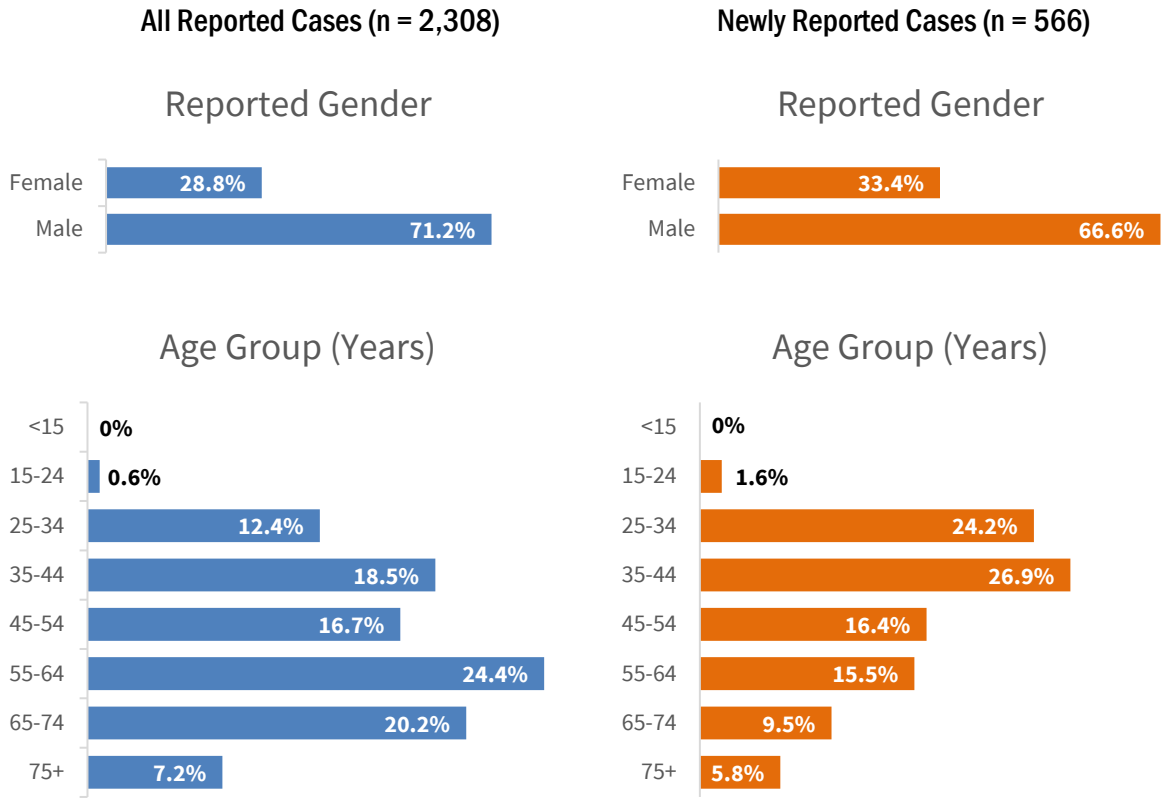
Probable: Cases reported with a positive anti-HCV, and no report of an HCV viral detection test or NAT.[7]

Confirmed: Cases reported with a positive HCV viral detection test or NAT, including qualitative and quantitative RNA or genotype testing.[7]

In 2024, **274 (11.9%)** of the 2,308 all reported cases and **201 (35.5%)** of the 566 newly reported cases were probable HCV cases. The remaining **2,034 (88.1%)** of all reported cases and **365 (64.5%)** of newly reported cases were confirmed chronic HCV cases.

Reported Gender and Age

Figure 2. Reported gender & age group of all & newly reported chronic HCV cases, 2024



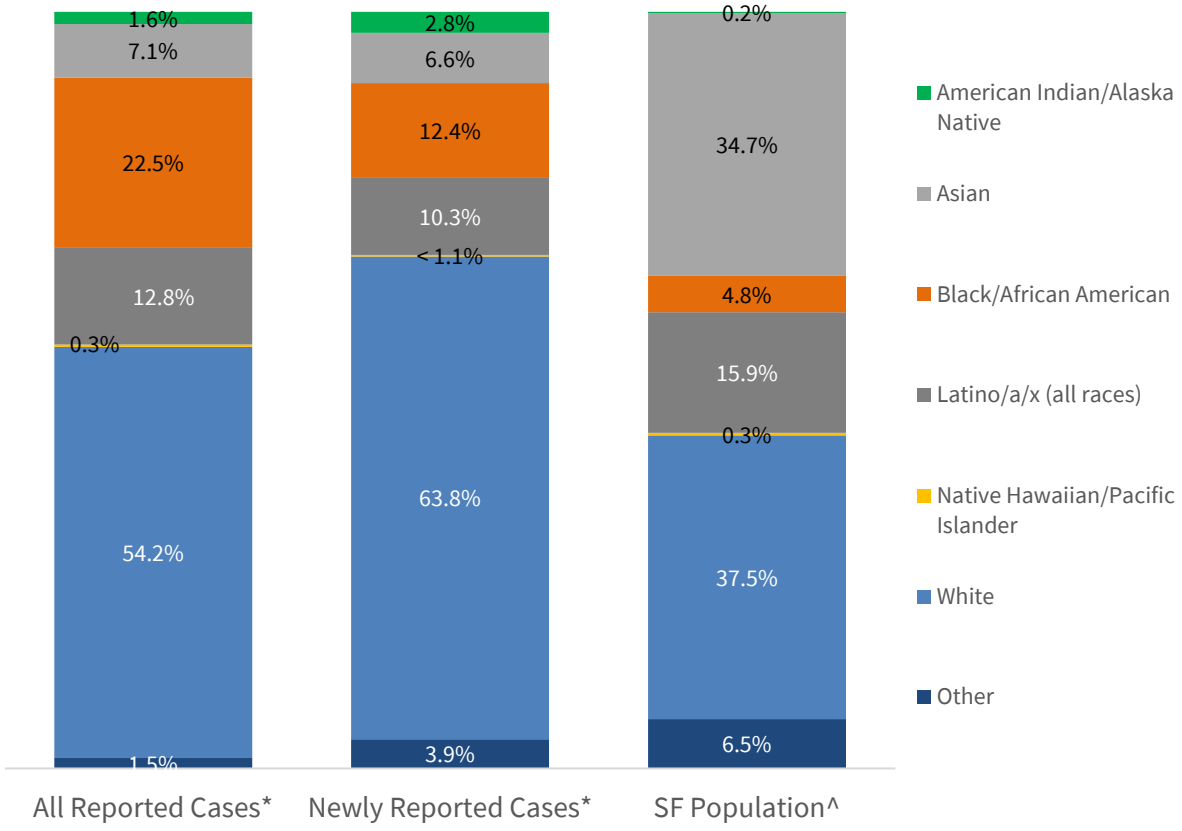
Among chronic HCV cases reported in 2024, **males** represented **more infections** for all reported cases (**71.2%**) and newly reported cases (**66.6%**). This is comparable to the latest findings on the national level.[8]

In 2024, the age groups with the **highest proportion** of cases were **55-64 years** (**24.4%**) **among all reported cases** and **35-44 years** (**26.9%**) **among newly reported cases**.

>>> For more data on HCV cases in 2024, see Table 1

Race/Ethnicity

Figure 3. Race/ethnicity of all & newly reported chronic HCV cases and the SF population, 2024



***** Race/ethnicity data is missing for 134/2308 (5.8%) of all reported and 99/566 (17.5%) of newly reported cases in 2024.
^ San Francisco Population data source: American Community Survey 5-year estimate 2019-2023[9]

In 2024, 54.2% of all reported cases and **63.8%** of newly reported cases were **White**, compared to only **37.5%** of the SF population.

Individuals who are **Black/African American** made up **22.5%** of all reported cases and 12.4% of newly reported cases, but only **4.8%** of the population in San Francisco.

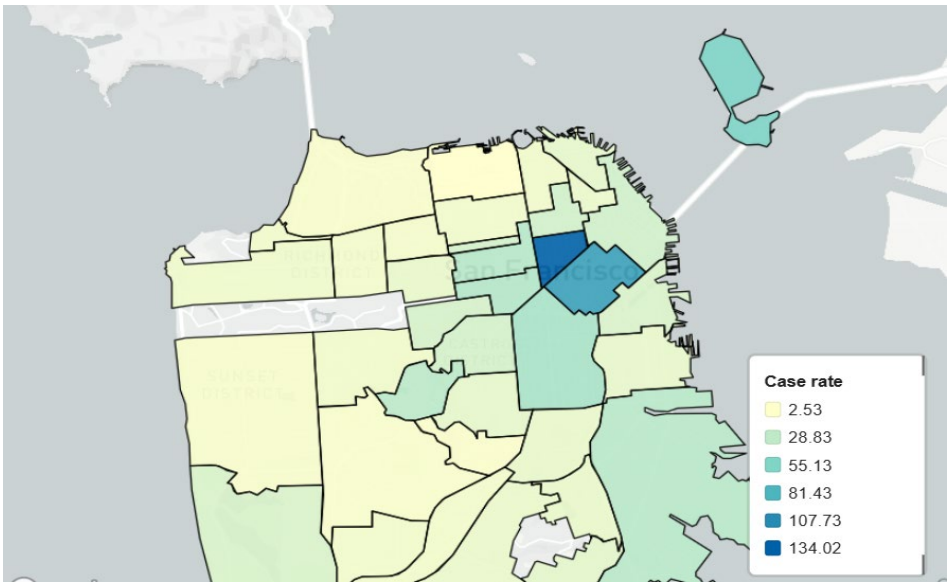
This corresponds with the most recent national findings, showing that **White and Black/African American people have among the highest rates of acute and newly reported chronic HCV**.[8]

>>> For more data on HCV cases in 2024, see Table 1

Geographic Distribution

To understand the geographic trends of all reported and newly reported chronic HCV cases in 2024, the figures below map the number of cases by neighborhood, per 10,000 population. Neighborhoods with a higher case rate are darker blue while those with a lower case rate are light yellow. These maps show that some of the neighborhoods with the lowest median household incomes are more likely to have higher rates of HCV, with the Tenderloin and Treasure Island having some of the highest poverty rates.[10]

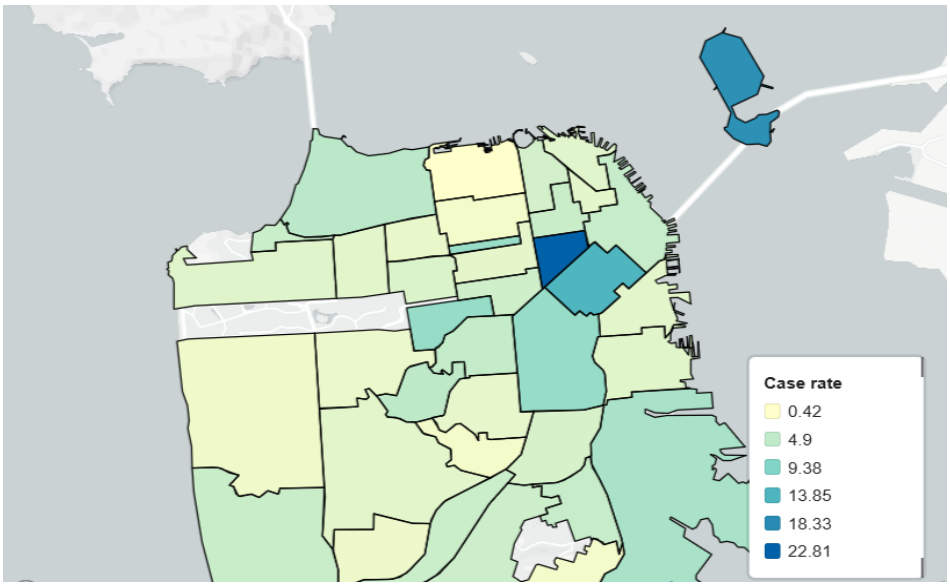
Figure 4. All reported chronic HCV cases in San Francisco by neighborhood, 2024*



Neighborhoods with highest rates of all reported chronic HCV cases (per 10,000 residents):

1. Tenderloin (134.0)
2. South of Market (94.3)
3. Treasure Island (56.6)

Figure 5. Newly reported chronic HCV cases in San Francisco by neighborhood, 2024*



Neighborhoods with highest rates of newly reported chronic HCV cases (per 10,000 residents):

1. Tenderloin (22.8)
2. Treasure Island (17.7)
3. South of Market (13.8)

**Notes:*

- 444/2308 (19.2%) of all reported and 187/566 (33.0%) of newly reported cases could not be geocoded and are not shown.
- Neighborhoods with a population of fewer than 1,000 people are not included and are greyed out.
- San Francisco Population data source: American Community Survey 5-year estimate 2019-2023.[9]

>>> For all neighborhood case counts & rates in 2024, see Tables 2 & 3

ACTIVE HCV INFECTIONS IN SAN FRANCISCO, 2021-2024

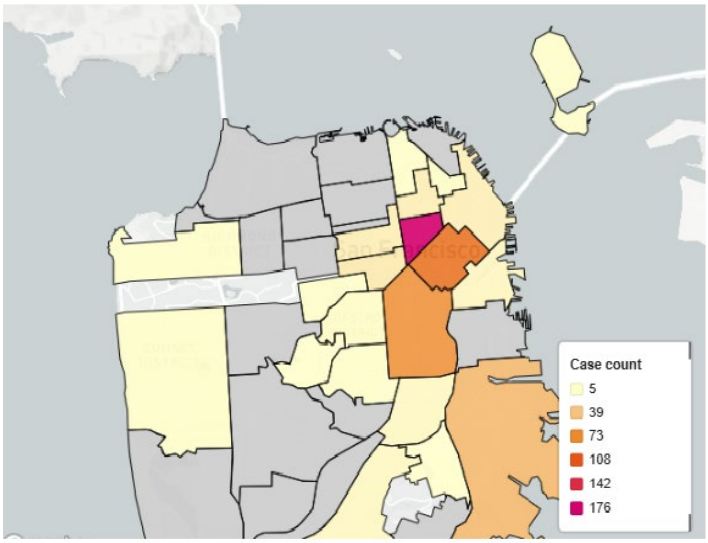
PEOPLE WITH A POSITIVE HCV VIRAL TEST AS THEIR LATEST RESULT

In a separate analysis from the Core Surveillance, people with active HCV infections as of December 2024 were identified, as indicated by a positive result on their latest reported HCV RNA test. These include people with positive HCV RNA test results reported between 2021 and 2024, regardless of when they were first reported.

Geographic Distribution

Neighborhood-level case counts in San Francisco of active infections are displayed below. Neighborhoods with larger numbers of people with active HCV infections appear in magenta, and neighborhoods with fewer than 100 people appear in orange or yellow. Neighborhoods with fewer than five cases are shown in grey.

Figure 6. Neighborhood-level distribution of people with active HCV infections



Top 3 neighborhoods with people with active HCV infections:

1. Tenderloin (**176 people**)
2. South of Market (**86 people**)
3. Mission (**67 people**)

*Notes:

- Counts of people were used instead of rates, since the underlying population who was served by the reporting facilities could not be estimated.
- Some data on active infections were linked to commercial buildings (e.g., long-term homes). Therefore, not all addresses represent residential addresses.
- The map does not include addresses of 329/890 (37.0%) people. These addresses could not be geocoded.
- People included here represent those with test results from facilities which have been reporting negative HCV RNA results to SFDPH since 2021.
- Counts are not shown for neighborhoods with fewer than five people or for neighborhoods with a population fewer than 1,000 people.

Counts of active HCV infections in this map include people whose latest HCV viral test result was positive/ "detected" as of December 31, 2024, using a subset of cases between 2021 – 2024.

>>> For more information, see Technical Notes & Table 4

HEPATITIS C CLEARANCE CASCADE, 2021-2024

HEPATITIS C CLEARANCE CASCADE FOR PEOPLE IN SAN FRANCISCO, 2021 – 2024

To measure progress towards the hepatitis C elimination goals, established by the U.S. Department of Health and Human Services (U.S. DHHS), the CDC developed a standardized laboratory results-based hepatitis C clearance cascade. [11, 12] Although the first HCV clearance cascade for San Francisco was reported in the Viral Hepatitis C Surveillance Report, 2023, it differed from the CDC's methodology. Therefore, it could not be compared to the national HCV clearance cascade. The HCV clearance cascade presented here is fully aligned with the CDC's methodology at all stages of the cascade.[12] Due to the changes in the methodology between the cascades in 2023 and 2024, findings from the two cascades are not comparable to each other.

Individuals included in the cascade had a positive HCV laboratory result reported to SFDPH between January 1, 2021, and December 31, 2023, from facilities that were fully reporting HCV RNA negative results to SFDPH. The cascade included 4,464 people who were ever infected with HCV between January 1, 2021, and December 31, 2023 (ever infected period). Assessment through the cascade stages extended through December 31, 2024. This period (January 1, 2021 – December 31, 2024) covered an additional 12 months beyond the ever-infected period.

Follow the definitions below to understand each stage of the HCV clearance cascade (reported in the bar charts as 'Yes'):

- **Ever infected** – All individuals with any positive/ "detected" HCV test (anti-HCV, RNA, detectable genotype, or core antigen) performed from the starting point (January 1, 2021) through the end of the ever-infected period (December 31, 2023).[12]
- **Viral testing** – All individuals who have an HCV viral test performed during the follow-up period (January 1, 2021 - December 31, 2024), regardless of the result.[12]
- **Initial infection** – All individuals whose initial HCV viral test result performed during the follow-up period (January 1, 2021 - December 31, 2024) was "detected".[12]
- **Cured or cleared** – All individuals where a subsequent HCV viral test result "not detected" was performed during the follow-up period (January 1, 2021 - December 31, 2024). ***The cascade is unable to distinguish between cured and cleared***.[12]
- **Persistent infection/reinfection** – All cured/cleared individuals where a negative/ "not detected" result was followed by an HCV viral test result positive/ "detected". ***There is no minimum time period after an HCV viral negative/ "not detected" test result (cured or cleared) and before a subsequent HCV viral positive/ "detected" test result occurs to qualify as a persistent infection or reinfection.***[12]

Additional information can be found in the Technical Notes.

Summary Findings: HCV Clearance Cascade, 2021 - 2024

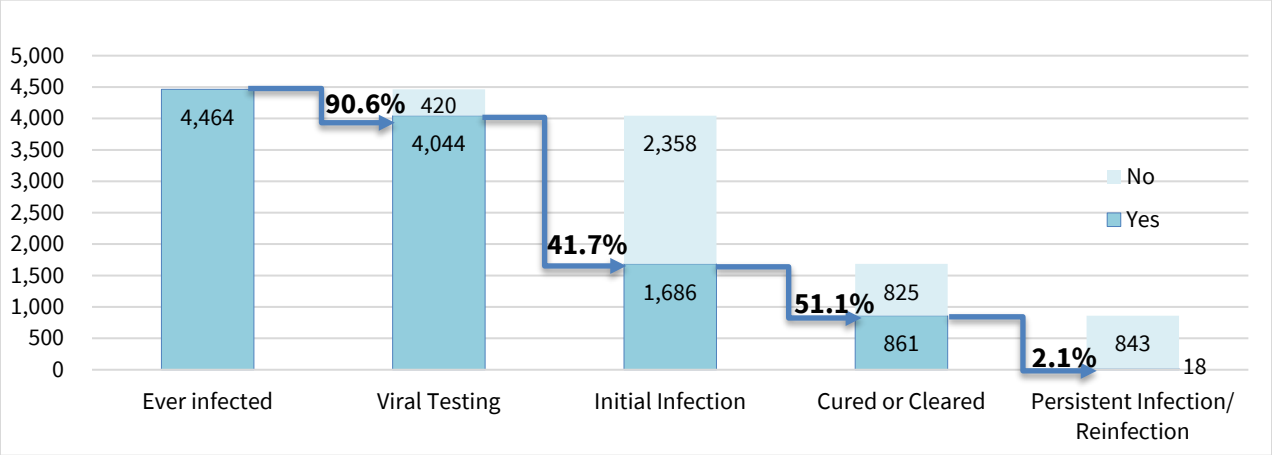
Figure 7. Summary of findings from the laboratory results-based HCV clearance cascade, 2021 – 2024

91% → **42%** → **51%** → **2%**

of people who were ever infected[12] **received viral testing for HCV RNA**	of people who received viral testing for HCV RNA **had an initial infection**[12]	of people with an initial infection **were cured or cleared**[12] **of HCV***	of people who were cured or cleared **had a persistent infection or reinfection**[12] *

The cascade is unable to distinguish between cured and cleared*. The cascade is also **unable to distinguish between persistent infection (e.g., incomplete treatment, treatment failure, viral breakthrough), **reinfection**, or false positive reports (rare). **For simplicity and consistency with the CDC's methodology, there is no minimum time period** after an HCV viral negative/ "not detected" test result (cured or cleared) and before a subsequent HCV viral positive/ "detected" test result occurs **to qualify as a persistent infection or reinfection**.

Figure 8. Laboratory results-based HCV clearance cascade, 2021 – 2024



***Note:* All percentages are based on the previous cascade stage**

As of December 31, 2024:

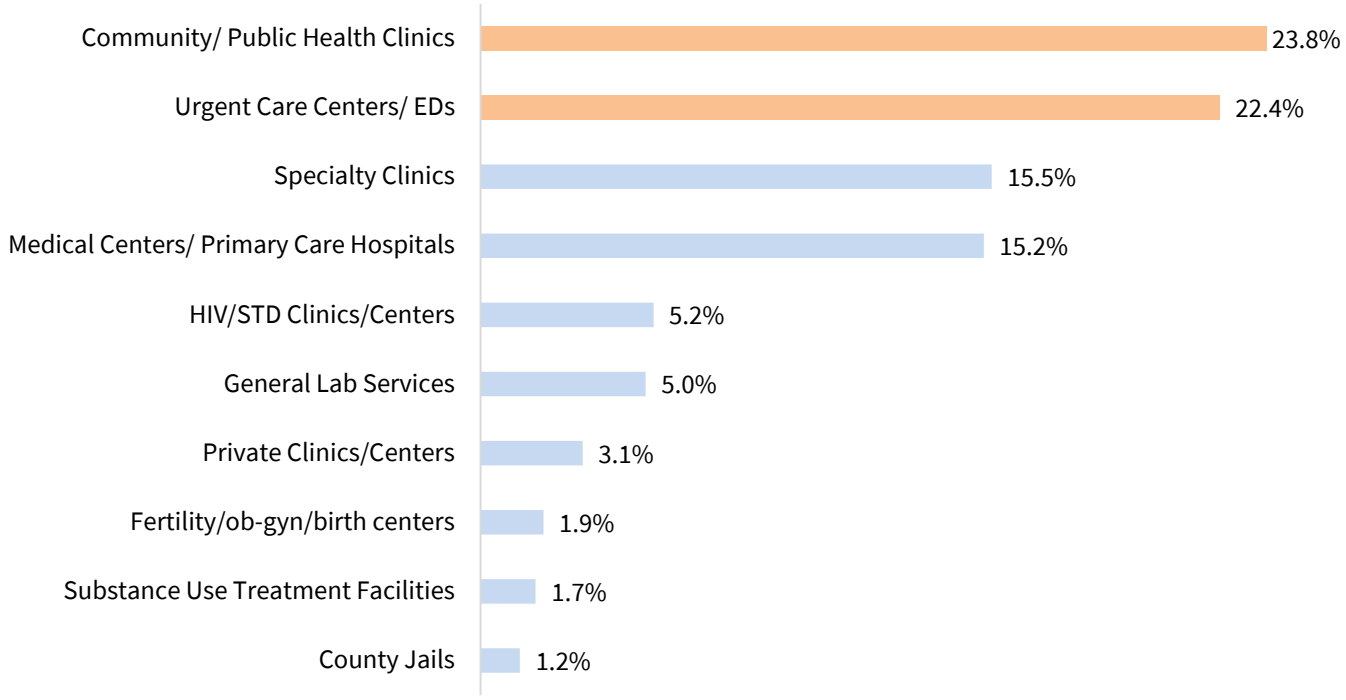
Approximately **51%** of people initially infected with HCV **were cured or cleared.** This proportion was a **few percentage points** from the 2025 U.S. DHHS's **elimination goal** of 58%.

A total of 420 **(9.4%) ever infected** people did not **receive viral testing for HCV RNA**. More information about the type of **healthcare sites where they received a positive anti-HCV test result** can be found in **Figures 9.**

HCV Clearance Cascade for People with No Viral Testing by Testing Site Types

Figure 9. Antibody testing site types for ever infected people without viral testing for HCV RNA, 2021 – 2024*

**Note:* Testing sites reported for 21 people (5.0%) could not be classified by type of site and are not included in the bar chart.

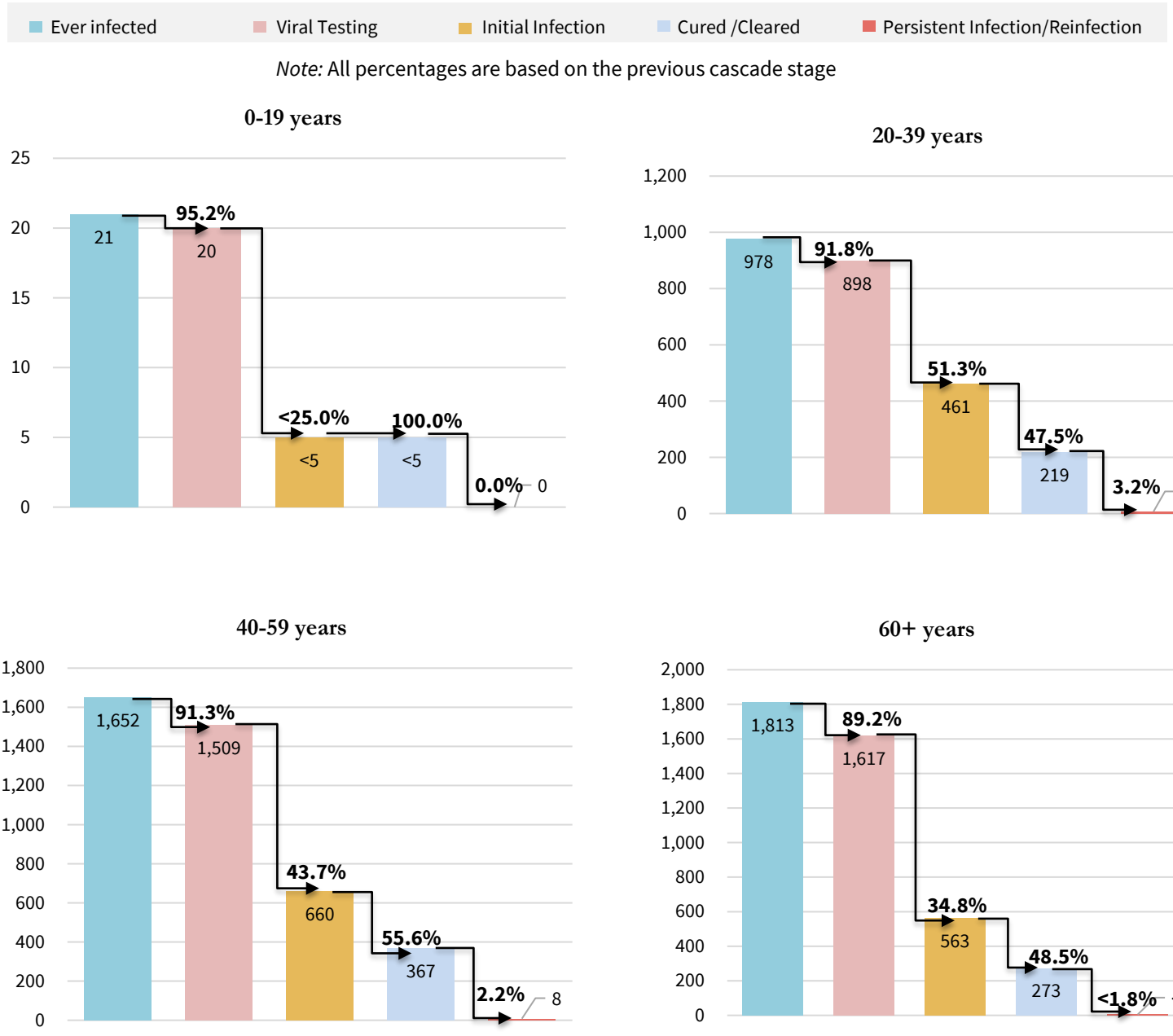


More than 46% (194/420) of the people without viral testing for HCV RNA **received their HCV antibody test at a Community/Public Health Clinic, Urgent Care Center, or at an Emergency Department**.

People who received a viral test result before 2021 but not between 2021 – 2024 and people who never received a viral test were also included in the analysis. Both scenarios could indicate a missed opportunity in identifying an active HCV infection or the performance of an unnecessary or redundant anti-HCV test.

HCV Clearance Cascade by Age Group

Figure 10. HCV clearance cascade by age group, 2021 – 2024

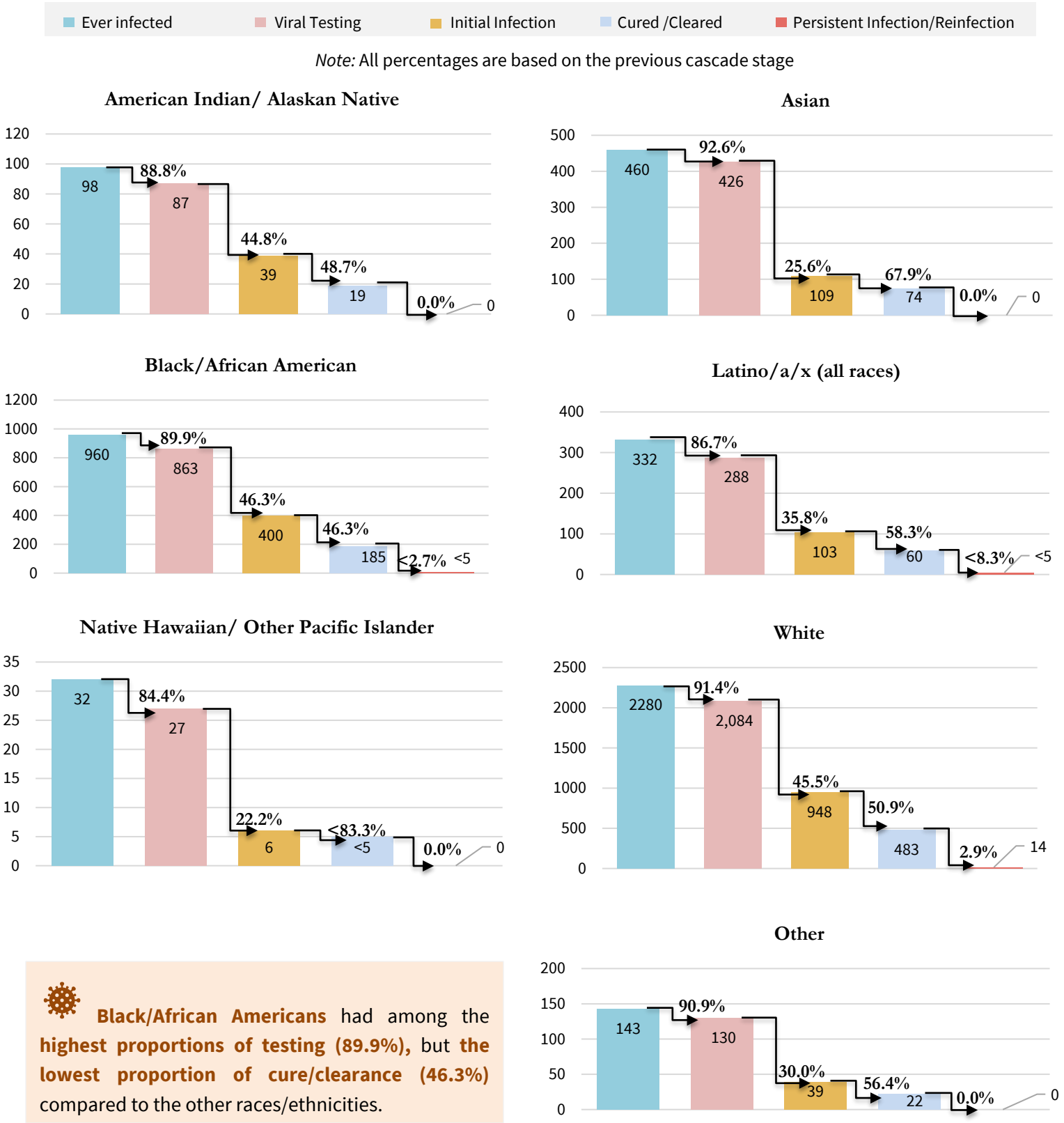


People aged 20-39 years old and 60+ years old had among the **lowest proportions of cure/clearance.** HCV RNA testing among people **aged 60+ years** was **the lowest** compared to the other age groups.

>>> For more information, see Technical Notes & Table 5

HCV Clearance Cascade by Race/Ethnicity

Figure 11. HCV clearance cascade by race/ethnicity, 2021 – 2024



Black/African Americans had among the **highest proportions of testing (89.9%), but the lowest proportion of cure/clearance (46.3%)** compared to the other races/ethnicities.

*Note: Race/ethnicity data was missing for 159/4,464 (3.6%) cases.

>>> For more information, see Technical Notes & Table 5

HCV Clearance Cascade by Reported Gender

Figure 12. HCV clearance cascade among females, 2021– 2024

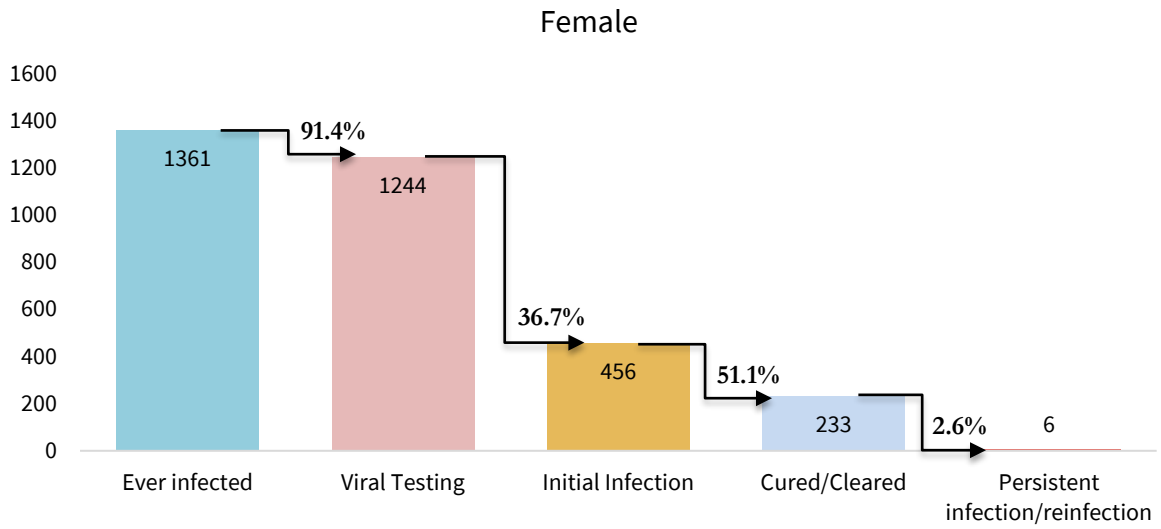
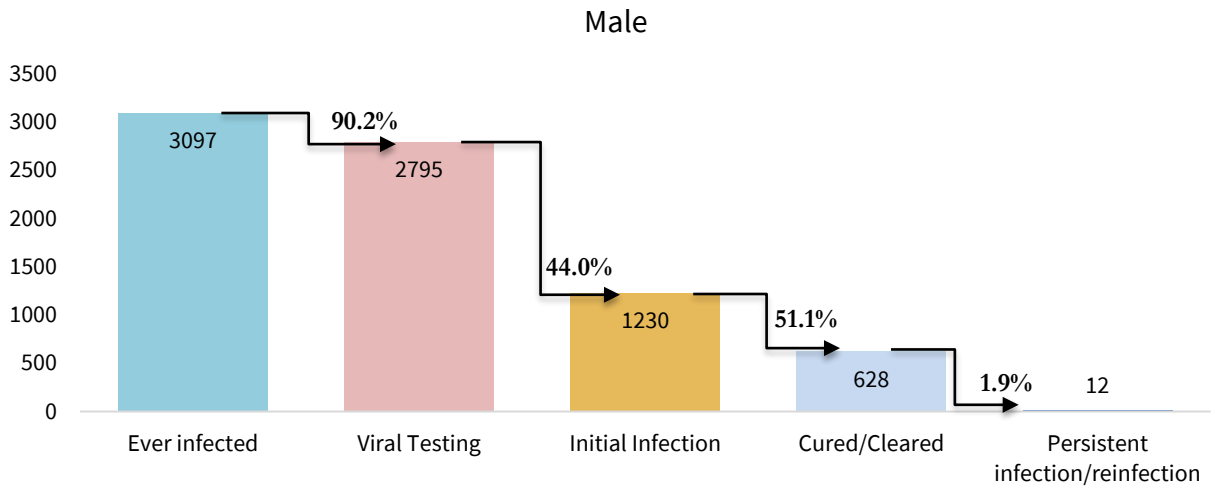


Figure 13. HCV clearance cascade among males, 2021– 2024



*Note: The HCV Clearance Cascade included less than 7 people who identified as 'Other' sex. No person in this group had a detectable HCV result.

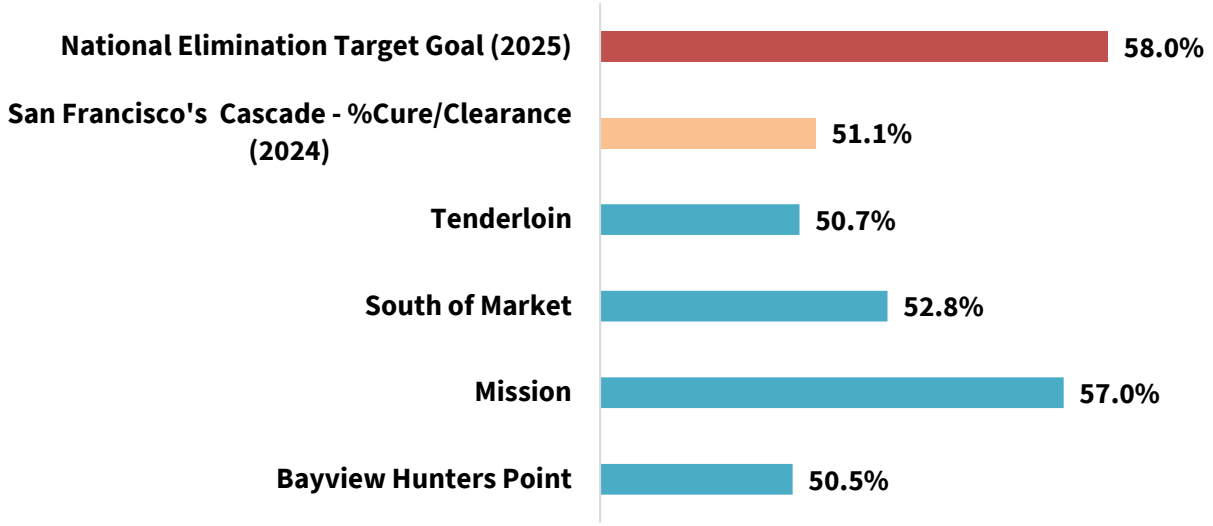
The proportions of cure/clearance among females and males were comparable.

>>> For more information, see Technical Notes & Table 5

HCV Clearance Cascade: Cured/Cleared by Neighborhood

Figure 14. Percentage of HCV-initially infected people with laboratory evidence of cure or clearance from San Francisco neighborhoods, 2021–2024 *†

The figure below shows the neighborhoods with at least 90 initial HCV infections. Among those who had an initial infection, the proportions of those who were cured or cleared (a subsequent negative HCV RNA result) have been displayed graphically below. Please see Table 6 for a detailed list. A comparison with the 2025 U.S. DHHS' Elimination Goal was included to show neighborhood-level progress towards HCV elimination.



*Notes: Approximately 149/861 (17%) people who were cured/cleared had addresses that could not be geocoded and are not represented in this graph.

†Neighborhoods with less than 90 initially infected people are not included in this bar graph since the proportions from low counts will be less accurate and may not reflect the true number of people who were initially infected with HCV in each neighborhood. Please see Table 6 for a complete list of initially infected people with laboratory evidence of cure or clearance from HCV by neighborhood.

Approximately **1 in 2 cases living in Bayview Hunters Point (50.5%) or the Tenderloin (50.7%) was cured/cleared**. The **Mission (57.0%) was a percentage point from** the **2025** DHHS's **National Elimination Target Goal (58%).** However, none of the neighborhoods met the national elimination target goal.

>>> For more information, see Technical Notes & Table 6 for a complete list by neighborhood of all infected people who were cured or cleared of HCV

HCV Clearance Cascade: Big Picture Findings

Successes:

Cure/clearance:

- People aged **40- 59 years old** had the **highest proportion of cure/clearance** compared to other age groups.
- The proportion of cure/clearance among **Asians** (67.9%) **exceeded** the U.S. DHHS' 2025 **national elimination target goal of 58%**.
- The proportion of cure/clearance among people identifying as **Latino/a/x** (all races) (58.3%) **met the 2025 national elimination target goal** (58%).

Neighborhood cure/clearance:

- Among neighborhoods with at least 90 initially infected HCV cases, the **Mission (57.0%)** almost met, by one percentage point, **the 2025 national elimination target goal of 58%.**

This analysis did not explore the reasons for the progress in cure/clearance observed among specific groups in the cascade. Existing literature indicates facilitating factors such as the expansion of and increase in viral testing and reporting among healthcare providers,[13] treatment availability, and accessibility to a highly effective treatment.[14]

Gaps:

Viral testing and cure/clearance:

- Progress towards **increasing** the proportion of **cure/clearance is still needed among people aged 20-39 years (47.5%) and 60+ years old (48.5%). These groups** had among the two **lowest proportions of cure or clearance**.
- **Increased viral testing** efforts are necessary among people aged **60+ years old** who reported the lowest percentage of viral testing (89.2%).
- Increased efforts to **narrow racial disparities in cure/clearance** are necessary. **Black/African Americans** had the **lowest proportion of cure/clearance (46.3%)** across all racial/ethnic groups**,** well below the national elimination goal of 58%.
- **People with no viral testing highlight a gap** in understanding their progress through the cascade. It is important to identify the reasons for these missed opportunities, especially in **community/public health clinics and in urgent care centers and emergency departments**

Neighborhood cure/clearance:

- **Progress towards cure/clearance** is still needed in neighborhoods such as **Bayview Hunters Point** (50.5%) **and the Tenderloin** (50.7%), where the proportion of people cured/cleared was below the overall cascade's proportion of 51.1%. These neighborhoods did not meet the national elimination target goal.

Overall, these findings could indicate a need for enhanced outreach efforts, which could be insightful in understanding gaps in care or access to care within these groups and in these neighborhoods.

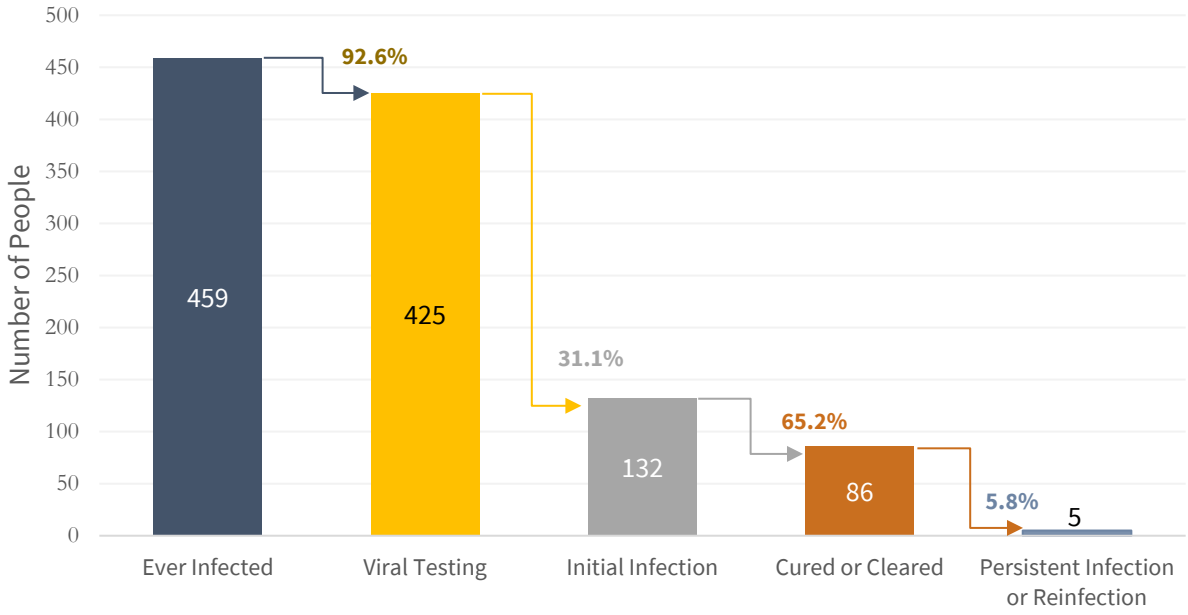
HEPATITIS C AND HIV

Hepatitis C and HIV surveillance data were matched to describe San Francisco residents with hepatitis C and HIV coinfection. This is an important population for HCV treatment prioritization, given that people living with HIV are six times more likely to have HCV, and HIV/HCV coinfection leads to faster progression to fibrosis, cirrhosis, liver cancer, and other health complications[15,16,17]. The data match led to two subsets of data, which are presented in the next two subsections.

Hepatitis C Clearance Cascade for People with HIV

The hepatitis C clearance cascade for people with HIV estimates the percentage of those tested for HCV and cured/cleared of HCV. It includes 459 San Francisco residents living with HIV with at least one positive HCV lab reported during the ever-infected period (2021-2023), then tracks their HCV results through the follow-up period (2021-2024). Inclusion in the cascade was restricted to those with at least one HCV result from facilities providing complete HCV RNA reporting to SFDPH.

Figure 15. Hepatitis C clearance cascade for people with HIV, 2021-2024



Notes: 2021-2024 refers to time of HCV lab reports. Percentages are based on the previous stage of the cascade. See Hepatitis C Clearance Cascade for People in San Francisco section for definitions of each stage of the cascade.

Among HCV/HIV coinfected cases, **65.2%** of those who were initially infected with HCV were **cured or cleared of hepatitis C** by the end of 2024.

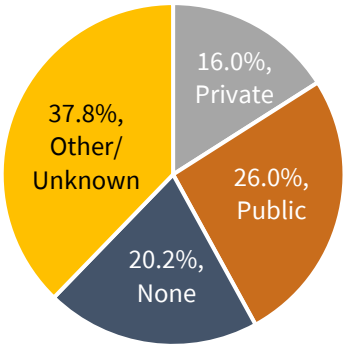
The methodology for the hepatitis C clearance cascade for people with HIV in the 2024 HCV surveillance report differs from the cascade in the 2023 report and aligns with the CDC's methodology[12]. The 2024 HCV/HIV report cascade only includes HCV lab reports from 2021-2024, while the 2023 report cascade included all available lab reports in the HCV registry through 2023, including prior to 2021, for HCV/HIV coinfected individuals with at least one positive HCV lab reported from 2021-2023. Additionally, the cascade in the 2024 report only includes individuals with at least one result from facilities providing complete HCV RNA reporting (including negatives) in 2021-2024, while the 2023 cascade was not restricted by reporting facility. These changes make it difficult to compare findings from this year's HCV/HIV cascade to the previous year's cascade.

>>> For more information & data on the HCV and HIV match, see Technical Notes and Tables 7 & 8

Insurance Status and Risk Factors for Chronic HCV Cases with HIV Coinfection

Of the individuals in the hepatitis registry who had at least one positive HCV lab reported from 2021-2024, 588 were both coinfected with HIV *and* met the CDC/CSTE case definition for a confirmed or probable chronic HCV case. Data for these cases are presented here.

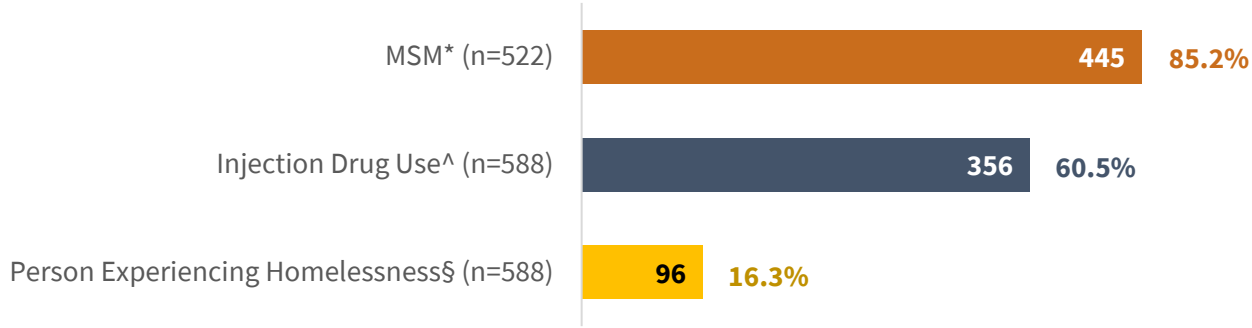
Figure 16. Insurance status for chronic HCV cases with HIV coinfection, 2021-2024



20.2% of chronic HCV cases with HIV had **no insurance** at the time of their HIV diagnosis.

Note: N=588. Primary source of health insurance at the time of HIV diagnosis. 2021-2024 refers to time of positive HCV report.

Figure 17. Risk factors for chronic HCV cases with HIV coinfection, 2021-2024



Notes: Risk factor data are from the HIV/AIDS case registry. Risk factors are not mutually exclusive. 2021-2024 refers to the time of positive HCV report.

* Men who have sex with men (MSM) defined as persons born male who had sex with men. Number & percentage excludes persons born female. MSM data are unknown for 26/522 (5.0%) of cases born male.

^ Injected drugs prior to HIV diagnosis. Injection drug use data are unknown for 40/588 (6.8%) of cases.

§ Status based on most recent reported address in HIV/AIDS case registry.

Among chronic HCV cases with HIV coinfection, **85.2%** of persons born male were **MSM** and **60.5%** overall had a history of **injection drug use**

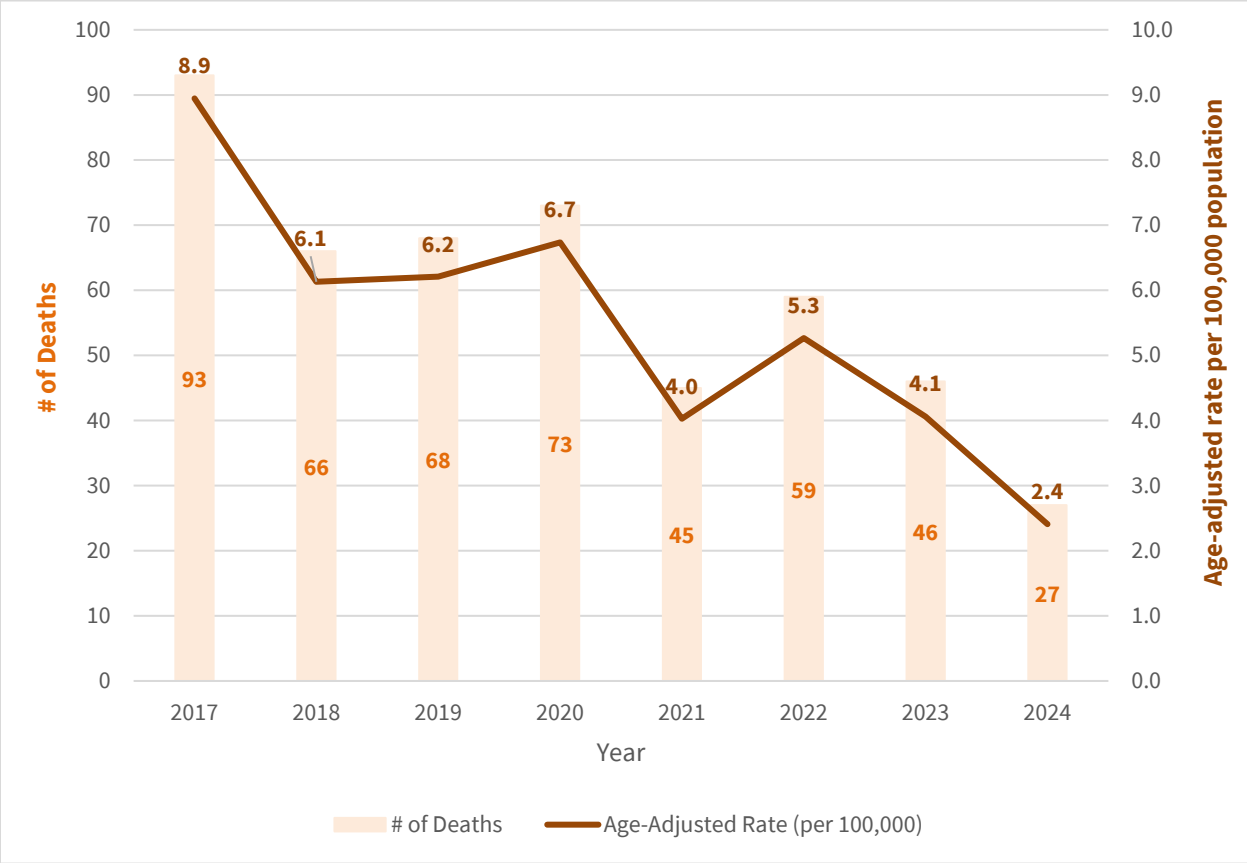
Among people living with HIV and initially infected with HCV, **68.7% of MSM, 61.3% of people with a history of injection drug use, and 53.5% among persons experiencing homelessness were cured or cleared of hepatitis C** by the end of 2024.

>>> For more information & data on the HCV and HIV match, see Technical Notes and Tables 7 & 8

HEPATITIS C ASSOCIATED DEATHS

Hepatitis C is associated with increased risk for premature death. Age-adjusted mortality rates among San Francisco decedents with HCV listed as one of the multiple causes of death in death certificate data are presented in this section.

Figure 18. Age-adjusted HCV-associated mortality rate among San Franciscans, 2017-2024



In 2024, the number of HCV-associated deaths was **27** and the age-adjusted HCV-associated mortality rate per 100,000 people was **2.4**. This is a decrease overall since 2017, which meets the DHHS national goals of reducing the rates of HCV-related deaths by 25% by 2025[11].

>>> For more information on hepatitis C associated deaths, see Technical Notes

TECHNICAL NOTES

Listed below are the technical notes for the HCV surveillance data in this report.

- **Laboratory Results Reporting and Data Storage:** Laboratorians, clinicians, and other mandated reporters report positive and certain negative HCV test results to the SFDPH in compliance with Title 17, California Code of Regulations (CCR), Sections 2500 and 2505.[18] According to the California Health and Safety Code (HSC) Section 120130, laboratories are required to submit lab results electronically to the state electronic reporting system.[19] Laboratories and providers are required to report test results, patient identifiers (e.g., name, date of birth, gender, address, phone number, medical record number) and provider identifiers (e.g., name, facility, address).[18] SFDPH receives and stores the reported information in a secure electronic, person-based database. Laboratory data are quality-checked and deduplicated on a routine basis.
- **CDC/CSTE Chronic Hepatitis C Case Definition:** The 2020 Centers for Disease Control and Prevention/Council of State and Territorial Epidemiologists (CDC/CSTE) laboratory criteria for diagnosis are applied to HCV test results to identify persons with probable and/or confirmed chronic hepatitis C[7]. CDC/CSTE defines a probable case of chronic hepatitis C as a person with a positive test for antibodies to hepatitis C virus, and no report of an HCV virus detection test or NAT. A confirmed case of chronic hepatitis C is a person who has a positive HCV virus detection test or NAT, including qualitative and quantitative RNA or genotype testing. In addition to the laboratory criteria, both probable and confirmed case definitions require that cases are >36 months of age (unless exposure was known to be non-perinatal) and have no report of, or do not meet, clinical or laboratory criteria indicative of an acute infection. SFDPH does not routinely receive clinical information (e.g., jaundice, liver enzyme tests, etc.) nor, historically, negative HCV results to identify acute cases based on symptoms or test conversion (a negative HCV test result followed within 12 months by a positive HCV result). Therefore, the CDC/CSTE laboratory criteria are used for case classification, and the majority of HCV test results default to being classified as chronic.
- **Negative RNA and Positive Antibody:** Negative HCV viral detection test results, such as qualitative and quantitative RNA, were first incorporated in the 2023 Viral Hepatitis C Surveillance Report. Per the 2020 CDC/CSTE case definition[7], individuals with only positive anti-HCV and negative RNA results are not considered a case and are not included in any core surveillance case counts but may be included in the HCV clearance cascade. In reports prior to 2023, where negative RNA results were not included, these individuals would have been included as probable cases (only positive anti-HCV results). As such, case counts in this report are not comparable to reports prior to the 2023 Viral Hepatitis C Surveillance Report. Similarly, the reporting of negative HCV RNA results has increased since 2021, with 98% of reporting facilities that conduct HCV testing for San Francisco residents reporting negative HCV RNA results to SFDPH as of November 2023. As such, decreases in the number of newly reported cases, particularly in 2024, may be due to this increase in negative HCV RNA reporting, with

fewer probable cases being reported in a given year due to receipt of accompanying negative HCV RNA results.

- **Newly Reported Cases:** Newly reported cases are persons reported to SFDPH who met laboratory criteria for a probable or confirmed chronic hepatitis C case for the first time during the reporting period and for whom no positive HCV laboratory report had previously been received. For Figure 1, this is based on the confirmed or probable status as of the end of the year in which the case was newly reported. This differs from Figure 1 in the 2023 Viral Hepatitis C Surveillance Report, which was based on the individual's status as of the end of the reporting year 2023. This difference leads to changes in the number of newly reported cases being reported per year between the two reports. For the 2023 report, an individual who only had a positive anti-HCV result in the year in which they were newly reported but had a negative RNA result in a subsequent year would not be considered a case and was not included in the newly reported case counts in the 2023 report Figure 1. But in the 2024 report, the same individual would be included in Figure 1 as a probable case based on the positive anti-HCV results received in the year in which the person was newly reported; the negative RNA result would not be considered since it was received in a subsequent year. The inclusion of such cases in Figure 1, as we do with the 2024 report, allows for better monitoring of newly reported trends over time.
- **All Reported Cases:** All reported cases are persons who were reported to SFDPH with a positive HCV lab report in 2024 and met the laboratory criteria for a probable or confirmed chronic hepatitis C case. This includes both newly reported cases in 2024, as well as those who were reported for the first time prior to 2024 but had a positive HCV lab reported in 2024.
- **Reported Gender:** In 2019, Title 17 was changed requiring gender to be reported with laboratory results.[18] However, laboratories only report one field for sex and gender, with no way to determine whether sex assigned at birth or gender identity is being reported. In this report, reported gender is the gender/sex as reported by laboratories/facilities. The number and percentage of persons with missing or unknown reported gender is shown in table/figure footnotes.
- **Race/Ethnicity:** Race/ethnicity is obtained from the laboratory report and classified as American Indian/Alaska Native, Asian, Black/African American, Latino/a/x, Native Hawaiian/Pacific Islander, White, or Other. Latino/a/x ethnicity includes all persons of Latino/a/x ethnicity regardless of race; all other race categories do not include persons of Latino/a/x ethnicity. The race category, 'Other' includes multi-race categories or those reported with race 'Other' in laboratory reports. The number and percent of persons for whom race/ethnicity is missing or unknown is shown in the footnotes of tables/figures. For the hepatitis C and HIV analysis, Native Hawaiian/Pacific Islander was combined with the Asian category, and American Indian/Alaska Native, Other and Unknown categories were combined. Starting in 2023, to improve the completeness of race and ethnicity data, an annual match with the California Department of Public Health's CalREDIE surveillance system was implemented for core surveillance.

- **Addresses and Geocoding:** Only individuals in the hepatitis registry with a recent San Francisco address or whose address is unknown/missing are included in this report. Address information was geocoded using ArcGIS Pro to identify latitude and longitude and then matched to San Francisco neighborhoods using R. Cases that could not be geocoded due to missing or unknown residential address information are excluded from the geographic distribution analysis. The number and percentage of persons for whom an address is unknown is shown in table/figure footnotes. Data for neighborhoods with a case count that is less than 5 or with a population of <1000 are not disclosed.
- **Healthcare facilities where a person with an anti-HCV positive result did not receive a viral test result:** To identify the type of facility where cases were tested for HCV anti-body but did not receive a HCV viral detection test following an anti-HCV positive result, in 2025, SFDPH began reporting these types of facilities. The purpose of reporting the types of facility is to identify gaps in viral testing for HCV. Healthcare facilities that could not be identified as one of the categories were excluded from the analysis. The number and percentage of these facilities for whom a facility type could not be identified is shown in figure footnotes.
- **Analyses:** SAS version 9.4 and Microsoft Excel were used for descriptive and statistical analyses, tables, and figures, unless otherwise noted.
- **Case counts less than five:** All case counts less than five are displayed as "<5" and corresponding rates or percentages are displayed as less than the corresponding case rate or percentage for five cases.
- **Rates:** Case rates for newly reported chronic hepatitis C cases from 2021-2024 (figure 1) were calculated as the number of newly reported chronic HCV cases reported to SFDPH for a given year divided by the San Francisco population multiplied by 100,000. Case rates for the geographic distribution analysis (figures 4 & 5; tables 2 & 3) were calculated as the number of chronic HCV cases reported to SFDPH in 2024 divided by the San Francisco population multiplied by 10,000. Death rates (figure 18) are age-adjusted per 100,000, weighted to the U.S. 2000 standard population. San Francisco population estimates used for denominators were from the 2019 - 2023 American Community Survey (ACS) 5-year estimates[9,10]. Case rates in this report are not prevalence rates or incidence rates (see Data Limitations).
- **Total Percentages:** Percentages may not total 100 due to rounding.
- **Confidentiality:** Data collected and summarized in this report is kept strictly confidential. SFDPH is authorized by law to collect information on cases of HCV infections for the purpose of controlling or preventing disease including: the reporting of disease, the conduct of public health surveillance, public health investigation and public health intervention.[20] SFDPH employees have a legal and ethical responsibility to protect the confidentiality of protected health information and to use that information only in the performance of their jobs.
- **Changes in Data from Previous Reports:** Changes in data in this report from previous reports may be due to delays in reporting, changes in definitions or methodology, or corrections to the data, such as the removal of duplicates. Changes in rates may be due to updated population data in the denominator of rate calculations.

CORE SURVEILLANCE DATA NOTES

- **Persons included in the 2024 Core Surveillance:** Core surveillance data in 2024 include all persons who met laboratory criteria for probable or confirmed chronic hepatitis C infections with at least one positive HCV test result (anti-HCV, RNA, or genotype) reported to SFDPH from January 1, 2024 – December 31, 2024.
- **Age used in the 2024 Core Surveillance:** Age is defined as the age of the person at the time their first positive HCV result was received by SFDPH in 2024.

ACTIVE HCV INFECTIONS

A map of HCV active infections was first included in the 2023 Viral Hepatitis Surveillance Report. The map includes counts of people whose latest HCV viral test result was positive or "detected" as of December 31, 2024. The purpose of this map is to describe geographically, people who had an active infection as of December 31, 2024. Rates were not calculated. Instead, counts of active infections were used since the underlying population that was served by the reporting facilities could not be estimated for a part of the time period.

LABORATORY RESULTS-BASED CHRONIC HEPATITIS C CLEARANCE CASCADE NOTES

Timeframes and Descriptions of 2024 Laboratory-based Hepatitis C Clearance Cascade

- **Cascade starting point:** January 1, 2021, the date when full reporting of HCV RNA negative or not detected test results was implemented in four high-volume laboratories and facilities, which report HCV test results to SFDPH.
- **Evaluation time**: The interval between the cascade starting point, January 1, 2021, and the analysis point.
- **Follow-up period**: The follow-up period extended from the cascade starting point to December 31, 2024.
- **Facilities included in the HCV clearance cascade:** Comprehensive reporting of negative HCV RNA results was not fully implemented in SFDPH until mid-November 2023. However, four laboratories and health facilities reported negative HCV RNA results to SFDPH prior to 2024. These facilities make up the bulk of the proportion of HCV RNA negative results received prior to 2024. In 2024, the reporting of HCV RNA negative results was fully implemented across facilities reporting to SFDPH. An analysis of HCV results from these four facilities demonstrated the following:

  - Laboratory results from these four facilities represented 59.6% (11,798/19,781) of all positive HCV test results (antibody HCV, quantitative HCV RNA, and qualitative HCV RNA, detectable genotype results).
  - Approximately 57.4% (4,607/8,033) of all positive HCV viral detection test results (HCV RNA, genotype results) received during this follow-up period were reported to SFDPH by these four facilities.
  - Approximately 76.7% (13,533/17,652) of all negative HCV viral detection test results (HCV RNA, genotype results) reported to SFDPH were reported by these four facilities.
- **Persons included in the HCV clearance cascade**: Inclusion in the clearance cascade was determined by a positive HCV laboratory result from one of the four facilities fully reporting negative HCV RNA results to SFDPH between 2021 -2023 AND people with an HCV RNA test result from facilities which were fully reporting HCV RNA results in 2024 and a positive result between 2021 – 2023.
- **Persons excluded from the HCV clearance cascade:** A person was excluded from the analysis of the clearance cascade if they were known to be deceased (using a match of state and some out-of-state level death records); were known to live in a jurisdiction outside of San Francisco; or were missing a date of birth.
- **Age used in the analysis**: Age is defined as the person's age at the time of the last HCV specimen collection date.
- **Comprehensiveness of the data used in the longitudinal analysis:** Since complete reporting of negative HCV RNA laboratory results was not uniformly reported by all facilities to SFDPH during the follow-up period (January 1, 2021 – December 31, 2024), the findings from this longitudinal analysis may not reflect the true proportion of cases that tested positive for hepatitis C RNA and subsequently showed laboratory evidence of cure/clearance. Therefore, the findings from the longitudinal analysis should be interpreted with caution.
- **Classification of test results for the laboratory results-based HCV clearance cascade:** Only laboratory results-based HCV tests reported to SFDPH with a known result (positive anti-HCV, positive or negative HCV RNA or detectable genotype) were included in this analysis.
  - HCV tests indicating an HCV RNA [qualitative, quantitative], HCV genotype or HCV antibody or anti-HCV were the only tests included in this analysis.
  - HCV test results with an interpretation indicating "Positive", "Reactive", "Detected", "Negative", "Not detected", or "Non-Reactive" were included in this analysis.

Classification of cases in the Hepatitis C clearance cascade

- **Step 1 –Ever infected**: All individuals with any positive/ "detected" HCV test (anti-HCV, RNA, detectable genotype) performed from the starting point through the end of the ever-infected period (December 31, 2023).
- **Step 2 –Viral testing performed**: This category includes all individuals who were ever infected (**Step 1**):

  - **2a** – **No HCV viral test reported** — All individuals who have no HCV viral test performed by the end of the follow-up period (December 31, 2024).
  - **2b** – **HCV Viral test performed**—All individuals who have any HCV viral test performed by the end of the follow-up period (December 31, 2024), regardless of the result.
- **Step 3 – Initial Infection status:** This category includes all individuals in the viral testing performed (**Step 2b**):
  - **3a – Initial HCV infection cured or cleared–** All individuals whose initial HCV viral test result performed during the follow-up period (through December 31, 2024) was "not detected."
  - **3b – Initial HCV infection present –** All individuals whose initial HCV viral test result performed during the follow-up period (through December 31, 2024) was "detected" (Step 3b):

Note: Initial HCV infection cured or cleared may include false positive antibody results.

- **Step 4 – Cured or cleared:** This category includes all individuals with an initial HCV viral test result "detected" (Step 3b):
  - **4a** – **HCV infection not cured or cleared during the cascade timeframe** – All individuals where no subsequent HCV viral test results were performed or where all subsequent HCV viral test results during the follow-up period (through December 31, 2024) were "detected".
  - **4b** – **HCV infection cured or cleared during the cascade timeframe** – All individuals where a subsequent HCV viral test result "not detected" was performed during the follow-up period (through December 31, 2024).

Note: The cascade is unable to distinguish between cured (referring to successful treatment response) and cleared (referring to natural, spontaneous clearance). Therefore, this is not necessarily indicative of a sustained virologic response at post-treatment week 12 (SVR12), which is defined as the absence of detectable HCV RNA 12 weeks after completion of treatment and is often the standard endpoint following treatment to assess cure.

Note: A patient with a single, detectable HCV RNA result would populate all the first four steps – Step 1, Step 2b, Step 3b, and Step 4a.

- **Step 5 – Persistent infection or reinfection.**
  - **5a –** Persistent infection or reinfection – All individuals where a negative/ "not detected" result (Step 3a) is followed by an HCV viral test result positive/ "detected."
  - **5b –** Persistent infection or reinfection – All individuals where a negative/ "not detected" result (Step 4b) is followed by a HCV viral test result positive/ "detected."

Note: The cascade is unable to distinguish among the reasons for persistent infection (e.g., incomplete treatment, treatment failure, viral breakthrough), reinfection, or false positive reports (rare). For simplicity, there is no minimum time period after an HCV viral negative/ "not detected" test result (cured or cleared) and before a subsequent HCV viral positive/ "detected" test result occurs to qualify

as a persistent infection or reinfection. Regardless of whether these infections present persistent infections or reinfections, this group represents an important opportunity for linkage to care and treatment.

HEPATITIS C AND HIV DATA NOTES

- **Persons included in the HCV Data for the HCV and HIV Match:** The HCV data for the HCV and HIV match included 9,119 persons in the HCV registry who were > 36 months of age and ever infected with HCV, with at least one positive HCV lab result (anti-HCV, RNA, or genotype) reported from January 1, 2021 – December 31, 2024. This included individuals who do not meet the criteria for a probable or confirmed case but had a positive anti-HCV result reported during the time period, as well as individuals who have been cleared or cured of HCV.
- **Persons included in the HIV Data for the HCV and HIV Match:** The HIV data for the HCV and HIV match included persons in the SFDPH HIV/AIDS case registry as of July 2025, not restricted by any time period. This included all deceased and living cases, as well as all cases who were residents of San Francisco at the time of diagnosis or who were out of jurisdiction but had received care in San Francisco. Please refer to the most recent San Francisco HIV Surveillance report for more information on HIV in San Francisco: https://www.sf.gov/resource--2024--hiv-epidemiology-unit-reports
- **Persons included in the HCV and HIV Matched Data:** The data match led to two subsets of data, which were presented in two subsections:
    1. **Hepatitis C Clearance Cascade for People with HIV** section includes 459 people living with HIV with at least one positive HCV lab (anti-HCV, RNA, or genotype) reported during the ever-infected period (January 1, 2021 – December 31, 2023), then tracks their HCV results through the follow-up period (January 1, 2021 – December 31, 2024). Inclusion in the cascade was restricted to those with at least one HCV result from facilities providing complete HCV RNA reporting (including negatives) in 2021-2024 to SFDPH. For more information on the reporting facilities, see above in Laboratory results-based chronic hepatitis C clearance cascade notes.
    2. **Insurance Status and Risk Factors for Chronic HCV Cases with HIV Coinfection** section includes 588 people living with HIV who met the CDC/CSTE case definition for a confirmed or probable chronic HCV case, with at least one positive HCV lab reported from January 1, 2021 – December 31, 2024.
- **Variables from the SFDPH HIV/AIDS Case Registry:** The following data were from the SFDPH HIV/AIDS case registry: sex at birth, race/ethnicity, insurance at HIV diagnosis, person experiencing homelessness, injection drug use, Men who have sex with men (MSM), and years between HCV and HIV diagnosis (see Tables 7 & 8 footnotes for additional information). The reporting of a risk factor does not necessarily indicate the source of HCV infection.
- **Age used in the 2024 Hepatitis C and HIV section:** Age is defined as the person's age at the time of the last HCV specimen collection date.

- **Changes to the Hepatitis C Clearance Cascade for People with HIV:** The methodology for the hepatitis C clearance cascade for people with HIV in the 2024 HCV surveillance report differs from the cascade in the 2023 report and aligns with the methodology [12] of the CDC and the Laboratory results-based HCV clearance cascade, 2021-2024 (figure 8). The 2024 HCV/HIV report cascade only includes HCV lab reports from 2021-2024 and excludes results prior to 2021, while the 2023 report cascade included all available lab reports from the HCV registry through 2023, including results prior to 2021, for HCV/HIV coinfected individuals with at least one positive HCV lab reported from 2021-2023. The 2024 report separates out the cascade stage for 'Persistent Infection or Reinfection' and has a follow-up period that is one year longer than the ever-infected period; the 2023 report did neither. Additionally, the cascade in the 2024 report only includes individuals with at least one result reported from facilities providing complete HCV RNA reporting (including negatives) from 2021-2024, while the 2023 cascade was not restricted by reporting facility. These changes in methodology have led to differences in cascade results between the two reports. For example, individuals who tested positive for an HCV viral detection test and were cured or cleared prior to 2021 fall out of the cascade in the 2024 report but are included in the 'HCV Virus Detected' stage in the 2023 report. These changes make it difficult to compare findings from this year's HCV/HIV cascade to the previous year's cascade.
- **Classification for the Hepatitis C Clearance Cascade for People with HIV:** The laboratory-based hepatitis C clearance cascade for people with HIV based on the HCV and HIV matched data follows the definitions as outlined in the Classification of cases in the Hepatitis C clearance cascade section (see above).

HEPATITIS C ASSOCIATED DEATHS NOTES

- **Hepatitis C associated deaths:** The death analysis includes all decedents from 2017-2024 reported to the California Department of Public Health (CDPH)'s vital records with a San Francisco address and with HCV listed as one of the multiple causes of death.
- **Cause of Death:** Causes of death are not mutually exclusive. Hepatitis C associated causes of death were determined based on the International Classification of Diseases, 10th Revision (ICD-10) codes.[21] Decedents with any of the following ICD-10 codes listed as one of the multiple causes of death are included in the analysis: B17.1 and B18.2.
- **Interpretation of HCV deaths:** Death rates should be interpreted with caution due to the underreporting of HCV as a cause of death, [22] the impact of the COVID-19 pandemic on overall mortality, and the possibility of misclassification of ICD-10 codes on death records.

DATA LIMITATIONS

1. Surveillance data do not measure prevalence: The data presented are not an estimate of the prevalence of HCV infection in San Francisco residents. Prevalence cannot be calculated because some persons infected with HCV are not tested, and others were tested before consistent reporting to SFDPH was established. In addition, some persons who were tested anonymously may not have been reported to SFDPH. Finally, the data presented may include persons who have left San Francisco or may have died after they were reported to SFDPH.

2. Surveillance data do not measure incidence: The data presented are not an estimate of the incidence rate of chronic hepatitis C cases in 2024. The incidence rate is the number of newly infected persons occurring within a defined time in a defined geographical area. While the date of initial reporting to SFDPH is tracked, this date does not necessarily reflect the initial infection or diagnosis date. For example, a person may have been infected many years ago but was not tested until 2024 because a clinician was following recommended screening practices or because symptoms of chronic hepatitis had developed.

3. HCV Infection: The HCV infection data presented potentially overestimate the number of reported persons who have chronic HCV infection. Acute HCV infections may be misclassified as chronic cases because no single laboratory test distinguishes acute from chronic HCV infection, and acute infection is based on clinical symptoms and liver function tests that are not routinely reported to the health department. Cleared/cured HCV infections may also be included, because the classification of a cleared or cured case requires a clinician assessment and/or negative tests (e.g., HCV viral tests) that, historically, have not been reported to public health from certain laboratories/facilities. However, as of November 2023, a comprehensive reporting of negative and positive HCV RNA results has been implemented.

Nevertheless, distinguishing between acute, chronic, and cleared/cured infections would require public health follow-up with clinicians and/or patients to collect additional laboratory test results and medical care information. Due to the large volume of reports and limited resources for follow-up, SFDPH was limited to conducting HCV surveillance based on HCV test results, which are required to be reported to public health.

4. Reporting gaps: Complete identification of chronic HCV cases depends on complete reporting by laboratories and clinicians. Title 17, CCR mandates clinicians to report cases of chronic hepatitis C to SFDPH[18]; however, the majority of cases are reported by laboratories and not by clinicians. In addition, there are likely San Francisco residents with chronic hepatitis C who did not receive laboratory testing for hepatitis C during this period and whose treating clinician did not report their condition. Information about these persons is therefore missing from this report. Although this report includes negative viral detection tests, not all laboratories/facilities were reporting negative HCV NAT test results during this

time period. Finally, people who were included in these data may not live in San Francisco, either because their address information was not provided or because they have moved.

5. Missing information: Laboratory information systems frequently do not receive or store information about patient race and ethnicity, resulting in a large proportion of cases reported with unknown race and ethnicity.

Similarly, some laboratory reports are missing a residential address. Of the chronic HCV cases reported to SFDPH in 2024, approximately 8% were missing street address, city, and ZIP code information. Additionally, some cases were reported with a home address identical to the clinic or outpatient medical facility where they received care or were reported with a post office mailing address; these cases' residences were defined as unknown for this report. Since individuals whose county of residence was unknown are included in this report along with persons known to live in San Francisco, the core surveillance data presented may overestimate the number of San Franciscans who were reported with chronic hepatitis C during this period.

Cases with unknown residential addresses were also not included in the geographic distribution. While it is certain that this subset of cases includes people experiencing homelessness (PEH), the percentage of total PEH cases that are included in the subset is unknown, as laboratories and facilities do not report housing status data to SFDPH, and cases cannot be reliably identified as experiencing homelessness. PEH are disproportionately impacted by hepatitis C,[23] and the omission of cases with unknown residences from the geographic distribution may cause underrepresentation of PEH in the geographic analysis.

6. Duplication: SFDPH follows procedures to minimize duplicate records for persons whose laboratory results may be submitted with slight variations in name spelling (e.g., use of middle initial, typographic error). However, in some instances it may not be obvious that two different names belong to the same person, so two cases will be recorded instead of one. This would lead to a slight overestimate of the number of reported chronic HCV cases in this period. Conversely, in some situations, information from a case may have been erroneously matched and joined to the information from another case, leading to potential underestimation of the number of chronic HCV cases reported in this period.

DATA TABLES

Table 1: Characteristics of chronic HCV cases in San Francisco, 2024

	All Reported Cases[2]		Newly Reported Cases[2]	
	N	% (Column)	N	% (Column)
All	2308	100.0%	566	100.0%
HCV Case Status				
Confirmed	2034	88.1%	365	64.5%
Probable	274	11.9%	201	35.5%
Reported Gender				
Female	664	28.8%	189	33.4%
Male	1644	71.2%	377	66.6%
Age Group (Years)				
<15	0	0%	0	0%
15-24	15	0.6%	9	1.6%
25-34	286	12.4%	137	24.2%
35-44	428	18.5%	152	26.9%
45-54	385	16.7%	93	16.4%
55-64	562	24.4%	88	15.5%
65-74	466	20.2%	54	9.5%
75+	166	7.2%	33	5.8%
Race/Ethnicity[1]				
American Indian/Alaska Native	35	1.6%	13	2.8%
Asian	154	7.1%	31	6.6%
Black/African American	489	22.5%	58	12.4%
Latino/a/x (all races)	278	12.8%	48	10.3%
Native Hawaiian/Pacific Islander	7	0.3%	< 5	< 1.1%
White	1179	54.2%	298	63.8%
Other	32	1.5%	18	3.9%

1. Race/Ethnicity is missing for 134/2308 (5.8%) of all reported cases and 99/566 (17.5%) of newly reported cases.
2. Number and percentages are not shown for categories with fewer than 5 cases.

Table 2: All reported chronic HCV case count, case rate, and population estimate by San Francisco neighborhood, 2024[1]

San Francisco neighborhood[2]	Case count[3]	Case rate[3,4]	Population estimate[5]	San Francisco neighborhood[2]	Case count[3]	Case rate[3,4]	Population estimate[5]
Tenderloin	429	134.0	32,009	Bernal Heights	29	11.7	24,725
South of Market	233	94.3	24,698	Lone Mountain/USF	19	11.6	16,387
Treasure Island	16	56.6	2,829	Portola	18	11.6	15,558
Mission	209	38.4	54,431	Excelsior	42	11.1	37,915
Hayes Valley	62	34.0	18,240	Chinatown	14	11.1	12,644
Western Addition	72	32.6	22,066	Outer Richmond	40	9.1	44,049
Bayview Hunters Point	127	31.9	39,816	Russian Hill	15	8.9	16,879
Twin Peaks	24	30.5	7,861	Inner Sunset	23	8.4	27,534
Financial District/South Beach	54	22.0	24,519	Pacific Heights	19	8.3	22,976
Nob Hill	51	21.7	23,526	Oceanview/ Merced/ Ingleside	20	8.1	24,770
Castro/Upper Market	45	20.4	22,024	Outer Mission	17	7.8	21,717
Japantown	8	20.3	3,936	Inner Richmond	15	7.4	20,261
Haight Ashbury	35	19.7	17,780	Presidio Heights	7	7.0	9,942
Mission Bay	31	18.6	16,710	Sunset/ Parkside	45	6.0	75,455
Lakeshore	22	18.3	12,019	West of Twin Peaks	20	5.4	36,882
Visitacion Valley	24	14.1	17,068	Marina	6	2.5	23,733
North Beach	15	13.0	11,497	Presidio	<5	<13.1	3,808
Noe Valley	30	12.9	23,334	Seacliff	<5	<20.7	2,419
Potrero Hill	19	12.3	15,463	Glen Park	<5	<5.9	8,458

1. A total of 444/2308 (19.2%) of all reported cases could not be geocoded and are not shown.
2. Neighborhoods with a population fewer than 1,000 people are not included.
3. Case counts and case rates for neighborhoods with fewer than five cases are displayed as '<5' and less than the corresponding rate for five cases.
4. The case rate is the number of cases by neighborhood per 10,000 population.
5. San Francisco Population data source: American Community Survey 5-year estimate 2019-2023.[9]

Table 3. Newly reported chronic HCV case count, case rate, and population estimate by San Francisco neighborhood, 2024[1]

San Francisco neighborhood[2]	Case count[3]	Case rate[3,4]	Population estimate[5]
Tenderloin	73	22.8	32,009
Treasure Island	5	17.7	2,829
South of Market	34	13.8	24,698
Mission	43	7.9	54,431
Haight Ashbury	14	7.9	17,780
Bayview Hunters Point	26	6.5	39,816
Financial District/South Beach	11	4.5	24,519
Castro/Upper Market	10	4.5	22,024
Portola	7	4.5	15,558
Nob Hill	10	4.3	23,526
Lakeshore	5	4.2	12,019
Outer Mission	9	4.1	21,717
Excelsior	15	4.0	37,915
Hayes Valley	7	3.8	18,240
Russian Hill	6	3.6	16,879
Bernal Heights	8	3.2	24,725
Lone Mountain/ USF	5	3.1	16,387
Outer Richmond	12	2.7	44,049
Inner Richmond	5	2.5	20,261

San Francisco neighborhood[2]	Case count[3]	Case rate[3,4]	Population estimate[5]
West of Twin Peaks	9	2.4	36,882
Western Addition	5	2.3	22,066
Noe Valley	5	2.1	23,334
Inner Sunset	5	1.8	27,534
Sunset/ Parkside	12	1.6	75,455
Oceanview/ Merced/ Ingleside	<5	<2	24,770
Marina	<5	<2.1	23,733
Pacific Heights	<5	<2.2	22,976
Visitacion Valley	<5	<2.9	17,068
Mission Bay	<5	<3	16,710
Potrero Hill	<5	<3.2	15,463
Chinatown	<5	<4	12,644
North Beach	<5	<4.3	11,497
Presidio Heights	<5	<5	9,942
Glen Park	<5	<5.9	8,458
Twin Peaks	<5	<6.4	7,861
Japantown	<5	<12.7	3,936
Presidio	<5	<13.1	3,808
Seacliff	<5	<20.7	2,419

1. A total of 187/566 (33.0%) of newly reported cases could not be geocoded and are not shown.
2. Neighborhoods with a population fewer than 1,000 people are not included.
3. Case counts and case rates for neighborhoods with fewer than five cases are displayed as '<5' and less than the corresponding rate for five cases.
4. The case rate is the number of cases by neighborhood per 10,000 population.
5. San Francisco Population data source: American Community Survey 5-year estimate 2019-2023.[9]

Table 4. Count and percentage of active HCV infections in San Francisco as of December 31, 202

Neighborhood	Count of active infections[1,2]	Percentage of active infections[2]
Tenderloin	176	31.4%
South of Market	86	15.3%
Mission	67	11.9%
Bayview Hunters Point	45	8.0%
Hayes Valley	18	3.2%
Western Addition	15	2.7%
Nob Hill	15	2.7%
Financial District/ South Beach	14	2.5%
Mission Bay	10	1.8%
Bernal Heights	9	1.6%
Excelsior	9	1.6%
Castro/Upper Market	7	1.2%
Chinatown	7	1.2%
Treasure Island	6	1.1%
Sunset/ Parkside	6	1.1%
Russian Hill	6	1.1%
Noe Valley	6	1.1%
Haight Ashbury	6	1.1%
Outer Richmond	6	1.1%
Portola	5	0.9%
Twin Peaks	5	0.9%
Glen Park	<5	<0.9%
Inner Richmond	<5	<0.9%
Japantown	<5	<0.9%
Marina	<5	<0.9%
North Beach	<5	<0.9%
Outer Mission	<5	<0.9%
Pacific Heights	<5	<0.9%
Potrero Hill	<5	<0.9%
Presidio	<5	<0.9%
Presidio Heights	<5	<0.9%
Seacliff	<5	<0.9%
Visitacion Valley	<5	<0.9%
Lone Mountain/ USF	<5	<0.9%
West of Twin Peaks	<5	<0.9%
Inner Sunset	<5	<0.9%
Lakeshore	<5	<0.9%
Oceanview/Merced/Ingleside	<5	<0.9%

[1]The table represents 561 people. It excludes 329/890 (37.0%) people whose addresses could not be geocoded.
[2]Number and percentages are not shown for categories with fewer than 5 people

Table 5. Conditional proportions for Laboratory-Based HCV Clearance Cascade by Demographics, 2021 – 2024

	Ever infected[2]	Viral Tested[2]		Initial Infection[2]		Cured/Cleared[2]		Persistent infection/ reinfection[2]	
	Number	Number	% (row)	Number	% (row)	Number	% (row)	Number	% (row)
All	4,464	4,044	90.6%	1,686	41.7%	861	51.1%	18	2.1%
Reported gender[1]									
Male	3,097	2,795	90.2%	1,230	44.0%	628	51.1%	12	1.9%
Female	1,361	1,244	91.4%	456	36.7%	233	51.1%	6	2.6%
Other[3]	6	5	83.3%	0	0.0%	0	0.0%	0	0.0%
Age group (Years)									
0-19	21	20	95.2%	<5	<25.0%	<5	100.0%	0	0.0%
20-39	978	898	91.8%	461	51.3%	219	47.5%	7	3.2%
40-59	1,652	1,509	91.3%	660	43.7%	367	55.6%	8	2.2%
60+	1,813	1,617	89.2%	563	34.8%	273	48.5%	<5	<1.8%
Reported race and ethnicity[2]									
American Indian/Alaskan Native	98	87	88.8%	39	44.8%	19	48.7%	0	0.0%
Asian	460	426	92.6%	109	25.6%	74	67.9%	0	0.0%
Black/African American	960	863	89.9%	400	46.3%	185	46.3%	<5	<2.7%
Latino/a/x (all races)	332	288	86.7%	103	35.8%	60	58.3%	<5	<8.3%
Native Hawaiian/ ‘Pacific Islander	32	27	84.4%	6	22.2%	<5	83.3%	0	0.0%
White	2,280	2,084	91.4%	948	45.5%	483	50.9%	14	2.9%
Other	143	130	90.9%	39	30.0%	22	56.4%	0	0.0%

[1]Race/ethnicity was missing for 159/4,464 (3.6%) of the people in the ever-infected group.

[2]Number and percentages were not shown for categories with fewer than 5 cases.

Table 6. Count and percentage of HCV infected people cured/cleared by neighborhood, 2021-2024

San Francisco Neighborhood	Count of initial infections	Count of cured/cleared[1]	Percentage of cured/ cleared (%)[2]
Tenderloin	351	178	50.7%
South of Market	197	104	52.8%
Mission	151	86	57.0%
Bayview Hunters Point	91	46	50.5%
Western Addition	39	20	51.3%
Hayes Valley	39	20	51.3%
Financial District/South Beach	34	19	55.9%
Nob Hill	31	24	77.4%
Sunset/Parkside	24	19	79.2%
Twin Peaks	22	16	72.7%
Bernal Heights	22	12	54.5%
Excelsior	20	13	65.0%
Mission Bay	18	9	50.0%
Chinatown	18	12	66.7%
Visitacion Valley	17	12	70.6%
Castro/ Upper Market	16	12	75.0%
Outer Richmond	15	11	73.3%
Russian Hill	15	8	53.3%
Lone Mountain/USF	14	11	78.6%
Noe Valley	13	7	53.8%
Portola	12	7	58.3%
Oceanview/Merced/Ingleside	12	8	66.7%
West of Twin Peaks	12	9	75.0%
Pacific Heights	11	8	72.7%
Potrero Hill	10	6	60.0%
Lakeshore	10	6	60.0%
Haight Ashbury	9	5	55.6%
Inner Sunset	9	5	55.6%
Treasure Island	8	<5	<62.5%
Outer Mission	5	5	100.0%
Marina	5	<5	<100.0%
North Beach	5	<5	<100.0%
Glen Park	<5	<5	<100.0%
Inner Richmond	<5	<5	<100.0%
Japantown	<5	<5	<100.0%
Presidio	<5	<5	<100.0%
Presidio Heights	<5	<5	<100.0%
Seacliff	<5	<5	<100.0%

[1]Neighborhoods with counts that were less than five were not included in this table

[2]The table excludes 149/861 (17%) people with addresses that could not be geocoded.

Table 7. Conditional proportions for the hepatitis C clearance cascade for people with HIV in San Francisco[1], 2021-2024[2]

	Ever Infected[3]	Viral Testing[3]		Initial Infection[3]		Cured or Cleared[3]		Persistent Infection or Reinfection[3,4]	
	N	N	% (row)	N	% (row)	N	% (row)	N	% (row)
All	459	425	92.6%	132	31.1%	86	65.2%	5	5.8%
Sex at Birth[5]									
Female	65	62	95.4%	17	27.4%	9	52.9%		
Male	394	363	92.1%	115	31.7%	77	67.0%		
Age Group (Years)									
<20	0	0	0%	0	0%	0	0%		
20-39	72	67	93.1%	31	46.3%	18	58.1%		
40-59	213	202	94.8%	69	34.2%	49	71.0%		
60+	174	156	89.7%	32	20.5%	19	59.4%		
Race/Ethnicity[5, 6]									
Asian/Pacific Islander	24	20	83.3%	6	30.0%	6	100.0%		
Black/African American	90	85	94.4%	23	27.1%	14	60.9%		
Latino/a/x (all races)	100	92	92.0%	31	33.7%	23	74.2%		
White	238	221	92.9%	70	31.7%	42	60.0%		
Other/Unknown	7	7	100.0%	< 5	<71.4%	< 5	<100.0%		
Insurance at HIV Diagnosis[5, 7]									
Private	52	46	88.5%	11	23.9%	8	72.7%		
Public	147	140	95.2%	51	36.4%	34	66.7%		
None	96	90	93.8%	35	38.9%	21	60.0%		
Other/ Unknown	164	149	90.9%	35	23.5%	23	65.7%		
Person Experiencing Homelessness[5, 8]									
Yes	100	98	98.0%	42	42.9%	22	52.4%		
No	359	327	91.1%	90	27.5%	64	71.1%		
Unknown	0	0	0%	0	0%	0	0%		

Table 7. Conditional proportions for the hepatitis C clearance cascade for people with HIV in San Francisco[1], 2021-2024[2] (continued)

	Ever Infected[3]	Viral Testing[3]		Initial Infection[3]		Cured or Cleared[3]		Persistent Infection or Reinfection[3,4]	
	N	N	% (row)	N	% (row)	N	% (row)	N	% (row)
All	459	425	92.6%	132	31.1%	86	65.2%	5	5.8%
Injection Drug Use[5, 9]									
Yes	311	290	93.2%	92	31.7%	56	60.9%		
No	117	107	91.5%	34	31.8%	24	70.6%		
Unknown	31	28	90.3%	6	21.4%	6	100.0%		
MSM (Men Who Have Sex with Men)[5, 10]	(n=394)	(n=363)		(n=115)		(n=77)			
Yes	325	298	91.7%	90	30.2%	60	66.7%		
No	42	38	90.5%	14	36.8%	8	57.1%		
Unknown	27	27	100.0%	11	40.7%	9	81.8%		

1. Includes San Francisco residents living with HIV with at least one positive HCV lab reported during the ever-infected period (2021-2023), then tracked through the follow-up period (2021-2024). Inclusion in the cascade was restricted to those with at least one HCV result from facilities providing complete HCV RNA reporting to SFDPH. Determination of stages within the clearance cascade was restricted to HCV laboratory results received from 2021-2024.
2. 2021-2024 refers to time of HCV lab report.
3. Number and percentages are not shown for categories with fewer than 5 cases.
4. Demographic & other characteristic breakdowns are not provided for the 'Persistent Infection or Reinfection' stage of the cascade due to small counts.
5. Demographic & other characteristics from the SFDPH HIV/AIDS case registry.
6. Race/ethnicity category 'Other/Unknown' includes American Indian/Alaska Native and multi-race categories.
7. Primary source of health insurance at the time of HIV diagnosis. 'Other/Unknown' includes Healthy San Francisco (health access program) or reports from other jurisdictions indicating 'Other' as insurance.
8. Status based on the most recently reported address in the SFDPH HIV/AIDS case registry.
9. Injected drugs prior to HIV diagnosis.
10. Men who have sex with men (MSM) defined as persons born male who had sex with men. Number & percentage excludes persons born female.

Table 8. Characteristics of chronic HCV cases living with HIV in San Francisco[1], 2021-2024[2]

	All[3]	
	N	% (column)
All	588	100.0%
Sex at Birth[4]		
Female	66	11.2%
Male	522	88.8%
Age Group (Years)		
<15	0	0%
15-24	< 5	< 0.9%
25-34	30	5.1%
35-44	97	16.5%
45-54	122	20.7%
55-64	210	35.7%
65-74	109	18.5%
75+	19	3.2%
Race/Ethnicity[4, 5]		
Asian/Pacific Islander	31	5.3%
Black/African American	121	20.6%
Latino/a/x (all races)	130	22.1%
White	298	50.7%
Other/Unknown	8	1.4%
Insurance at HIV Diagnosis[4, 6]		
Private	94	16.0%
Public	153	26.0%
None	119	20.2%
Other/ Unknown	222	37.8%
Person Experiencing Homelessness[4, 7]		
Yes	96	16.3%
No	492	83.7%
Unknown	0	0%
Injection Drug Use[4, 8]		
Yes	356	60.5%
No	192	32.7%
Unknown	40	6.8%

Table 8. Characteristics of chronic HCV cases living with HIV in San Francisco[1], 2021-2024[2] (continued)

	All[3]	
	N	% (column)
All	588	100.0%
MSM (Men Who Have Sex with Men)[4, 9]	(n=522)	
Yes	445	85.2%
No	51	9.8%
Unknown	26	5.0%
Years between HCV and HIV Diagnosis[4]		
< 5	215	36.6%
5-9	116	19.7%
10-19	186	31.6%
20+	71	12.1%

1. San Francisco residents living with HIV and coinfected with HCV who meet the CDC/CSTE case definition for a confirmed or probable chronic hepatitis C case with at least one positive HCV lab from 2021-2024.
2. 2021-2024 refers to time of positive HCV lab report.
3. Number and percentages are not shown for categories with fewer than 5 cases.
4. Demographic & other characteristics from the SFDPH HIV/AIDS case registry.
5. Race/ethnicity category 'Other/Unknown' includes American Indian/Alaska Native and multi-race categories.
6. Primary source of health insurance at the time of HIV diagnosis. 'Other/Unknown' includes Healthy San Francisco (health access program) or reports from other jurisdictions indicating 'Other' as insurance.
7. Status based on the most recent reported address in the SFDPH HIV/AIDS case registry.
8. Injected drugs prior to HIV diagnosis.
9. Men who have sex with men (MSM) defined as persons born male who had sex with men. Number & percentage excludes persons born female.

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