

Viral Hepatitis C Surveillance Report, 2023

SAN FRANCISCO, CALIFORNIA



San Francisco Department Of Public Health
Viral Hepatitis Surveillance Program
Applied Research, Community Health
Epidemiology And Surveillance Branch (ARCHES)
Population Health Division



POPULATION HEALTH DIVISION
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH
DISEASE PREVENTION & CONTROL

Outline

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- SF Chronic Viral Hepatitis Registry

Methods

- Key terminology and definitions
- Data Limitations

2023 HCV Core Surveillance

- Overall
- Demographics
- Geography

Hepatitis C Clearance Cascade

- Overall
- Demographics
- Geography

Hepatitis C & HIV

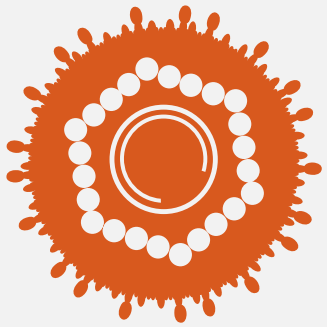
- Clearance Cascade
- Risk Factors

Next Steps

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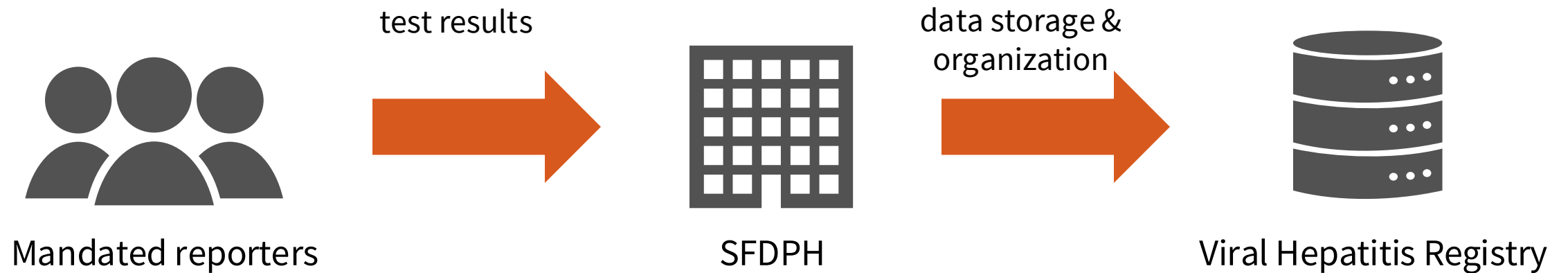
Overview of hepatitis C in SF

Hepatitis C Virus (HCV) in San Francisco



The **San Francisco Chronic Viral Hepatitis Registry** is a population-based registry that supports core surveillance of chronic hepatitis B and/or hepatitis C test results, along with basic demographic information (e.g., name, sex, birthdate, address)

San Francisco Chronic Viral Hepatitis Registry: CORE SURVEILLANCE



Registry data allow us to examine the characteristics of HCV test results that are reported from laboratorians, clinicians, and other mandated reporters within a given time period



Methods

Key terminology and definitions



Probable case of chronic hepatitis C* is a person >36 months of age:

- With a positive test for antibodies to hepatitis C virus (anti-HCV),
- With no report of an HCV nucleic acid test (NAT),
- Who has no report of, or does not meet, clinical or laboratory criteria indicative of an acute infection

Confirmed case of chronic hepatitis C* is a person >36 months of age:

- With a positive HCV RNA NAT, including qualitative, quantitative, or genotype testing;
- Who has no report of, or does not meet, clinical or laboratory criteria indicative of an acute infection

Key terminology and definitions



Newly reported cases are those who were reported to SFDPH with chronic hepatitis C for the first time and for whom no positive HCV laboratory report had previously been received

All cases are those who were reported to SFDPH with a positive HCV lab report in 2023, including both newly reported cases and cases reported for the first time prior to 2023

Data Limitations



- Surveillance data do not measure prevalence.
- Surveillance data do not measure incidence.
- HCV infection data potentially overestimate the number of persons reported with chronic HCV infection because they may include acute, resolved, or cured HCV infections.
- Reporting gaps exist for labs that do not report electronically. Death data are not reported; cases who may have died after being reported to SFDPH are included.
- Lab reports are often missing information on patient race, ethnicity, and residential address. Cases with unknown addresses or those who may have moved out of SF are included in this report.
- Duplication of cases may occur if reports from the same person utilize multiple names. Conversely, cases may be erroneously matched.



2023 HCV Core Surveillance

Key Findings: 2023 HCV Core Surveillance



- There were 655 newly reported chronic hepatitis C cases in San Francisco in 2023
- Chronic hepatitis C cases reported in San Francisco were predominantly male
- Newly reported cases trended younger relative to all reported cases
- Black/African Americans in San Francisco are disproportionately affected by hepatitis C
- The Tenderloin and South of Market neighborhoods bear the greatest burden of hepatitis C in San Francisco

San Francisco chronic hepatitis C reports in 2023

2023

5,260 positive hepatitis C laboratory results

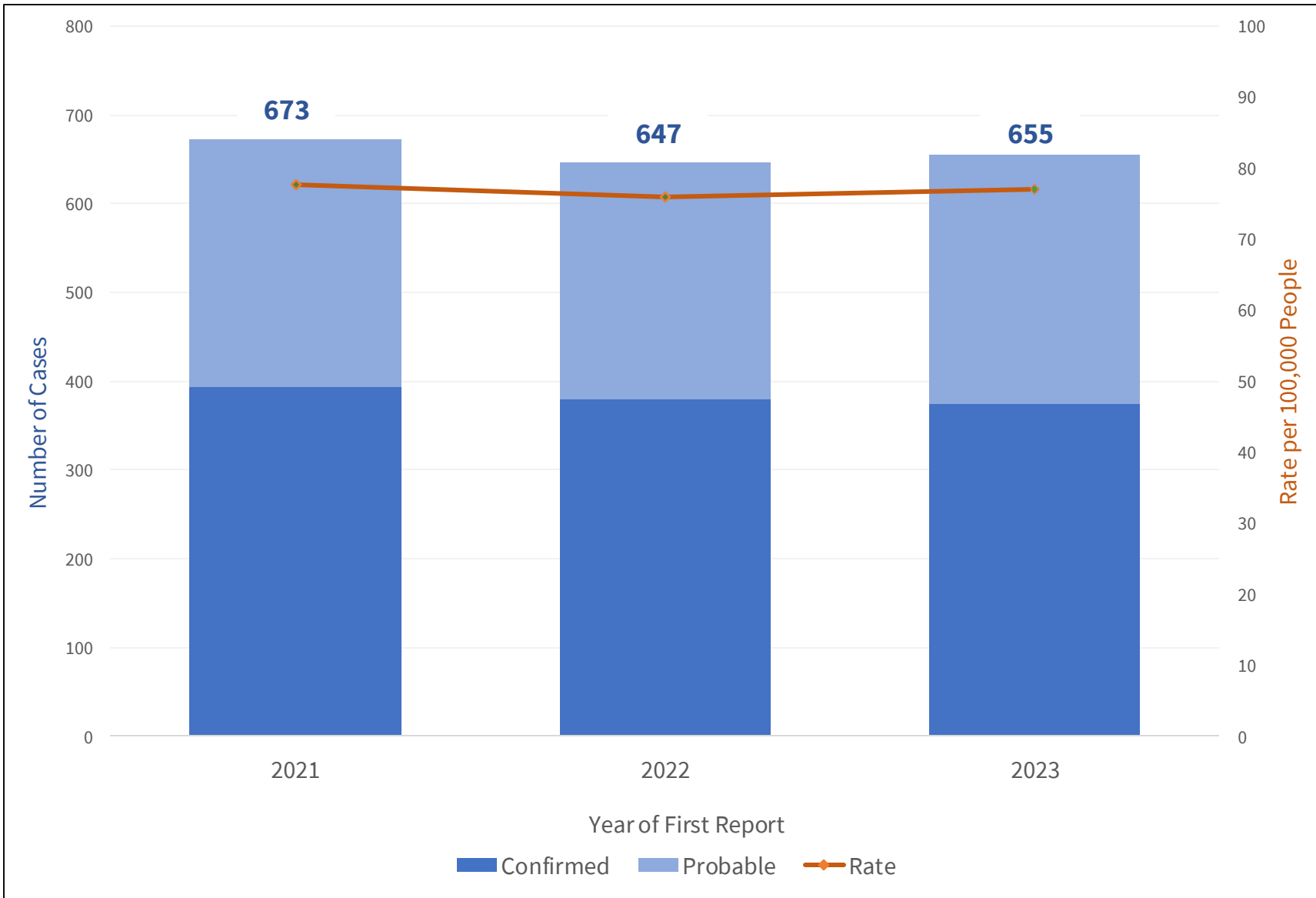


2,500 individuals with probable or confirmed chronic hepatitis C



655 (26.2%) of these were newly reported

Number & rate of newly reported chronic hepatitis C cases, 2021-2023



Number of newly reported chronic hepatitis C cases in San Francisco in 2023:

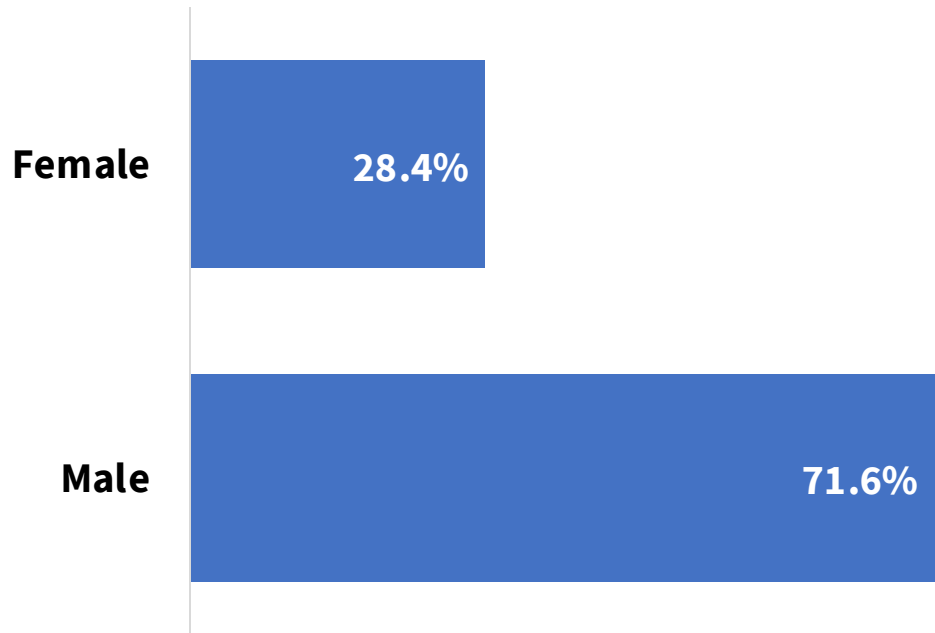
655

Rate of newly reported chronic hepatitis C cases in San Francisco in 2023:

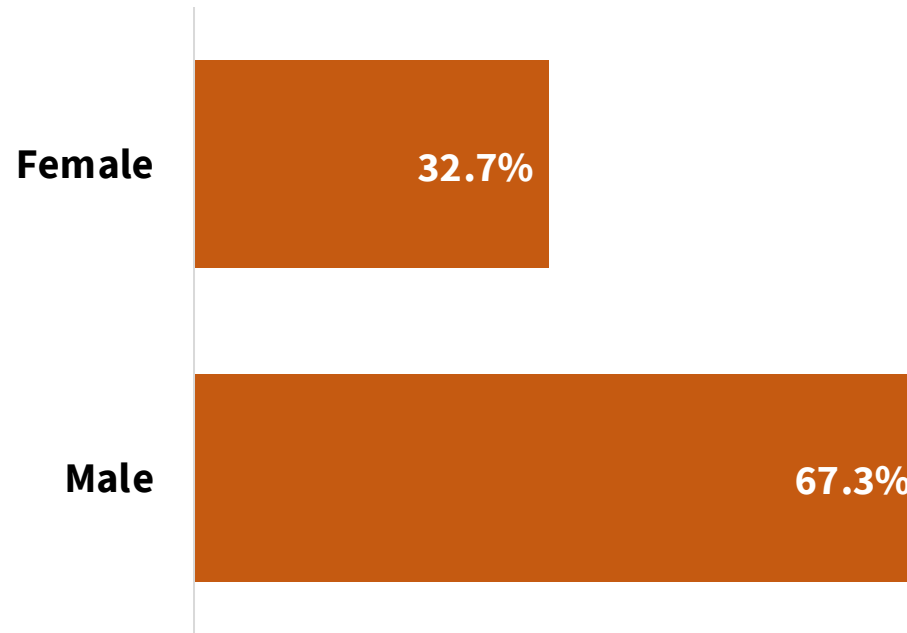
77.0
per 100,000 people

Reported sex of chronic hepatitis C cases, 2023

All Reported Cases (n=2500)



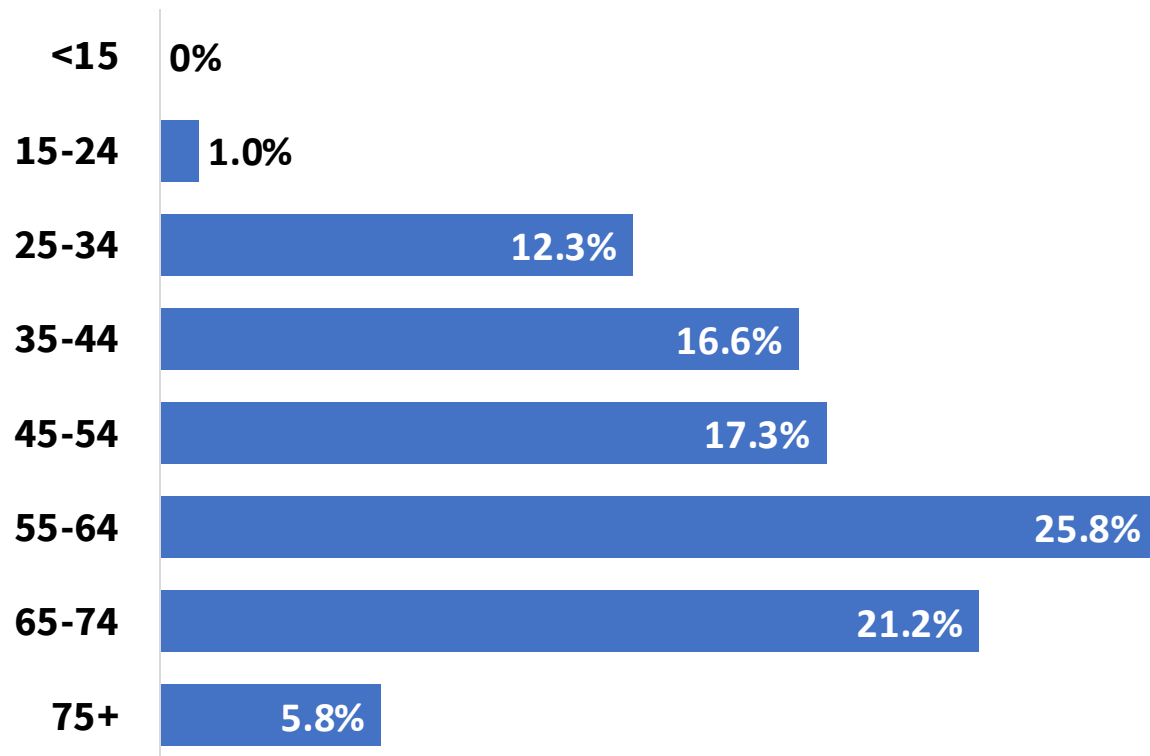
Newly Reported Cases (n=655)



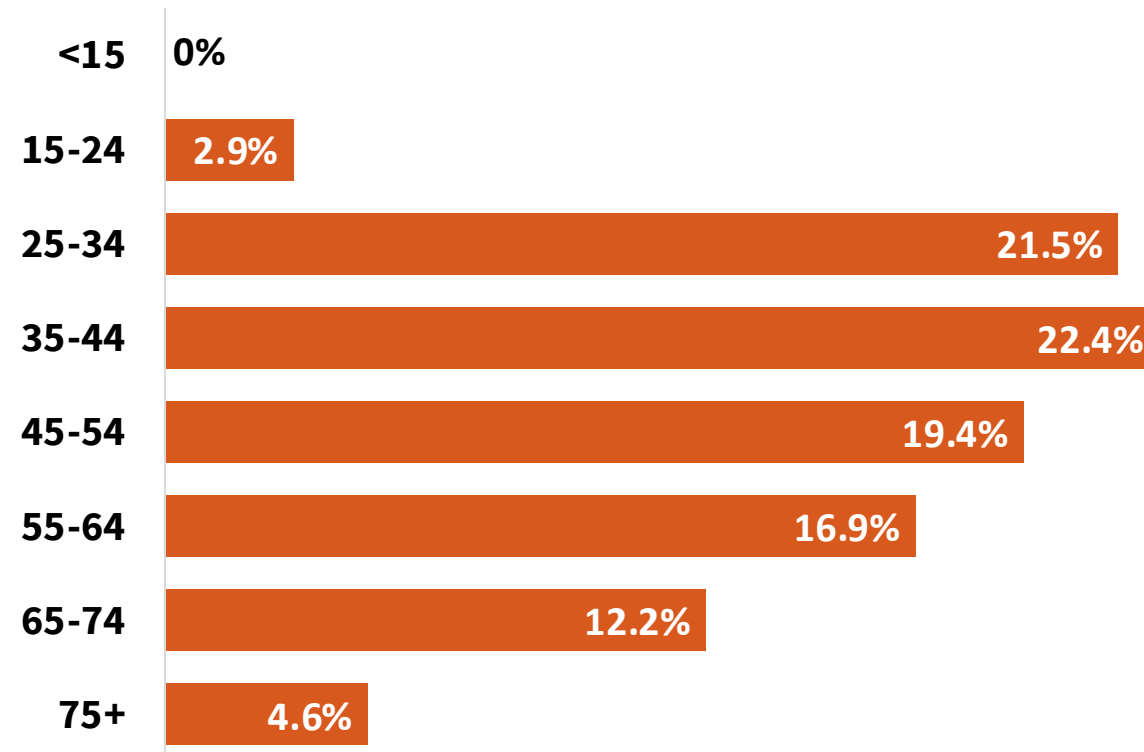
Over 2/3 of cases were **male**

Age group of chronic hepatitis C cases, 2023

All Reported Cases (n=2500)



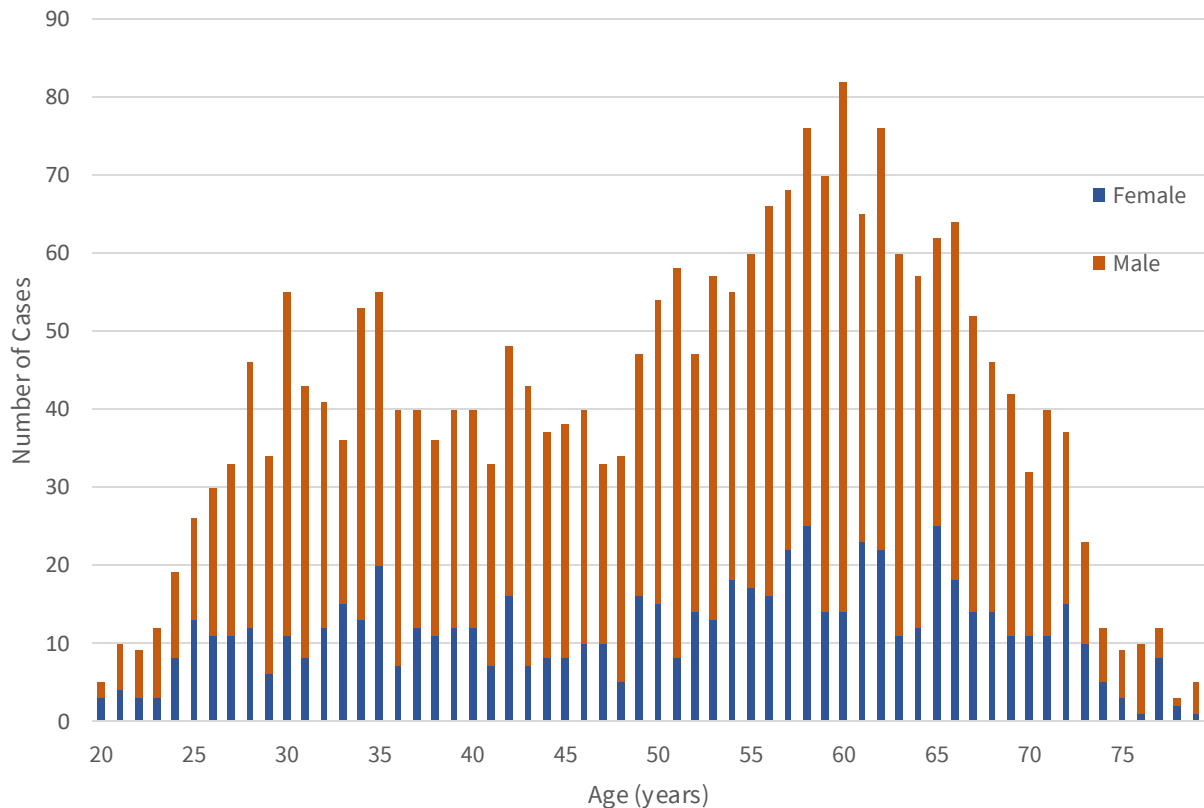
Newly Reported Cases (n=655)



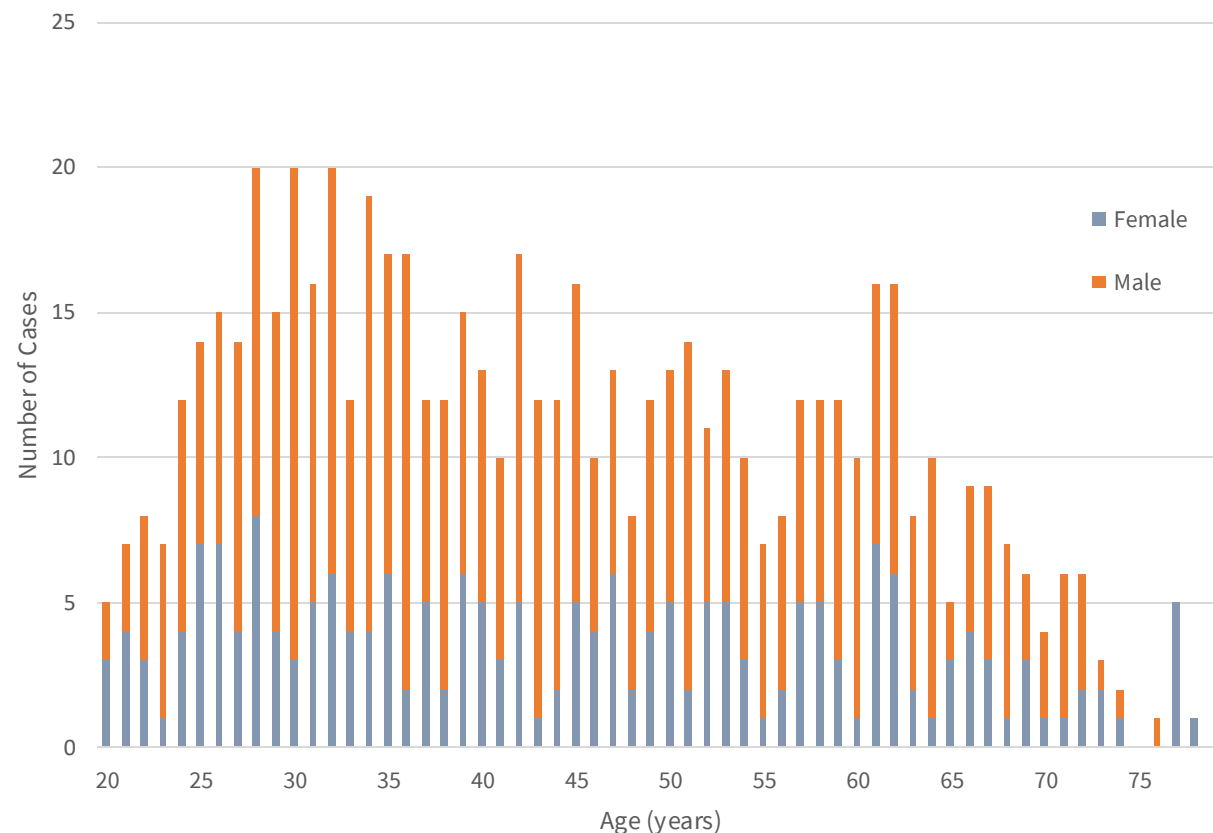
The age groups with the highest proportion of cases were **55-64 years** among all reported cases and **35-44 years** among newly reported cases

Sex & age distribution of chronic hepatitis C cases, 2023

All Reported Cases*



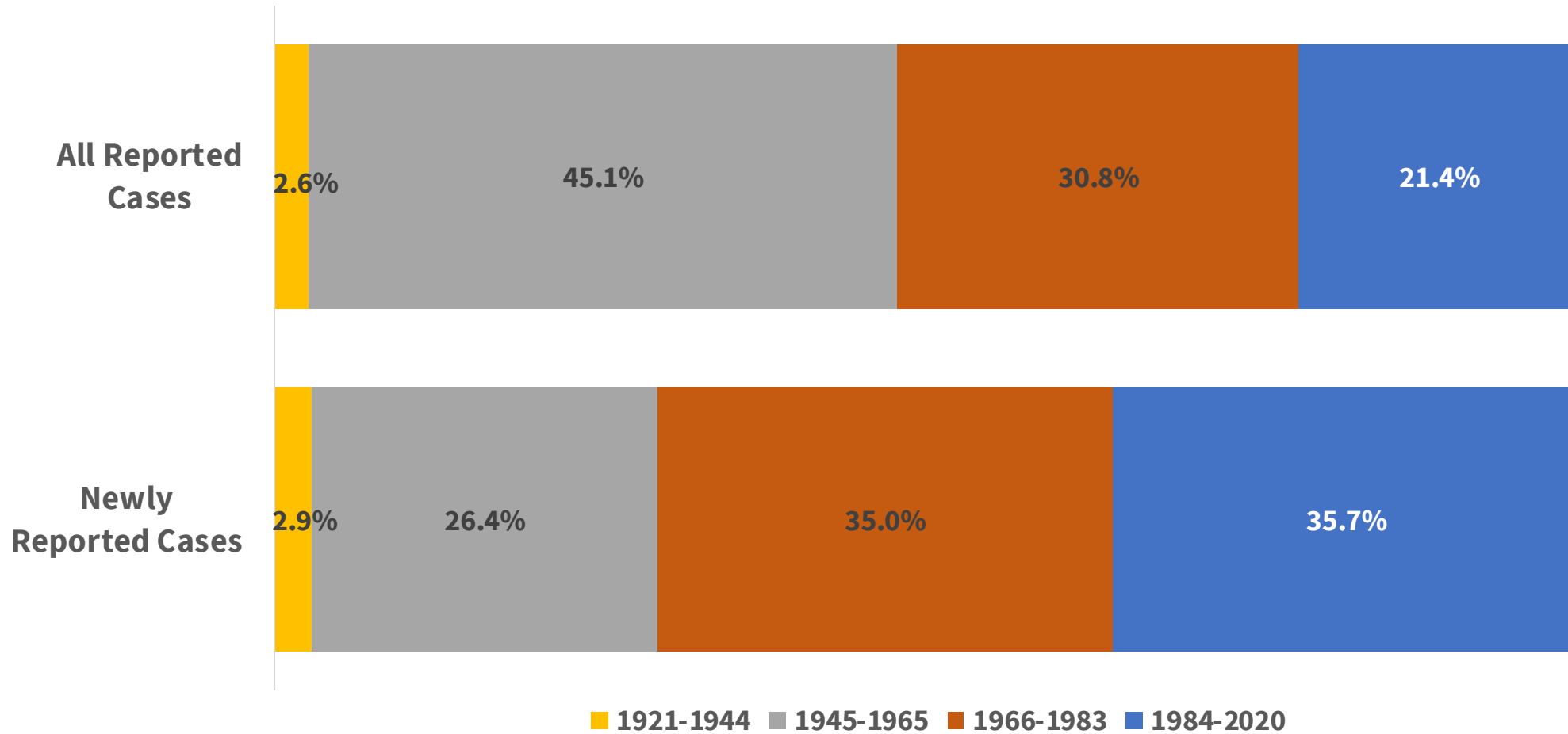
Newly Reported Cases*



Compared to all reported cases (left), newly reported cases (right) trend **younger in age**

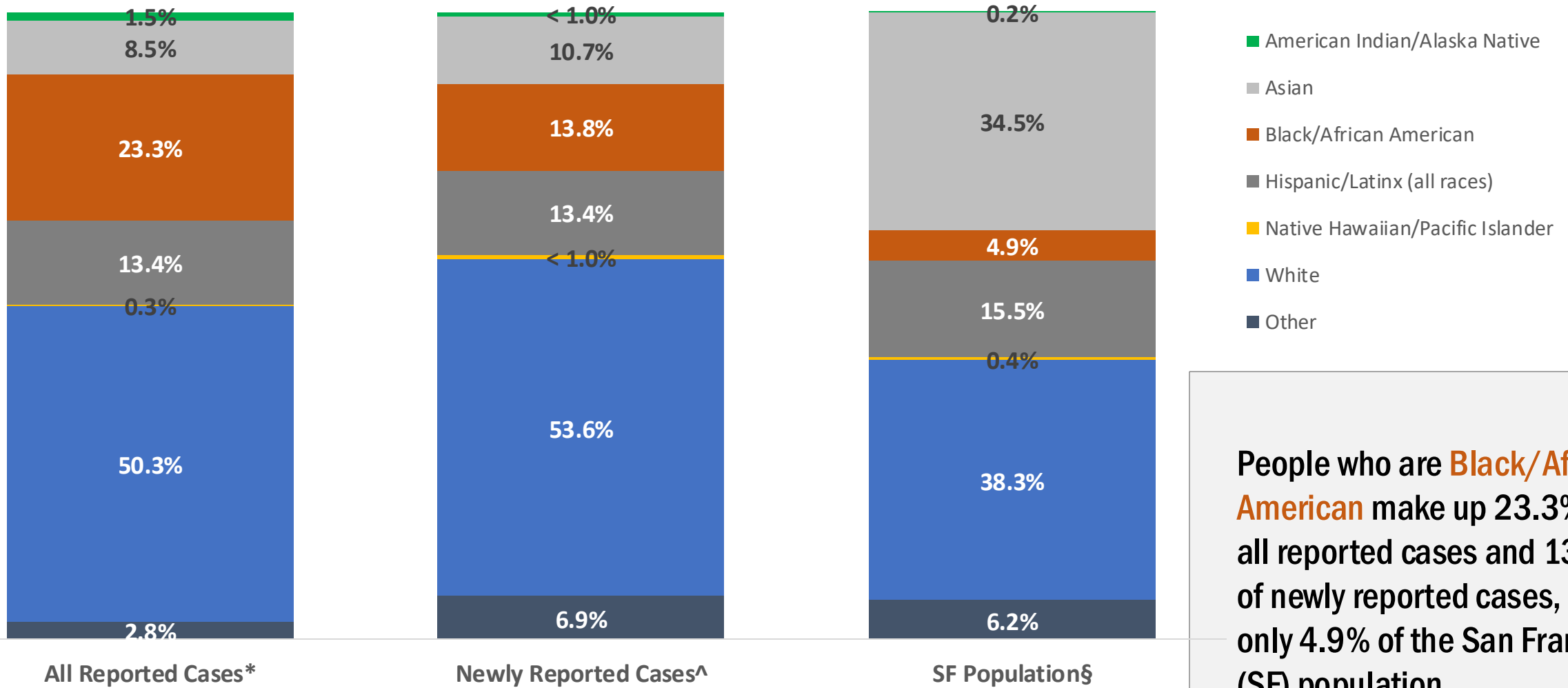
*Please note that these figures use different y axes when showing the numbers of cases

Birthyear cohort of chronic hepatitis C cases, 2023



Newly reported cases were more likely to be **born in or after 1984** and less likely to be born in the baby boomer cohort (between 1945 and 1965)

Race/ethnicity of chronic hepatitis C cases in 2023 and the San Francisco population



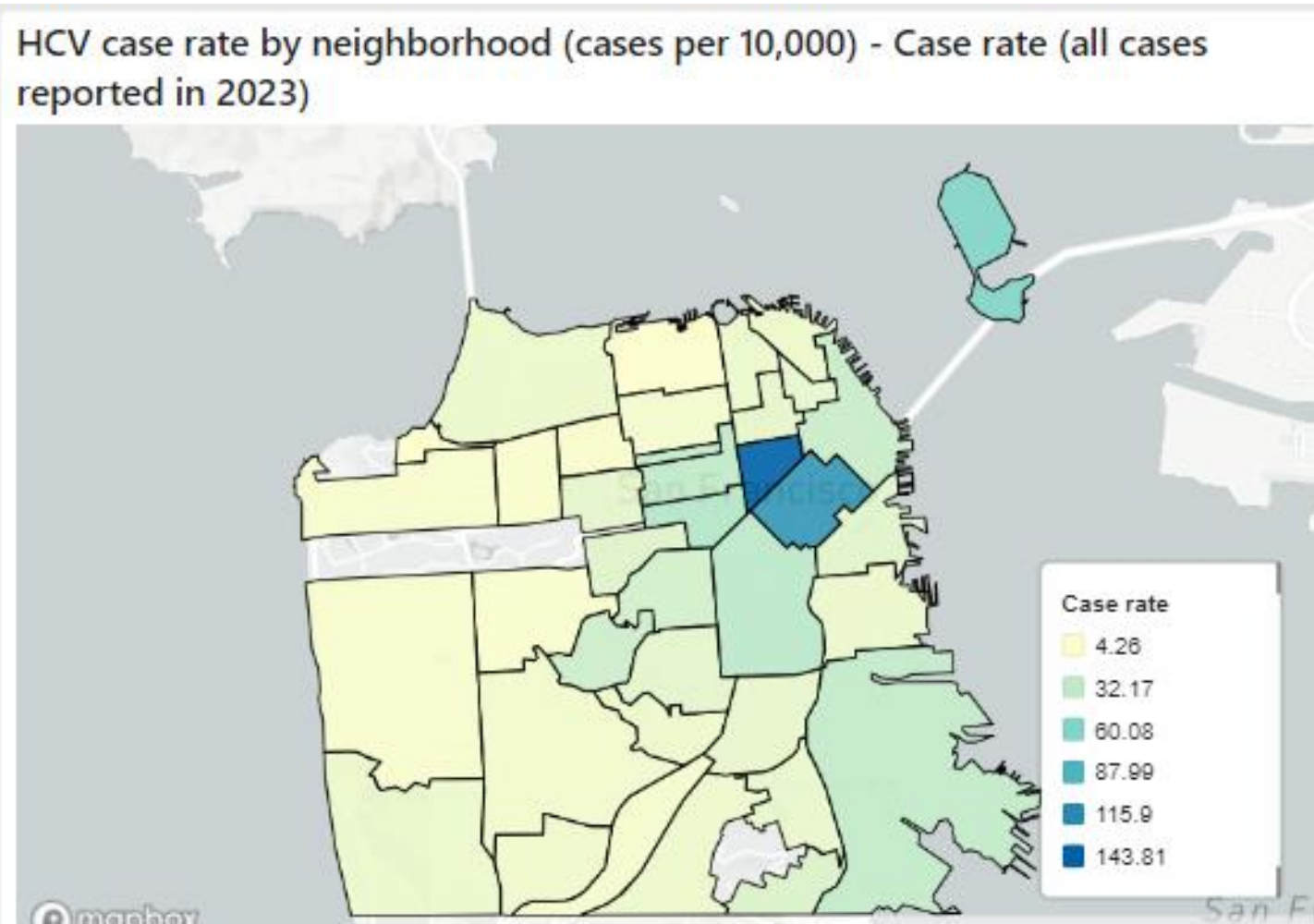
People who are **Black/African American** make up 23.3% of all reported cases and 13.8% of newly reported cases, but only 4.9% of the San Francisco (SF) population

* Race/Ethnicity data missing for 172/2500 (6.9%) of all reported cases in 2023.

^ Race/Ethnicity data missing for 133/655 (20.3%) of cases newly reported in 2023.

§ San Francisco Population data source: 5-year 2017-2022 American Community Survey (ACS)

All reported chronic hepatitis C cases in San Francisco by neighborhood, 2023

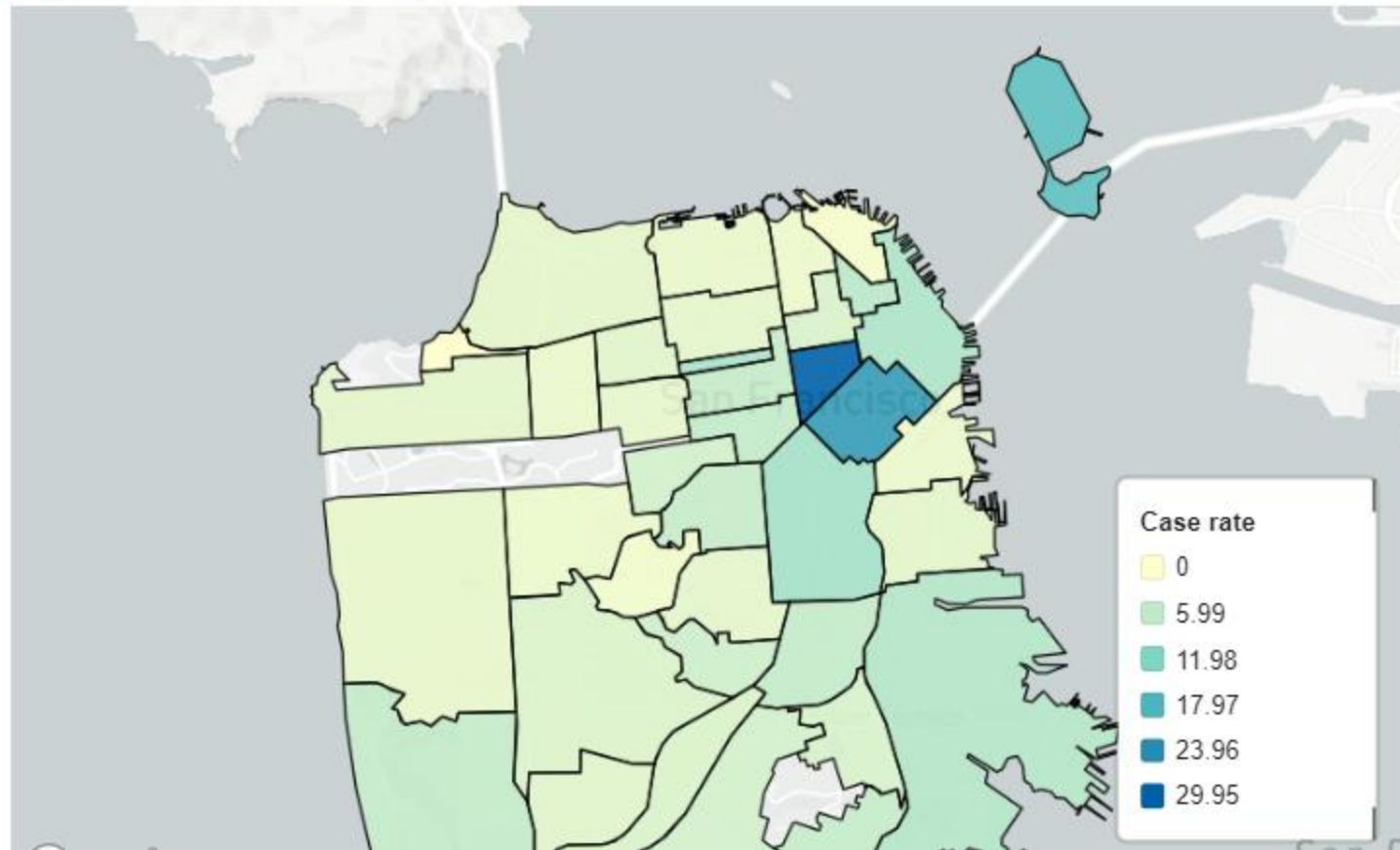


The highest case rates of all reported HCV cases occurred in the **Tenderloin (143.8)** and **South of Market (107.7)** neighborhoods

- 485/2500 (19.4%) of all reported cases could not be geocoded and are not shown.
- Case counts and rates are not shown for neighborhoods with fewer than five cases or for neighborhoods with a population fewer than 1,000 people.
- San Francisco Population data source: American Community Survey 5-year estimate 2017-2022

Newly reported chronic hepatitis C cases in San Francisco by neighborhood, 2023

HCV case rate by neighborhood (cases per 10,000) - Case rate (newly reported cases in 2023)

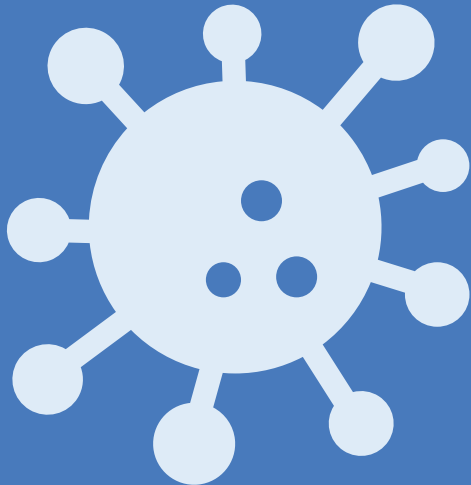


Newly reported HCV cases were **highest** in the **Tenderloin (29.9)** and **South of Market (21.6)** neighborhoods

- 181/655 (27.6%) of newly reported cases could not be geocoded and are not shown.
- Case counts and rates are not shown for neighborhoods with fewer than five cases or for neighborhoods with a population fewer than 1,000 people.
- San Francisco Population data source: American Community Survey 5-year 2017-2022

4 Hepatitis C Clearance Cascade

Key Findings: HCV Clearance Cascade



- 63% of people with an HCV infection remained active with HCV
- Young people (25 years-34 years) and people 64+ years had lower proportions of clearance/cure from HCV infection
- Black/ African Americans had the highest proportion of active HCV infections and among the lowest proportions of clearance/cure
- The Tenderloin had the highest number of reported active HCV infections

Selection Criteria for the Hepatitis C Clearance Cascade

 Years included: January 1, 2021- December 31, 2023

 Patients with at least one hepatitis C antibody positive or hepatitis C RNA test positive result (ever positive) from four high volume facilities*

 Ever positive period: January 1, 2021 – December 31, 2023

 Follow-up period: January 1, 2021- December 31, 2023

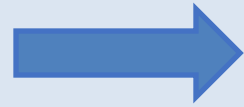
* These facilities fully reported non-positive HCV RNA test results to SFDPH between 2021 and 2023.

Hepatitis C Clearance Cascade Definitions

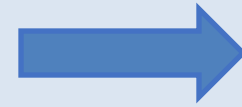
- **Ever Infected** – People with HCV RNA positive test result or an HCV antibody positive test result (past or active hepatitis C infection)
- **Viral Tested** – People with either HCV RNA positive or negative test result
- **Virus Detected** – People who ever had an HCV RNA positive test result
- **Virus Cleared or Cured** – People whose last HCV RNA result was negative as of December 31, 2023, following at least one HCV RNA positive test result
- **Active infection** – People whose last HCV RNA test result was positive as of December 31, 2023

Snapshot of Findings from Hepatitis C Clearance Cascade

82%



44%



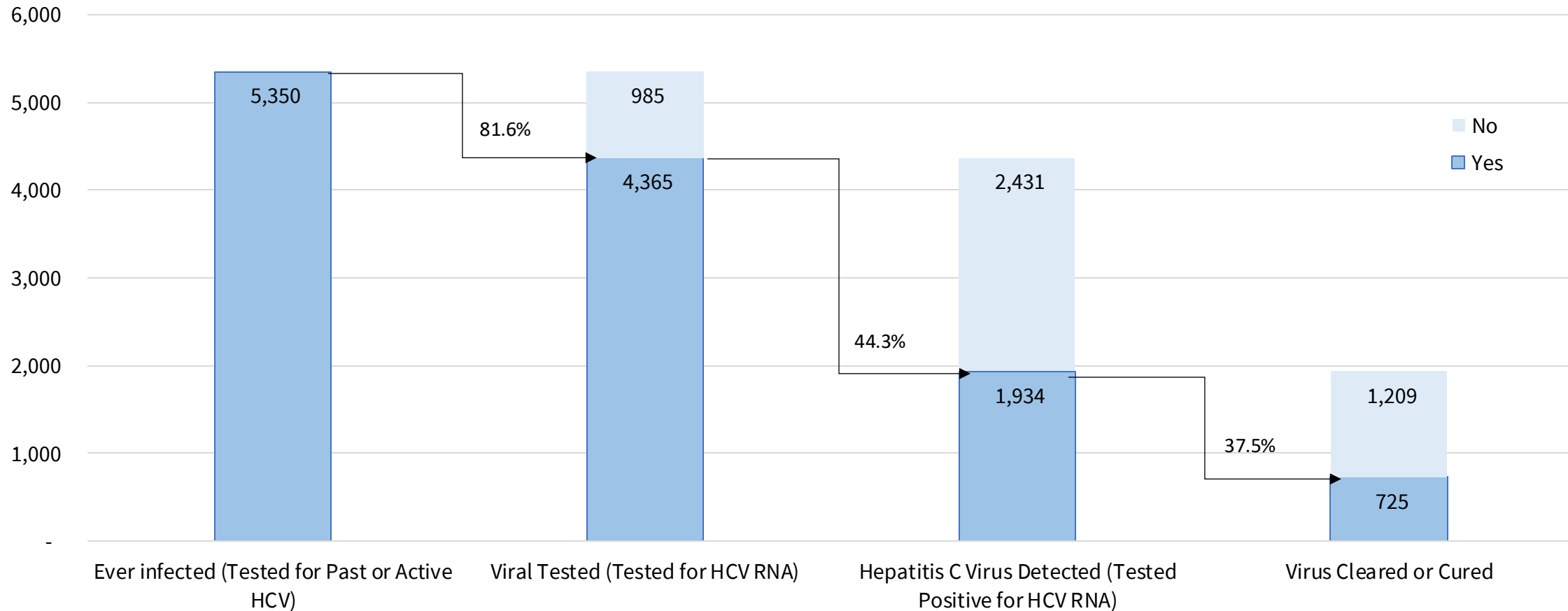
38%

of ever infected people
received testing for
hepatitis C RNA

of people with hepatitis C
RNA test results had a
hepatitis C RNA positive
test result

of people with a hepatitis
C RNA positive test result
were cleared or cured of
HCV

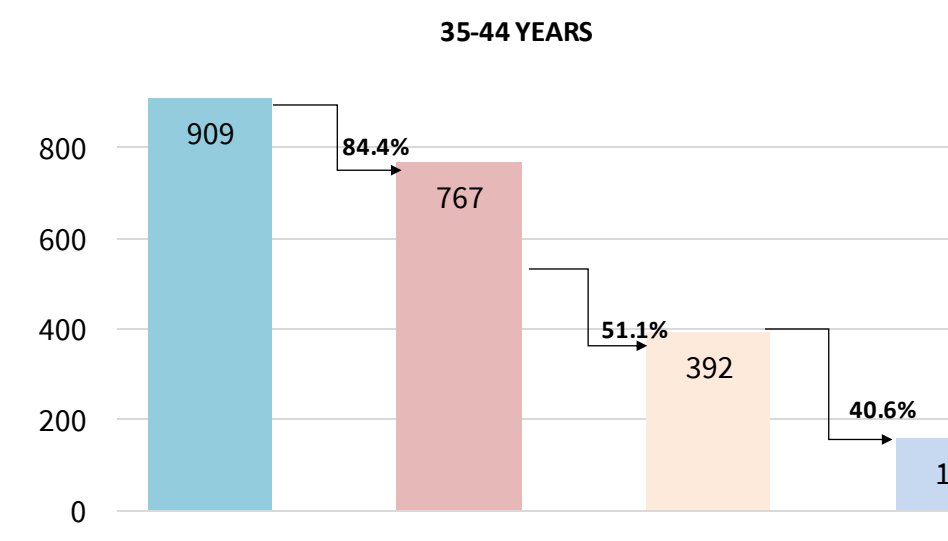
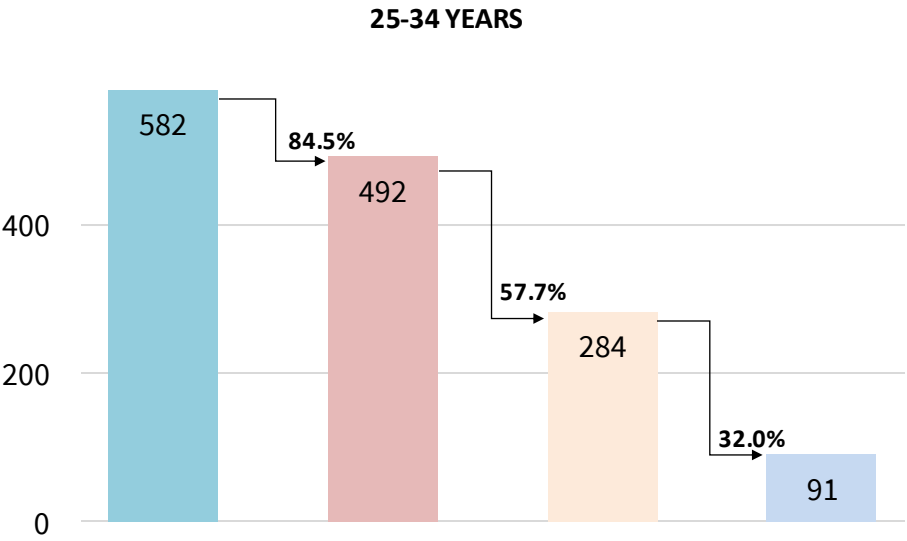
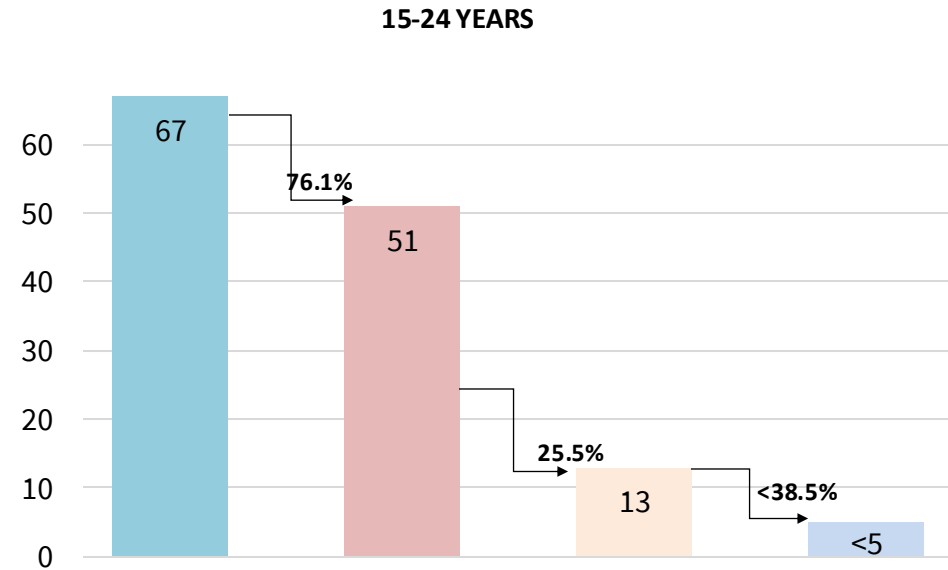
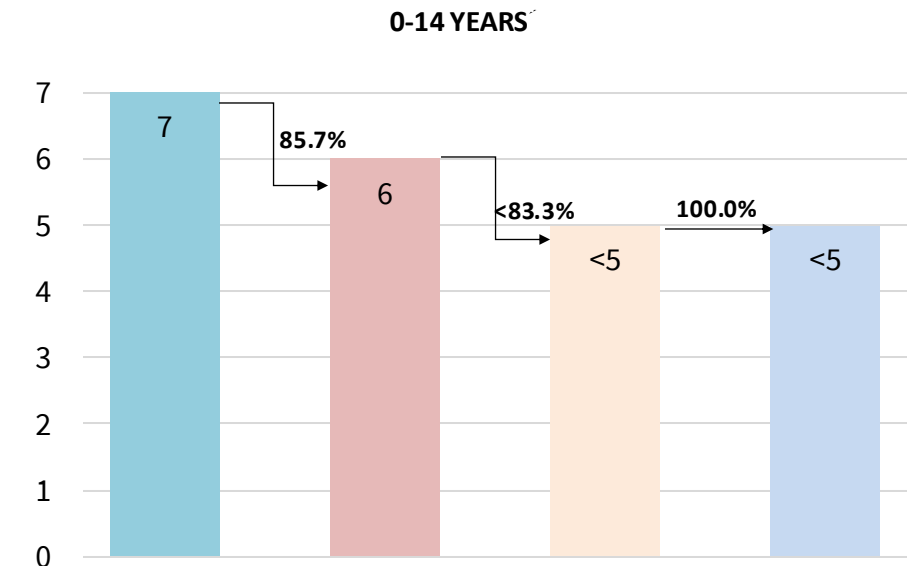
Hepatitis C Clearance Cascade (January 1, 2021 – December 31, 2023)



- **18% (985) of ever infected people** did not receive a test for HCV RNA
- **More than 1200 people (63%)** with a positive test result for HCV RNA **remained infected**

Note: All percentages are based on the previous cascade stage

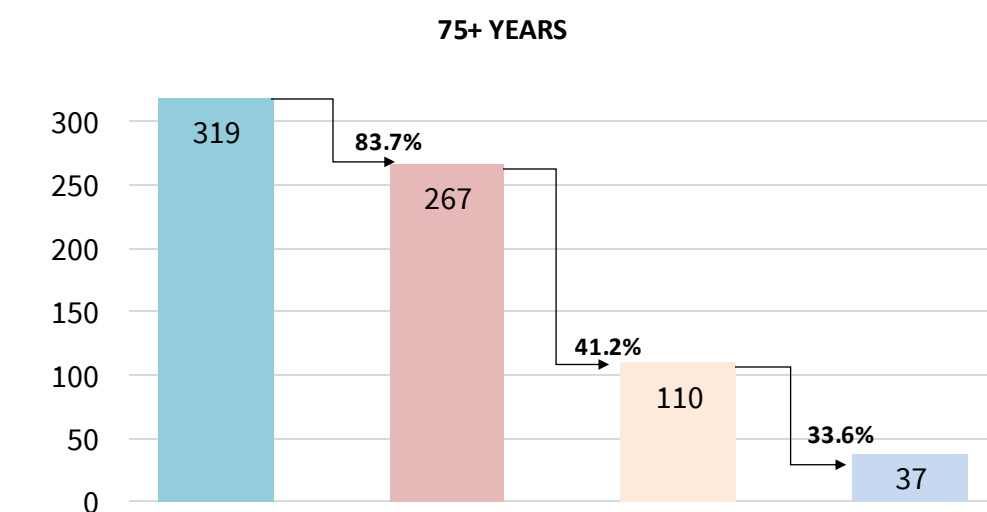
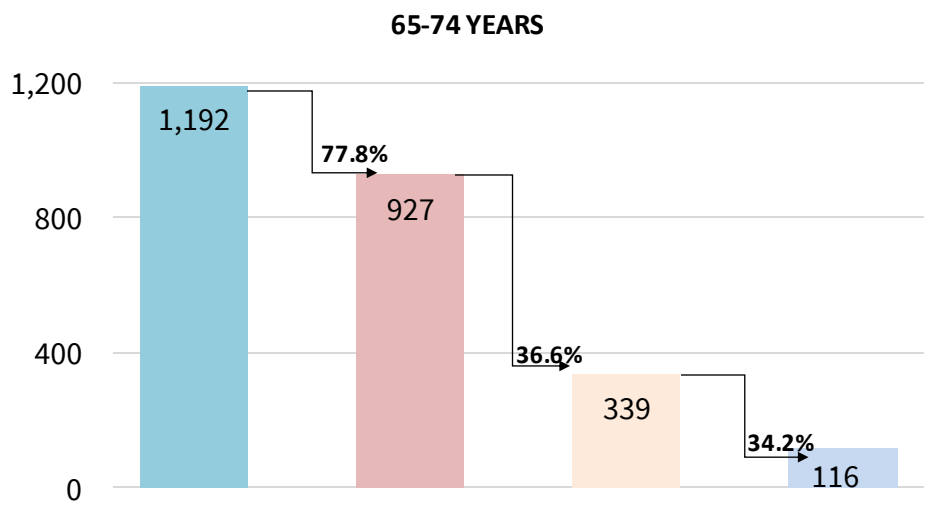
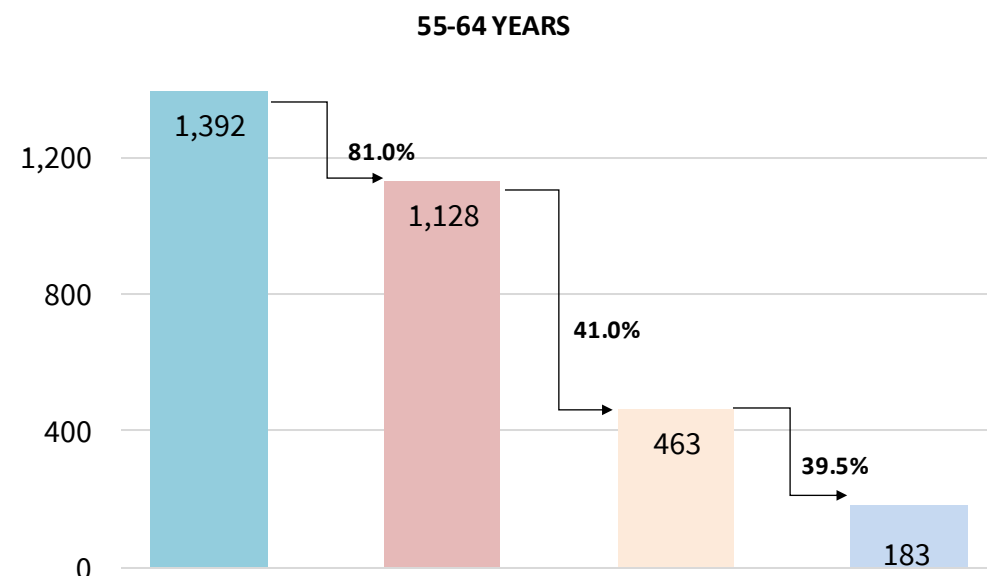
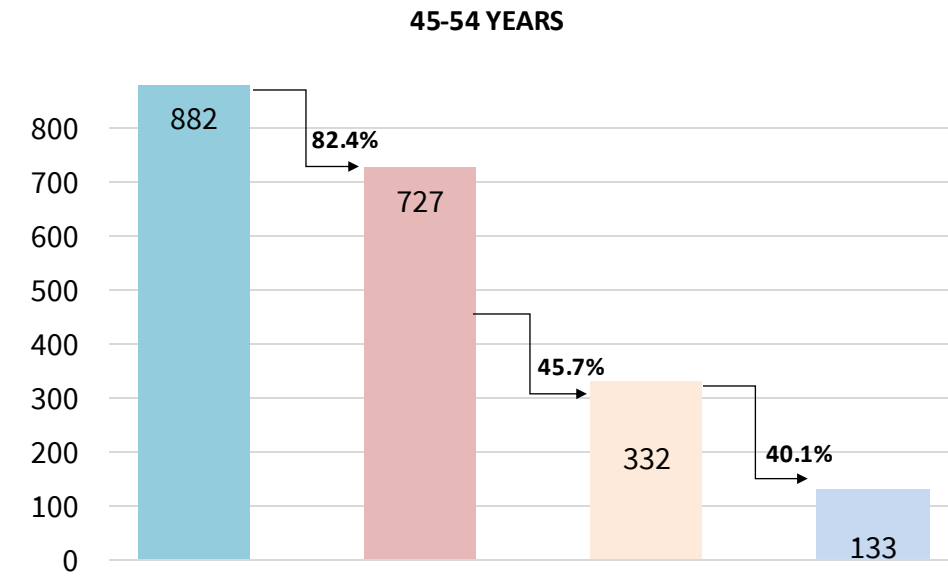
Number and Proportion of People in the Hepatitis C Clearance Cascade by Age



People who were between 25 years and 34 years old (32.0%) had the lowest proportion of clearance or cure

Note: All percentages are based on the previous cascade stage

Number and Proportion of People in the Hepatitis C Clearance Cascade by Age (Continued)

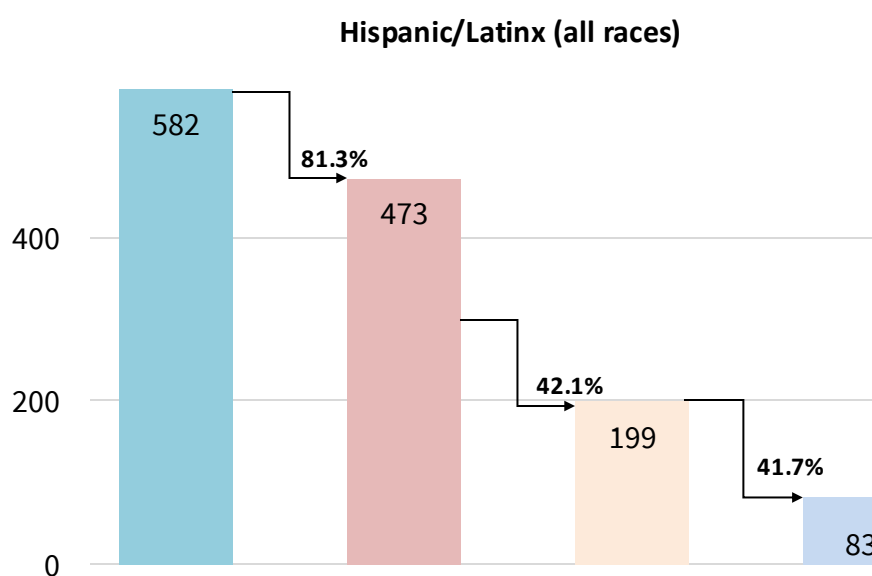
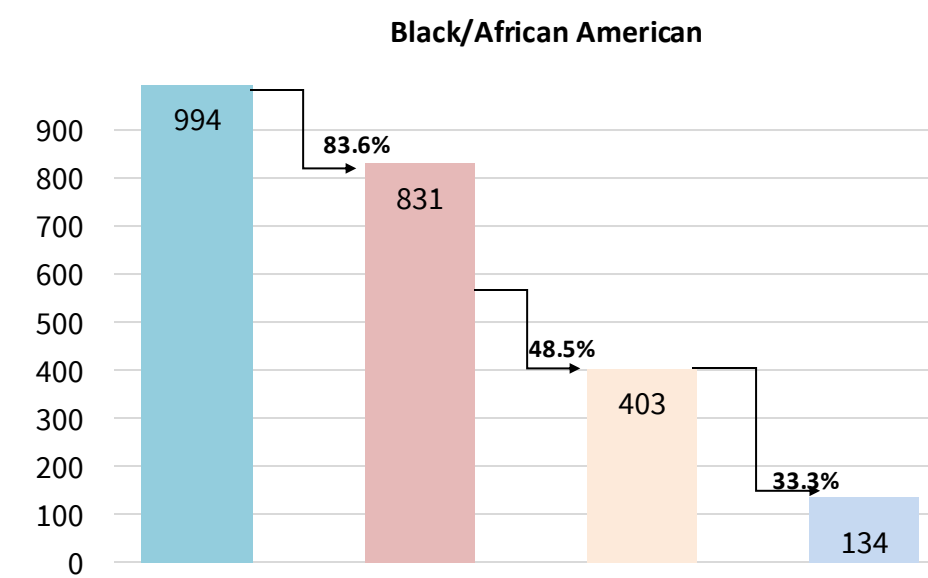
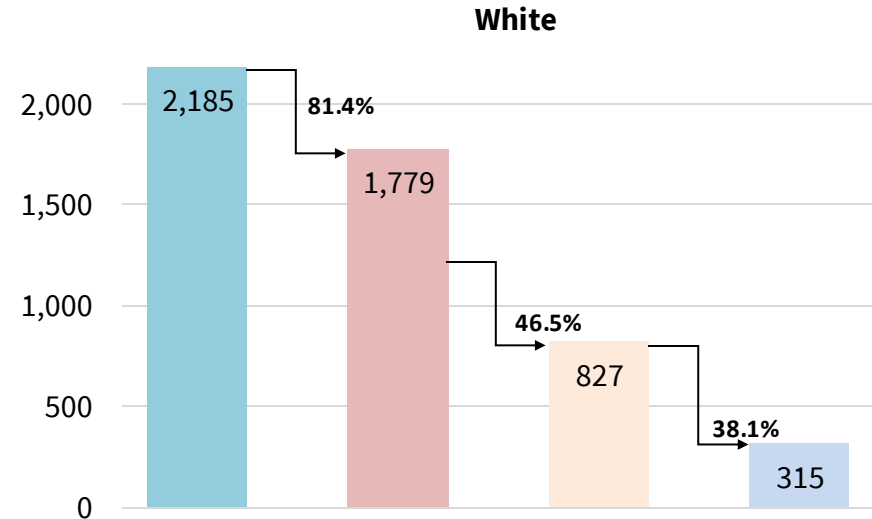
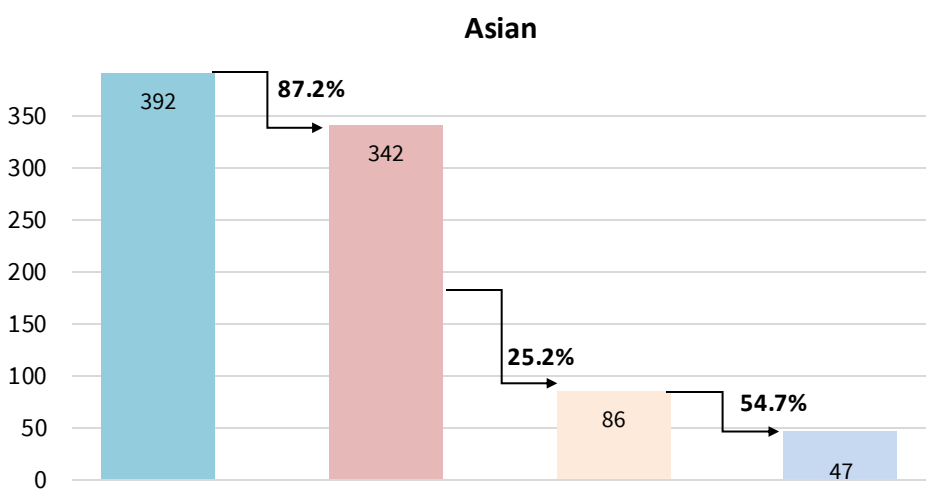


Clearance or cure across all age groups was below the 2025 target goal of 58% but within the national median percentage¹

Note: All percentages are based on the previous cascade stage

¹ Tsang CA, Tonzel J, Symum H, et al. State-Specific Hepatitis C Virus Clearance Cascades — United States, 2013–2022. MMWR Morb Mortal Wkly Rep 2024;73:495–500.

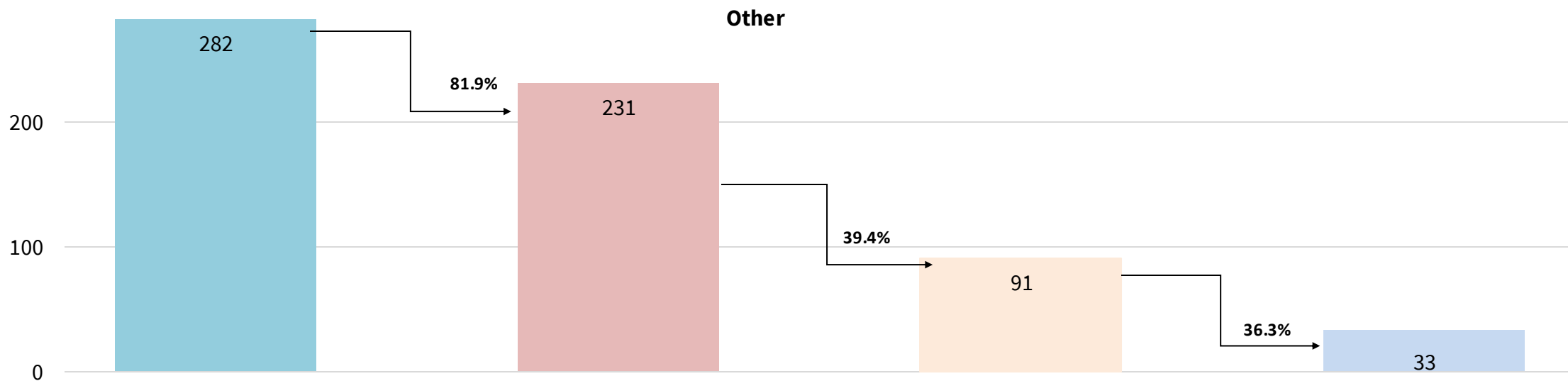
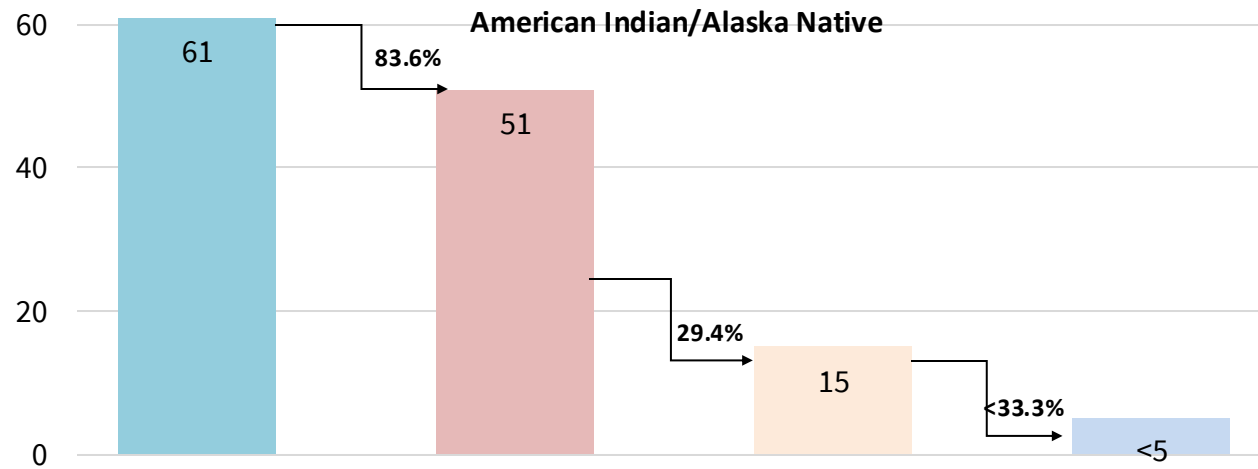
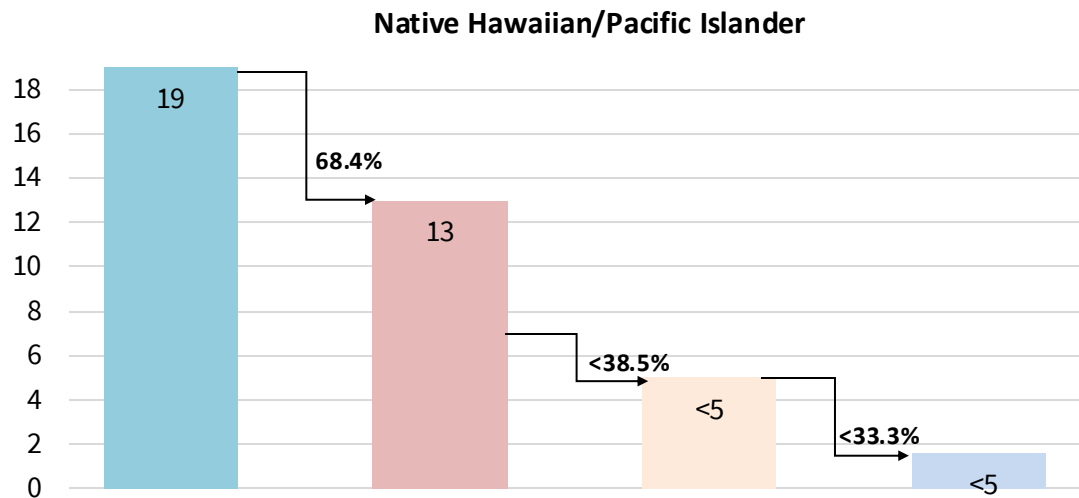
Number and Proportion of People in the Hepatitis C Clearance Cascade by Race and Ethnicity



Black/ African Americans had the highest proportion of HCV active infection (48.5%) of people but among the lowest proportions (33.3%) of clearance or cure from HCV infection

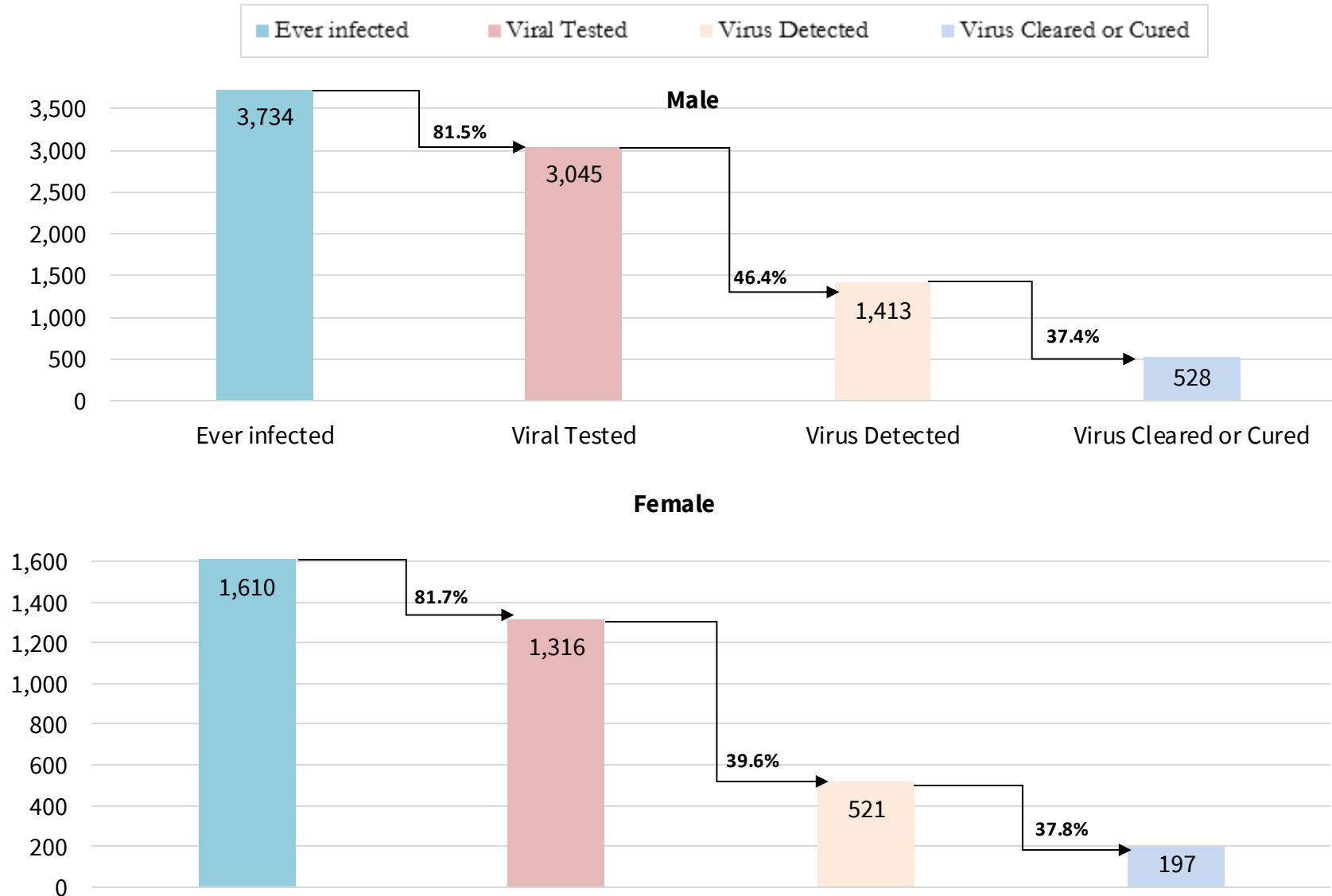
Note: All percentages are based on the previous cascade stage

Number and Proportion of People in the Hepatitis C Clearance Cascade by Race and Ethnicity



Note: All percentages are based on the previous cascade stage

Number and Proportion of People in Clearance Cascade by Sex

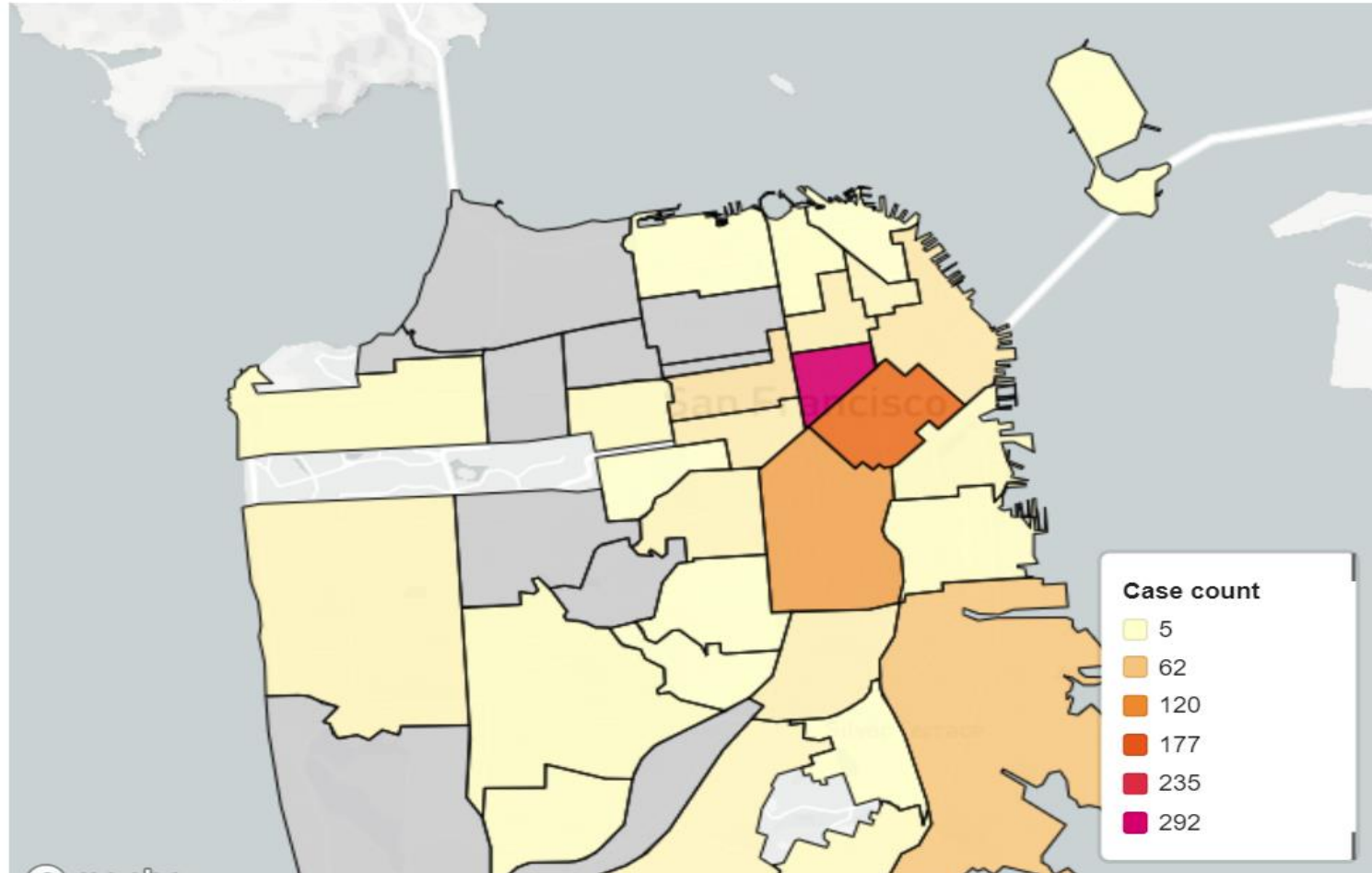


Males(37.4%) and females (37.8%) had comparable proportions of HCV RNA testing and clearance or cure

Note: All percentages are based on the previous cascade stage

Active Hepatitis C infections Reported in San Francisco 2023 by Neighborhood*

HCV cases by neighborhood with no indication of clearance as of 12/31/23



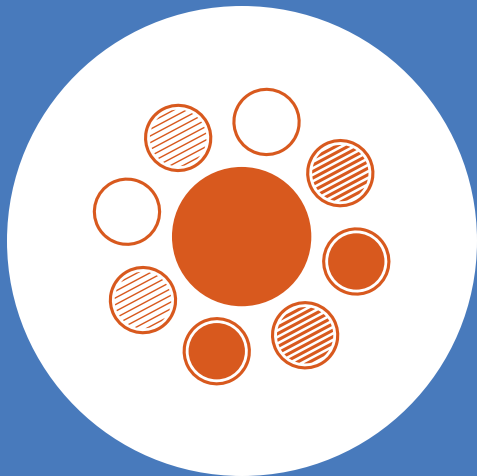
The top 3 neighborhoods with active cases were observed in the **Tenderloin District (292 people)**, **South of Market (148 people)**, and **Mission (92 people)** neighborhoods

- Counts of people were used instead of rates, since the underlying population that was served by these facilities could not be estimated.
- The map does not include addresses of 290/1,209 (23.9%) people with laboratory evidence of viral hepatitis C infection as of December 31, 2023. These addresses could not be geocoded. Therefore, the map represents 919 people.
- Data on HCV cases in San Francisco with laboratory evidence of viral hepatitis C infection as of December 31, 2023, only include cases with test results from laboratories and medical centers that provided complete reporting of positive and negative/undetected HCV test results to SFPDPH between 2021 and 2023.
- Case counts not shown for neighborhoods with fewer than five cases or for neighborhoods with a population fewer than 1,000 people.



Hepatitis C and HIV

Key Findings: Hepatitis C and HIV



Among confirmed chronic HCV cases
coinfected with HIV:

- Almost two thirds were cleared or cured of their HCV infection as of the end of 2023
- Over one fifth did not have insurance at the time of their HIV diagnosis
- Nearly two thirds had a history of injection drug use and over 80% of persons born male were MSM

Hepatitis C and HIV, San Francisco, 2021-2023¹

HCV & HIV/AIDS registry match²

7,371 individuals in the hepatitis registry ever infected with HCV with at least one positive HCV lab result reported from 2021-2023



653 individuals ever infected with HCV and living with HIV

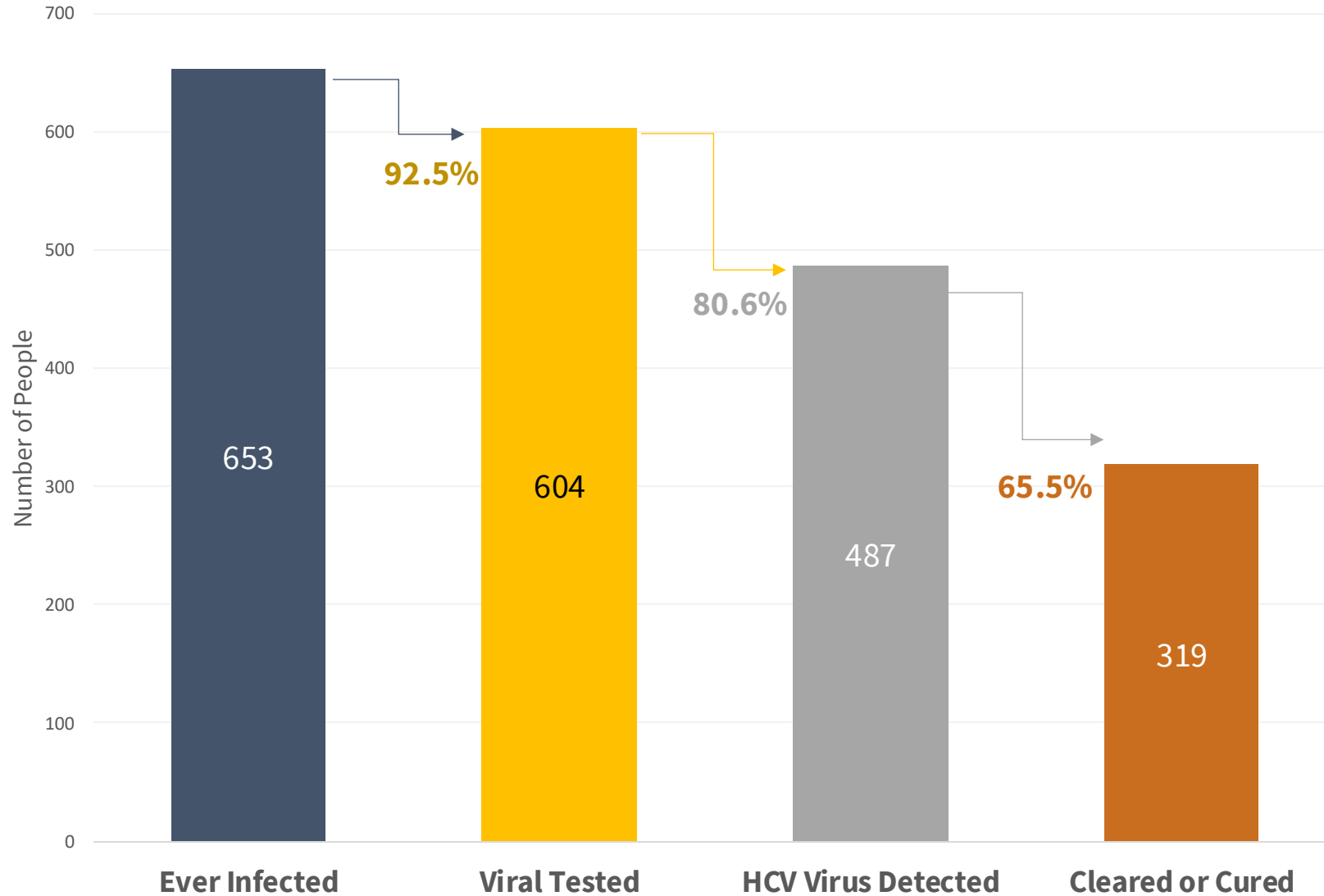


487 of these are confirmed HCV cases with HIV

1. 2021-2023 refers to time of positive HCV lab report.

2. Match with whole HIV/AIDS case registry conducted by staff in the SFPD HIV Epidemiology Section

Hepatitis C clearance cascade for people with HIV, 2021-2023



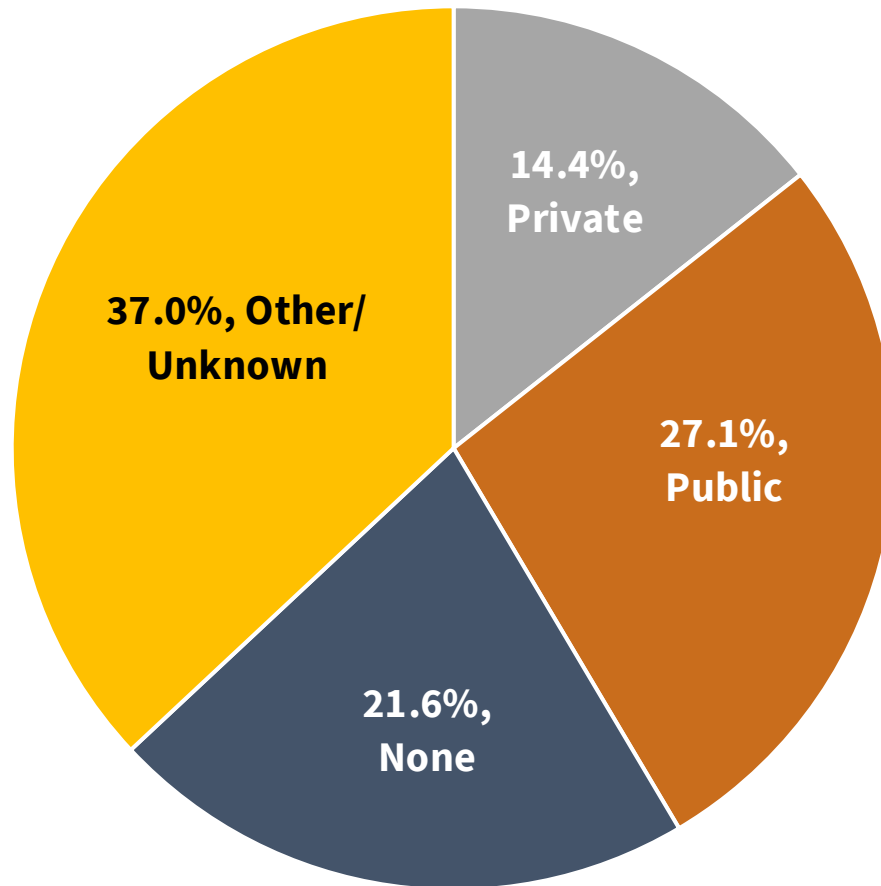
Almost 2/3 of coinfecting cases with a positive HCV viral test were cleared or cured of HCV as of the end of 2023

Ever Infected: any positive HCV test result ever reported, including anti-HCV, RNA, or genotype
HCV Virus Detected: any positive HCV viral test result ever reported, including RNA or genotype

Viral Tested: any HCV viral test result ever reported, including RNA or genotype
Cleared or Cured: evidence of clearance/cure of HCV if most recent HCV RNA result as of the end of 2023 was negative, following a previous positive HCV viral test

Notes: 2021-2023 refers to time of positive HCV lab report. Percentages are based on the previous stage of the cascade.

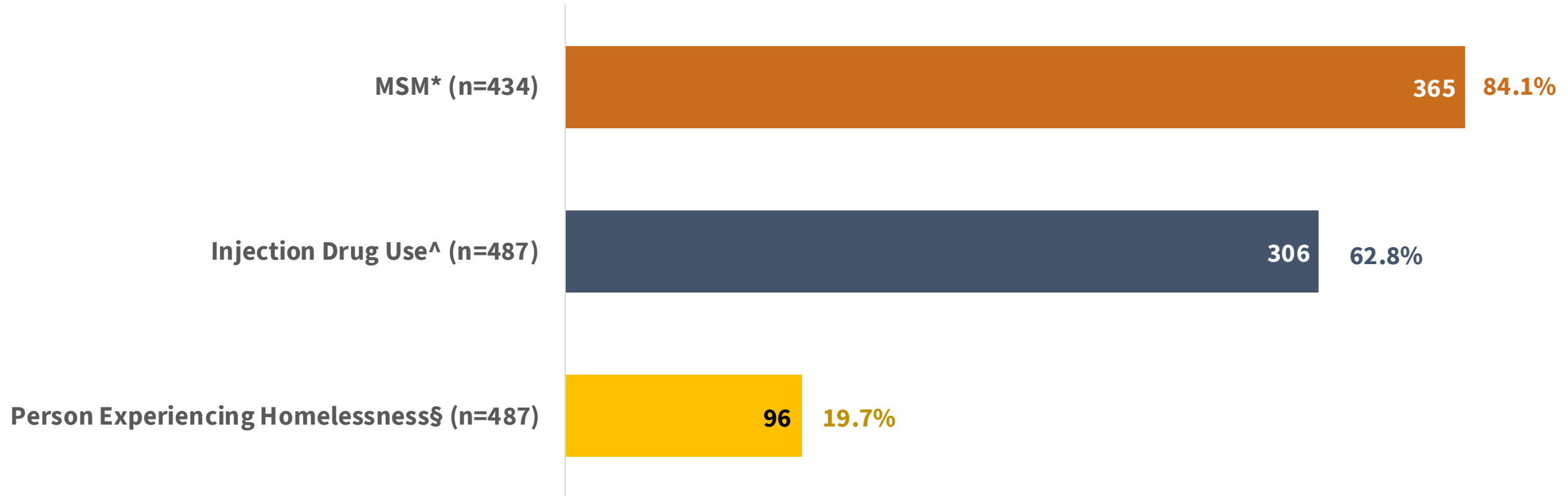
Insurance status for confirmed chronic HCV Cases with HIV coinfection, 2021-2023



21.6% of confirmed chronic HCV cases with HIV had **no insurance at the time of their HIV diagnosis.**

Notes: N=487. Primary source of health insurance at the time of HIV diagnosis. Data from HIV/AIDS case registry. 2021 - 2023 refers to time of positive HCV report.

Risk factors for confirmed chronic HCV cases with HIV coinfection, 2021-2023



Notes: Risk factor data are from the HIV/AIDS case registry. Risk factors are not mutually exclusive. 2021 - 2023 refers to time of positive HCV lab 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 is unknown for 24/434 (5.5%) of cases born male.

^ Injected drugs prior to HIV diagnosis. Injection drug use data is unknown for 24/487 (4.9%) of cases.

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

Among confirmed chronic hepatitis C cases with HIV, 84.1% of persons born male were **MSM** and 62.8% overall had a history of **injection drug use**.



Next Steps

Upcoming HCV surveillance efforts



Continue analyzing **negative HCV RNA** results to better understand and estimate treated, cured, or resolved HCV infections in San Francisco



Establish a SFDPH **perinatal HCV program** to better monitor the burden of perinatal HCV in San Francisco and to identify potential prevention opportunities.



Conduct **registry matches**, such as a Vital Records match, to improve data completeness & enhance surveillance data.



Continue collaborations with End Hep C SF, other community partners, SFDPH programs, CDPH, and CDC.

Want to know more?

Find the full report here:

<https://www.sf.gov/resource/2024/viral-hepatitis-reports>



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DISEASE PREVENTION & CONTROL