



State of HCV in Minnesota

Minnesota Department of Health
Hepatitis Surveillance System

Communicable Disease Reporting – Hepatitis

- Hepatitis A, B, C, D and E are all reportable by name to the Minnesota Department of Health (MDH).
- All reported cases may be contacted by the MDH Surveillance staff for epidemiological follow-up.

Minnesota Hepatitis Surveillance System

- Hepatitis B cases since 1987
- Hepatitis C cases since 1998
- Passive data collection

Viral Hepatitis Overview

Introduction

- Data in this presentation are current through 2022
- Definitions:
 - Acute case:
 - Infected within the last twelve month – negative test in twelve months before diagnosis
 - ALT \geq 200, T. bili \geq 3.0, OR jaundice
 - Chronic case:
 - Infected for over twelve months
 - Asymptomatic or symptomatic
 - Resolved cases:
 - No evidence of current infection
 - Evidence of past infection

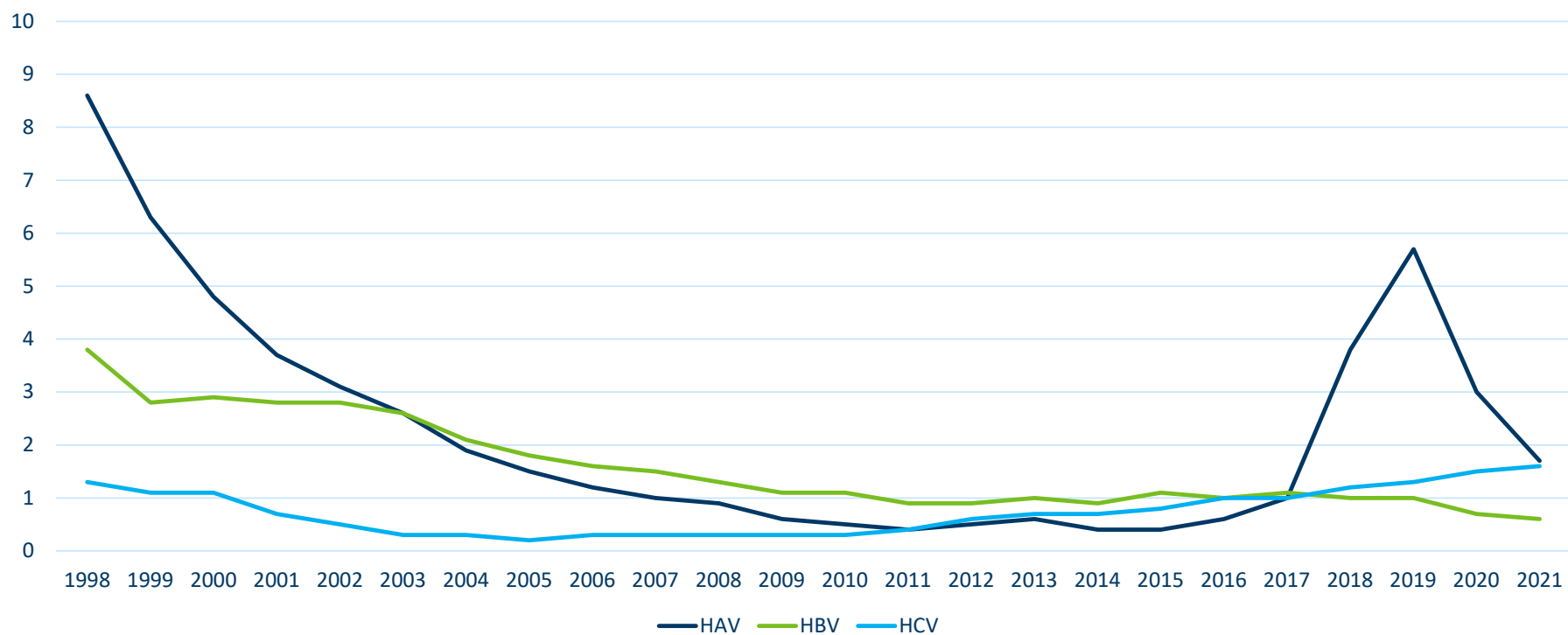
Data limitations

- The slides rely on data from HCV and HBV cases diagnosed through 2022 and reported to the Minnesota Department of Health (MDH) Hepatitis Surveillance System.
- Some limitations of surveillance data:
 - Data do not include hepatitis-infected persons who have not been tested
 - Data do not include persons whose positive test results have not been reported to the MDH
- Persons are assumed to be alive unless the MDH has knowledge of their death. Most recent match with Minnesota death records was in 2016.
- Persons whose most recently reported state of residence was Minnesota are assumed to be currently residing in Minnesota unless the MDH has knowledge of their relocation.

Acute Viral Hepatitis

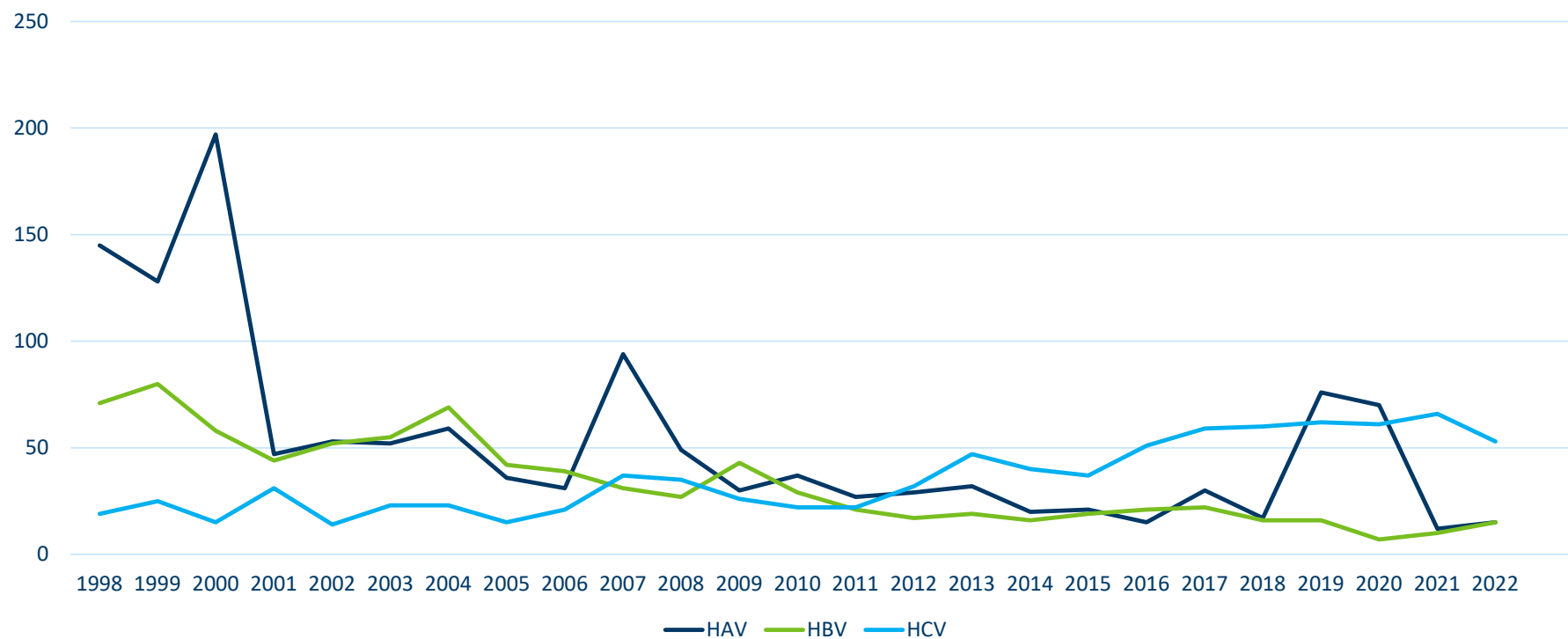
- Acute case:
 - Infected within the last twelve months - negative test 12 months before diagnosis
 - ALT ≥ 200 , T. bili ≥ 3.0 , OR jaundice

Reported rate per 100,000 population of acute viral hepatitis United States, 1998-2020



Data Source: Viral Hepatitis Statistics & Surveillance at www.cdc.gov/hepatitis/Statistics/

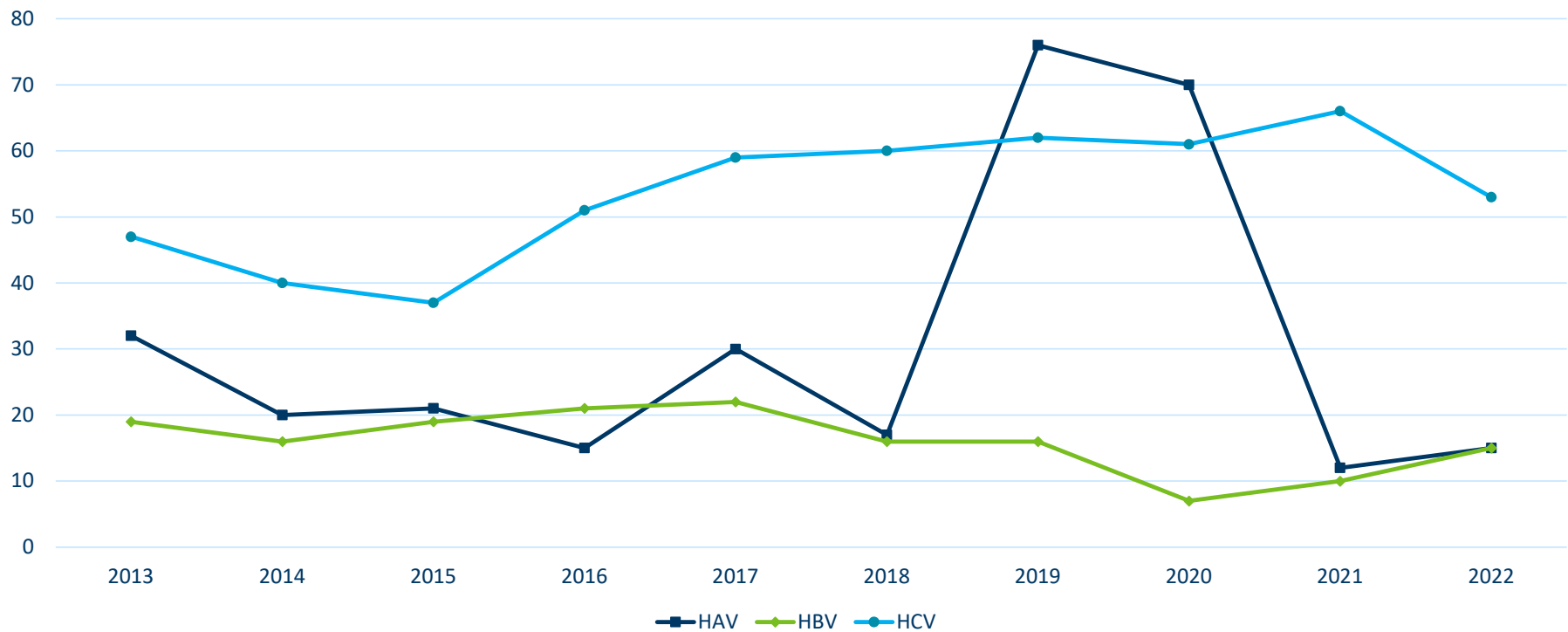
Number of Acute* Cases per year Minnesota, 1998-2022



Data Source: MN Viral Hepatitis Surveillance System

*Acute cases include seroconverters for all years for HBV and HCV

Number of Acute* Cases per year Minnesota, 2013-2022



Data Source: MN Viral Hepatitis Surveillance System

*Acute cases include seroconverters for all years for HBV and HCV

Chronic Viral Hepatitis

Reported Number of Persons Living with HCV in MN

- As of December 31, 2022, 32,543* persons are assumed alive and living in MN with HCV.

Note: Includes all acute, chronic, and probable cases.

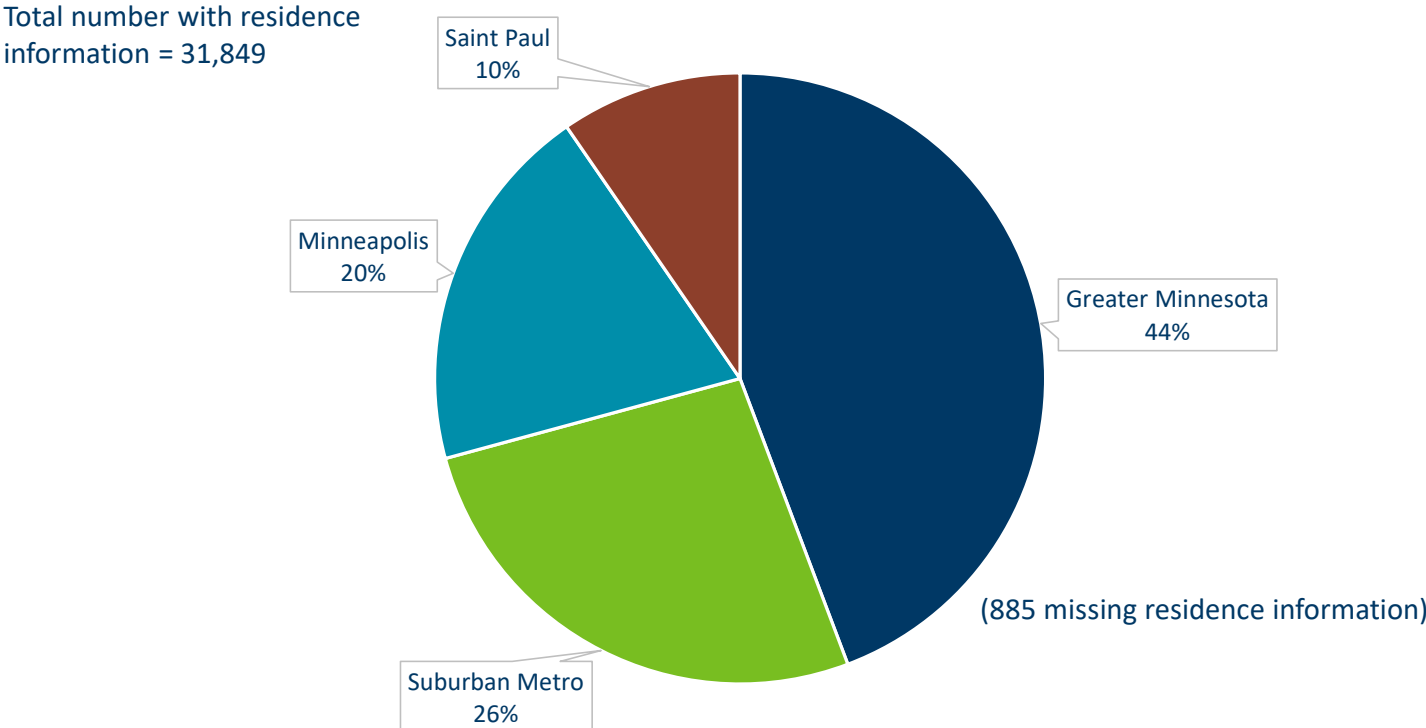
*Includes persons with unknown city of residence

Data Source: MN Viral Hepatitis Surveillance System

Changes in Case Counting, 2016

- Removed resolved infections from case counts
- Completed match with death registry for 1997 through 2016

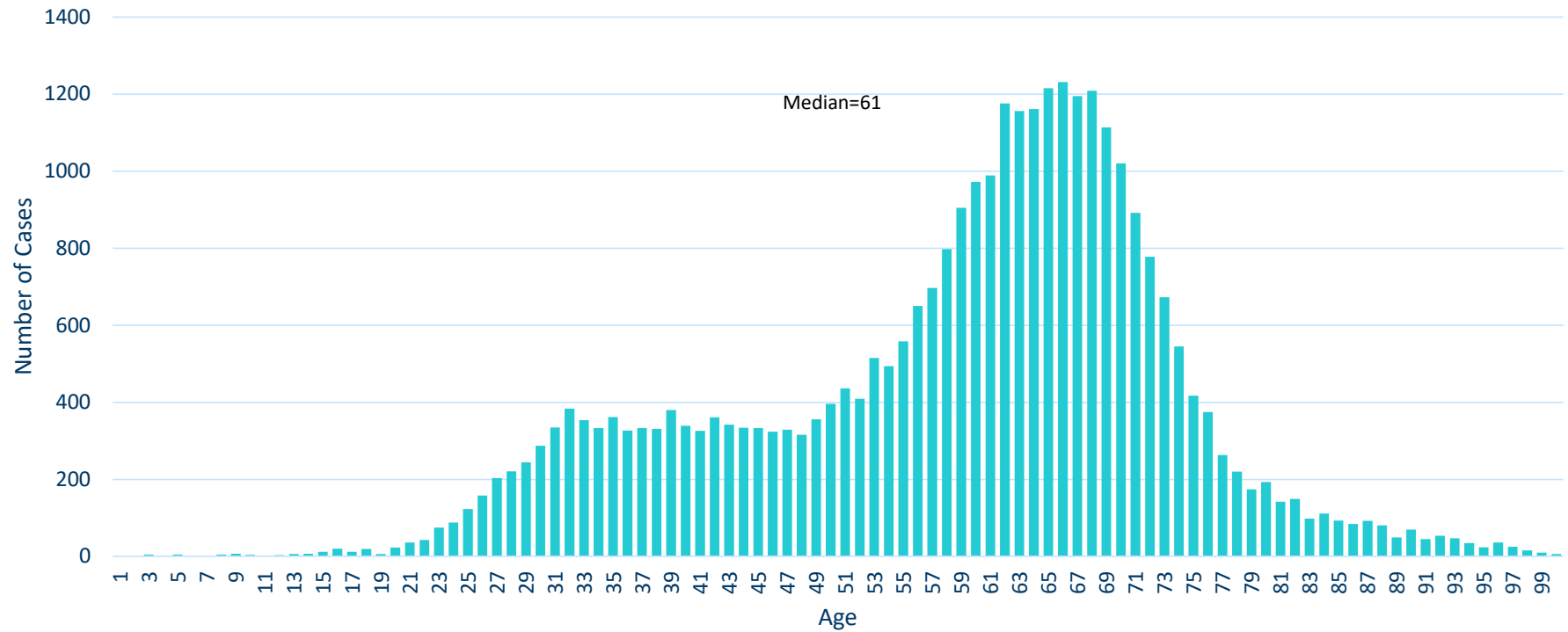
Persons Living with HCV in MN by Current Residence, 2022



Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties including those in Hennepin County or Ramsey County with unknown city. Greater MN = All other Minnesota counties, outside the seven-county metro area.

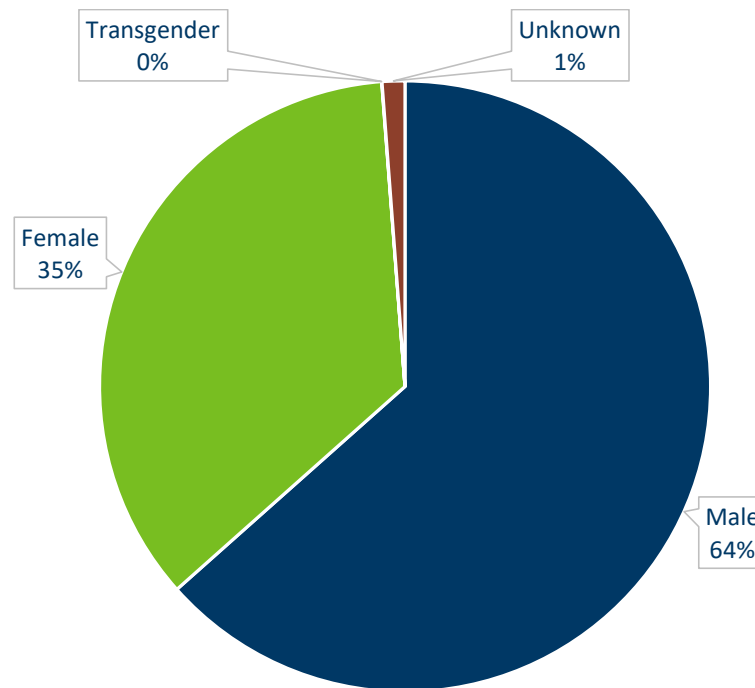
Data Source: MN Viral Hepatitis Surveillance System

Persons Living with HCV in MN by Age, 2022



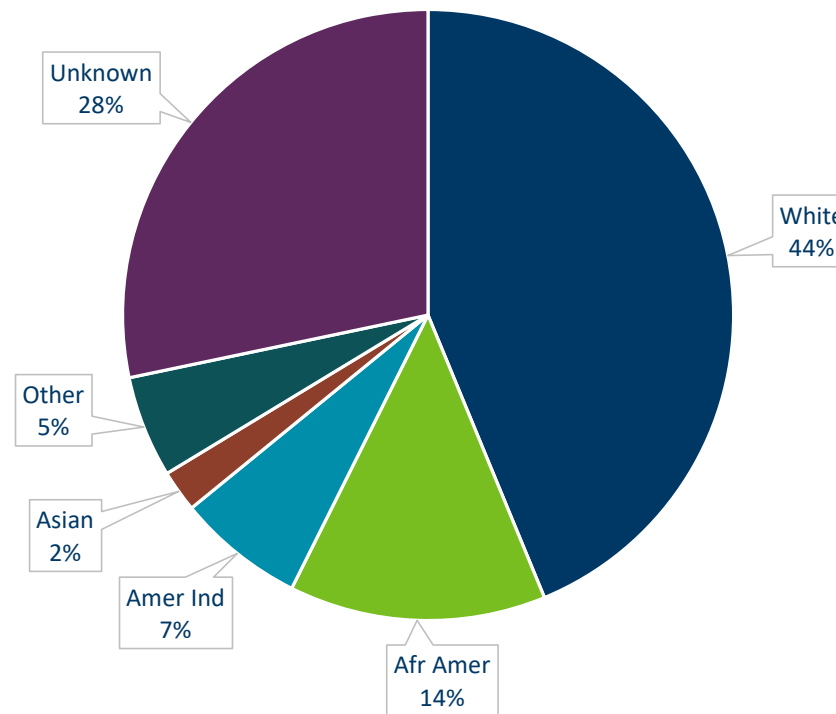
Data Source: MN Viral Hepatitis Surveillance System

Persons Living with HCV in MN by Gender*, 2022



Data Source: MN Viral Hepatitis Surveillance System

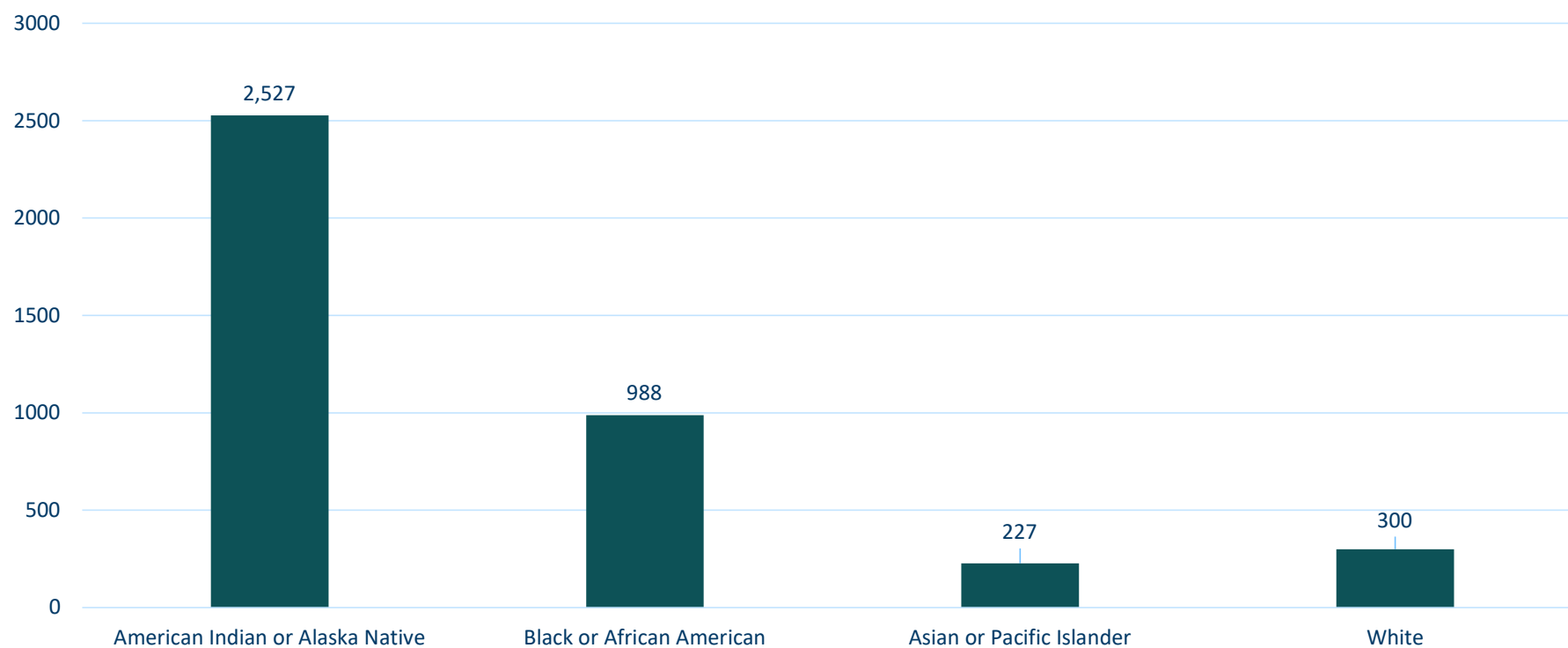
Persons Living with HCV in Minnesota by Race, 2022



Afr Amer = African American /Black Asian=Asian or Pacific Islander
Amer Ind = American Indian
Other = Multi-racial persons or persons with other race

Data Source: MN Viral Hepatitis Surveillance System

Persons Living with HCV in Minnesota by Race rates (per 100,000 persons*), 2022



Data Source: MN Viral Hepatitis Surveillance System

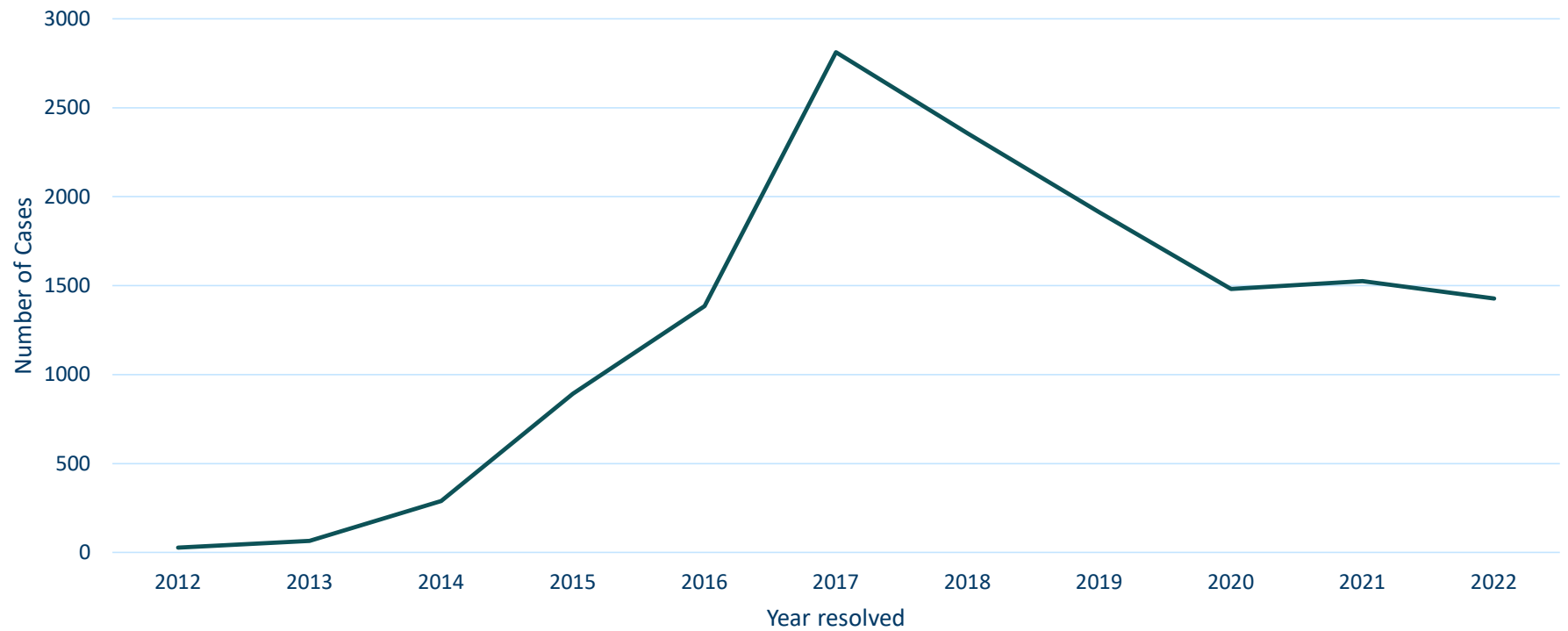
*Rates calculated using 2020 U.S. Census ACS data

Excludes persons with multiple races or unknown race, n=10,961

Resolved HCV Infection

- Included in overall HCV case counts in past years
- Defined as:
 - A positive HCV RNA test followed by a negative HCV RNA test
- Does NOT include:
 - Anti-HCV positive with a negative HCV RNA with NO past positive HCV RNA

Resolved Hepatitis C, 2022



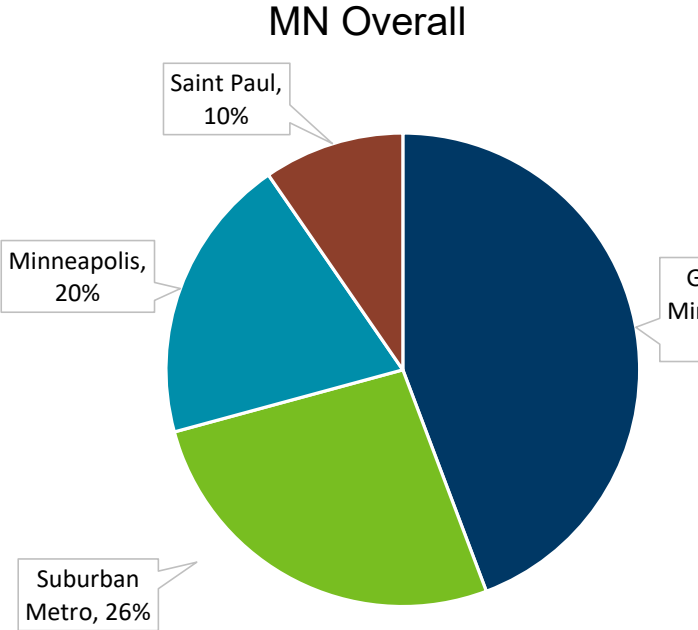
Reported number of resolved infections in MN

As of December 31, 2022, there were 13,386* persons in the MN hepatitis database with HCV infection that resolved between 2016-2022.

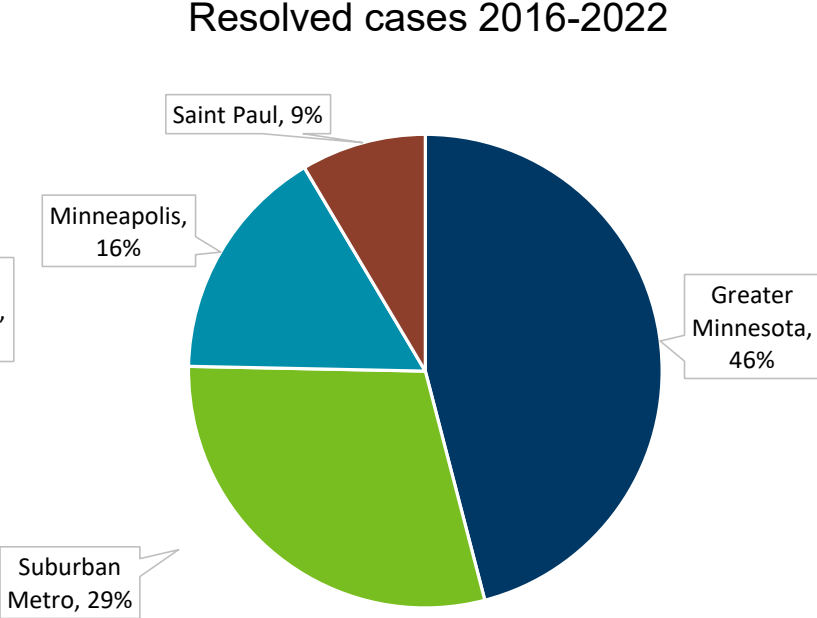
*Includes persons with unknown city of residence

Data Source: MN Viral Hepatitis Surveillance System

Resolved HCV cases in MN by Current Residence, 2022



Total number with residence information= 31,849

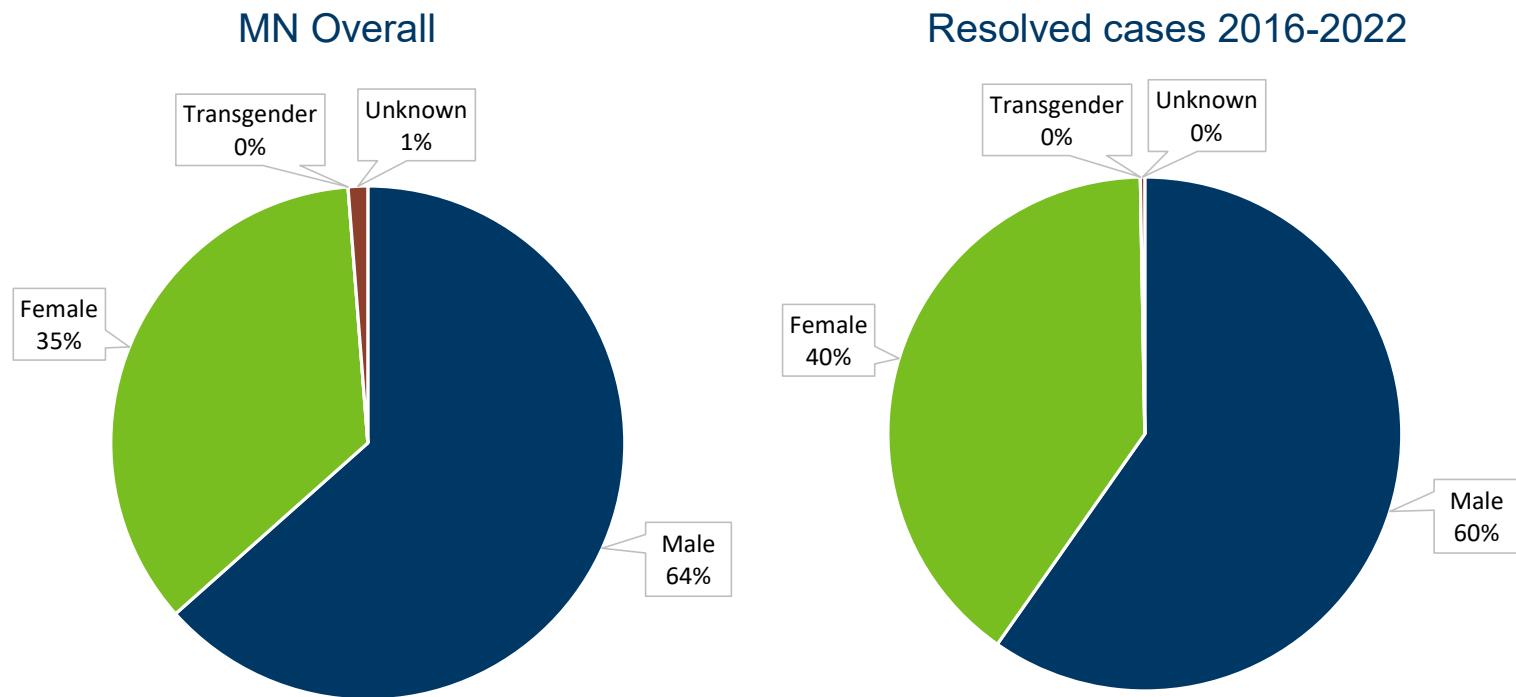


Total number with residence information= 12,792

Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties including those in Hennepin County or Ramsey County with unknown city. Greater MN = All other Minnesota counties, outside the seven-county metro area.

Data Source: MN Viral Hepatitis Surveillance System

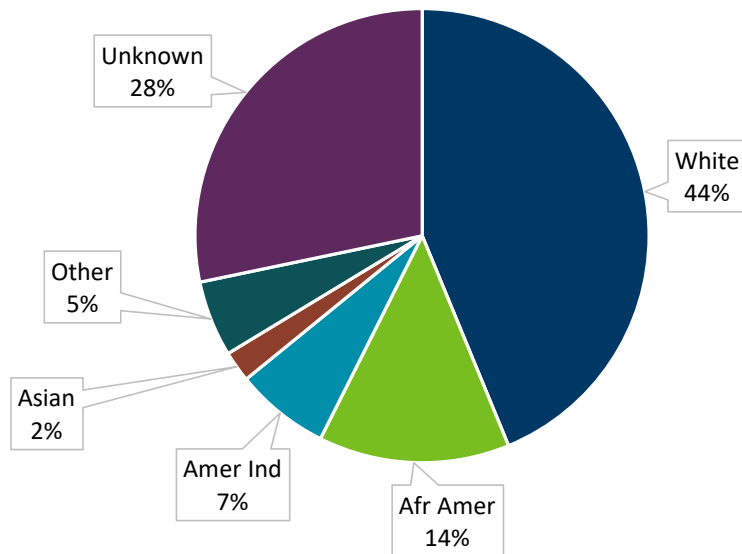
Resolved HCV cases in MN by Gender*, 2022



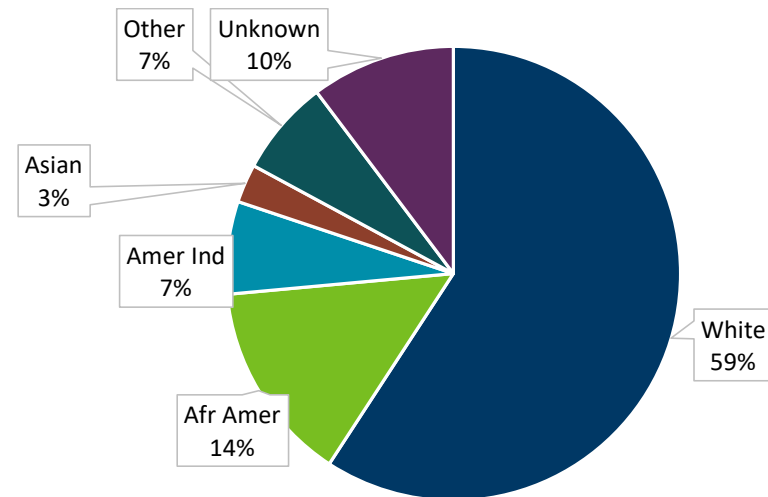
*Includes anonymous methadone patients

Resolved HCV cases in MN by Race, 2022

MN Overall

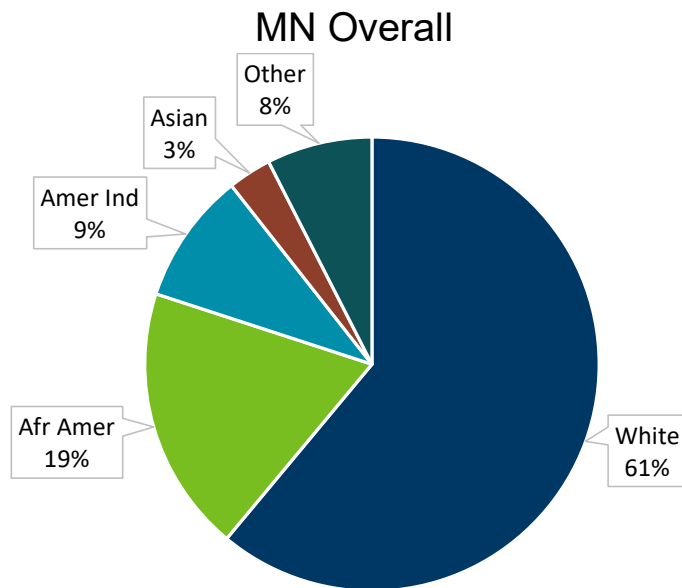


Resolved cases 2016-2022

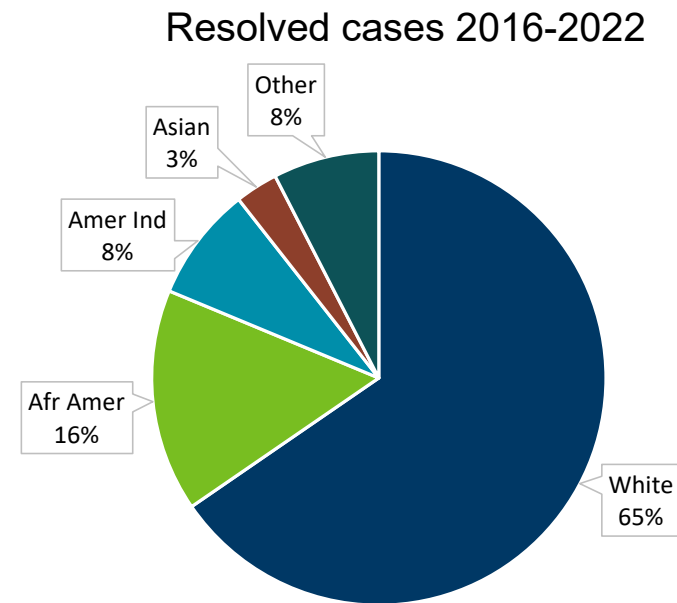


Afr Amer = African American /Black Asian=Asian or Pacific Islander
Amer Ind = American Indian
Other = Multi-racial persons or persons with other race

Resolved HCV cases in MN by Race, 2022



Total number with known race = 23,336

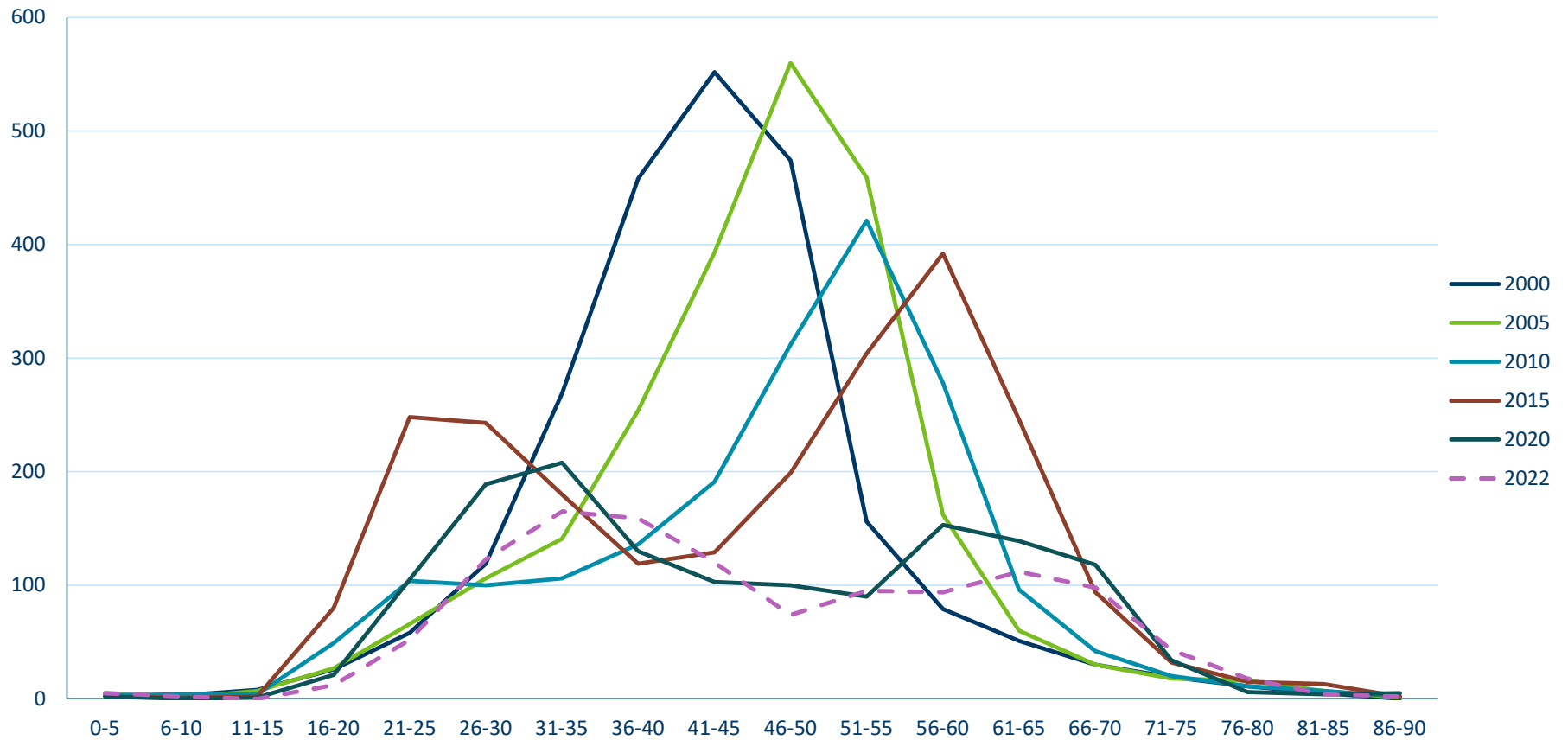


Total number with known race = 11,558

Afr Amer = African American /Black Asian=Asian or Pacific Islander
Amer Ind = American Indian
Other = Multi-racial persons or persons with other race

Hepatitis C in Populations of Interest

New Reports of HCV in Minnesota by Age Group, 2022



Hepatitis C in Persons Under Age 30

Reported Number of Persons <30 Living with HCV in MN

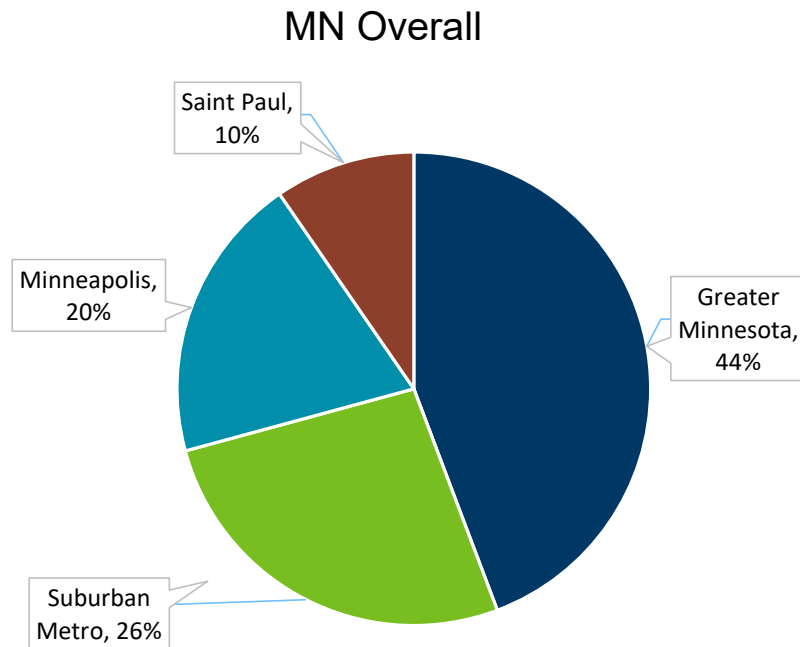
As of December 31, 2022, 1,802* persons under the age of 30 are assumed alive and living in MN with HCV.

Note: Includes all acute, chronic, and probable chronic cases.

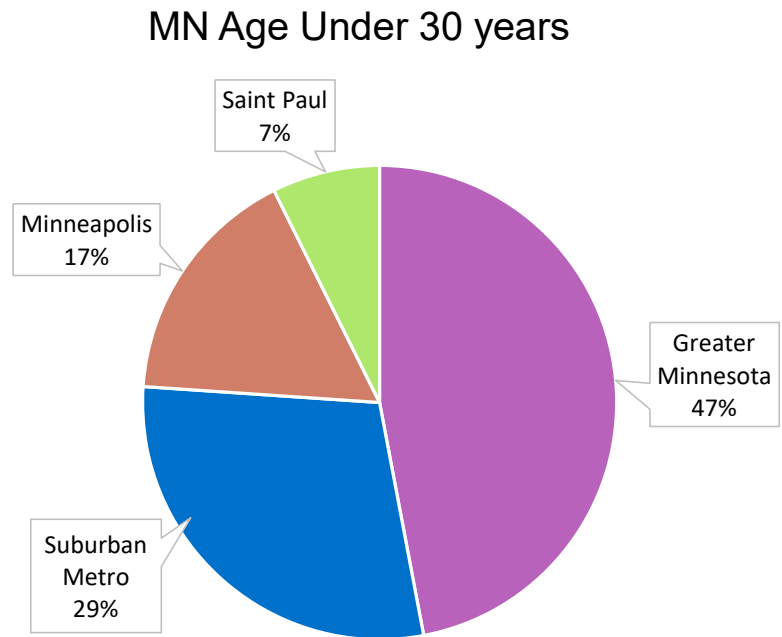
*Includes persons with unknown city of residence

Data Source: MN Viral Hepatitis Surveillance System

Persons <30 Living with HCV in MN by Current Residence, 2022



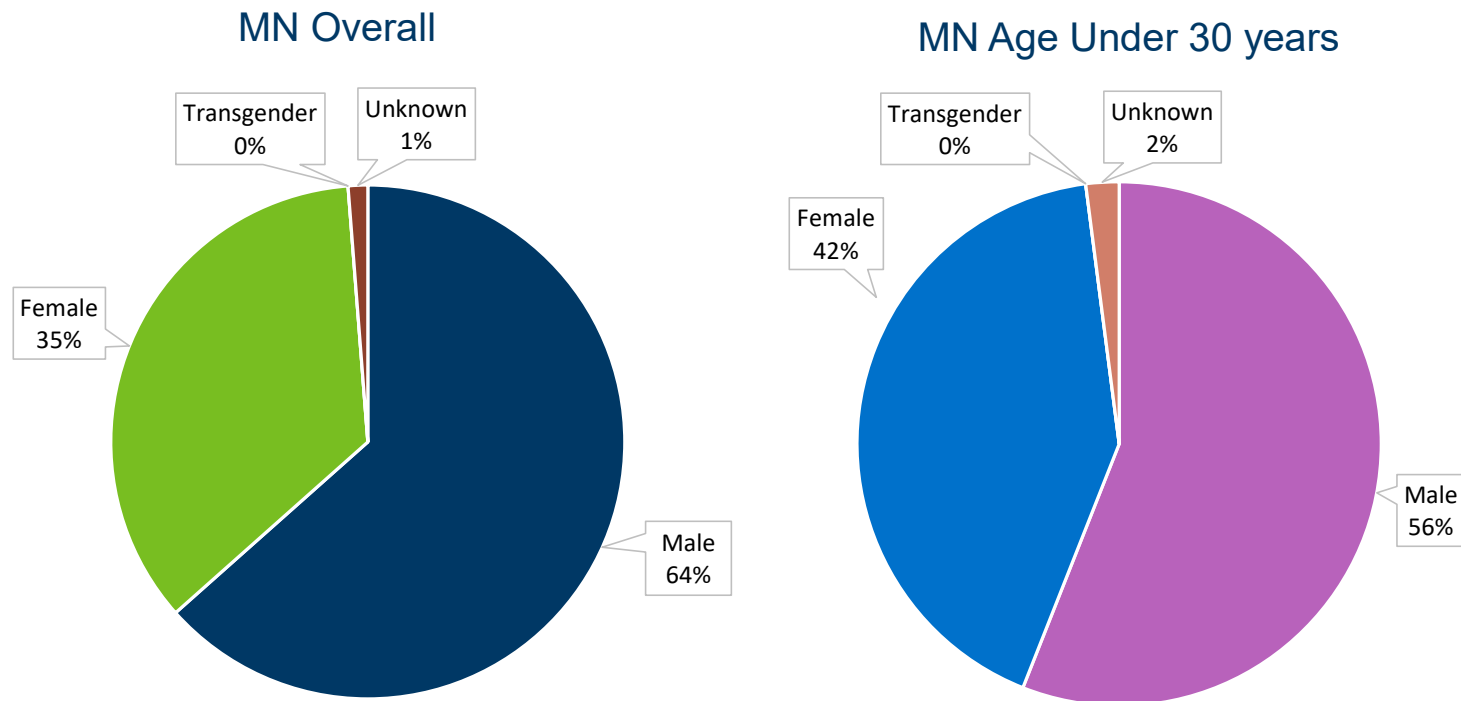
Total number with residence information= 31,849



Total number with residence information= 1,727

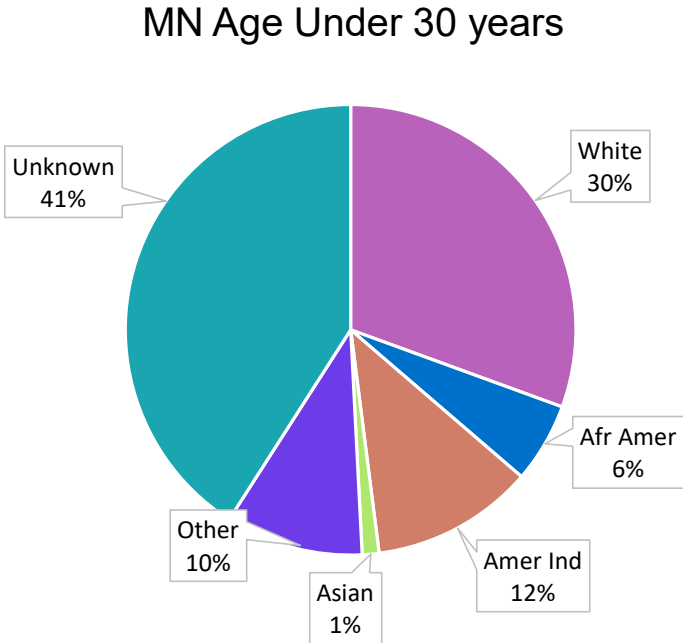
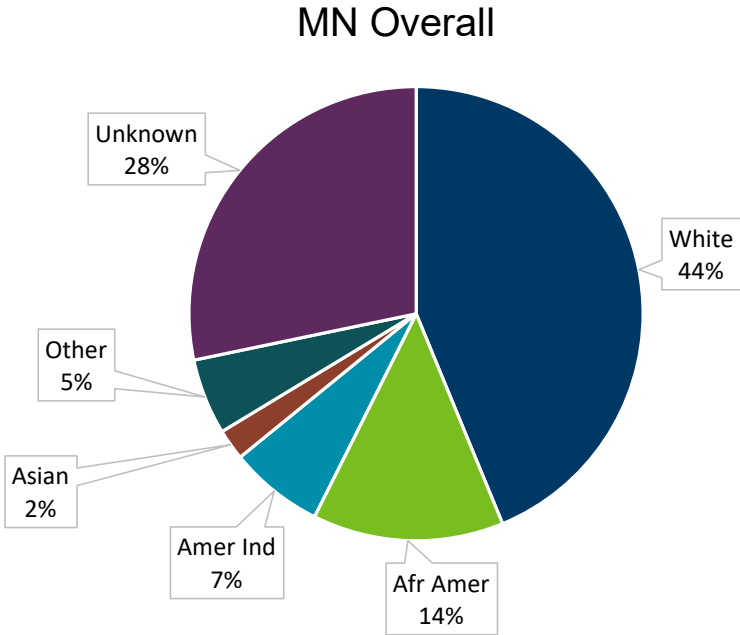
Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties including those in Hennepin County or Ramsey County with unknown city. Greater MN = All other Minnesota counties, outside the seven-county metro area.

Persons <30 Living with HCV in MN by Gender*, 2022



*Includes anonymous methadone patients

Persons <30 Living with HCV in MN by Race, 2022



Afr Amer = African American /Black Asian=Asian or Pacific Islander
Amer Ind = American Indian
Other = Multi-racial persons or persons with other race

Data Source: MN Viral Hepatitis Surveillance System

Hepatitis C in Native Americans

Reported Number of Native Americans Living with HCV in MN

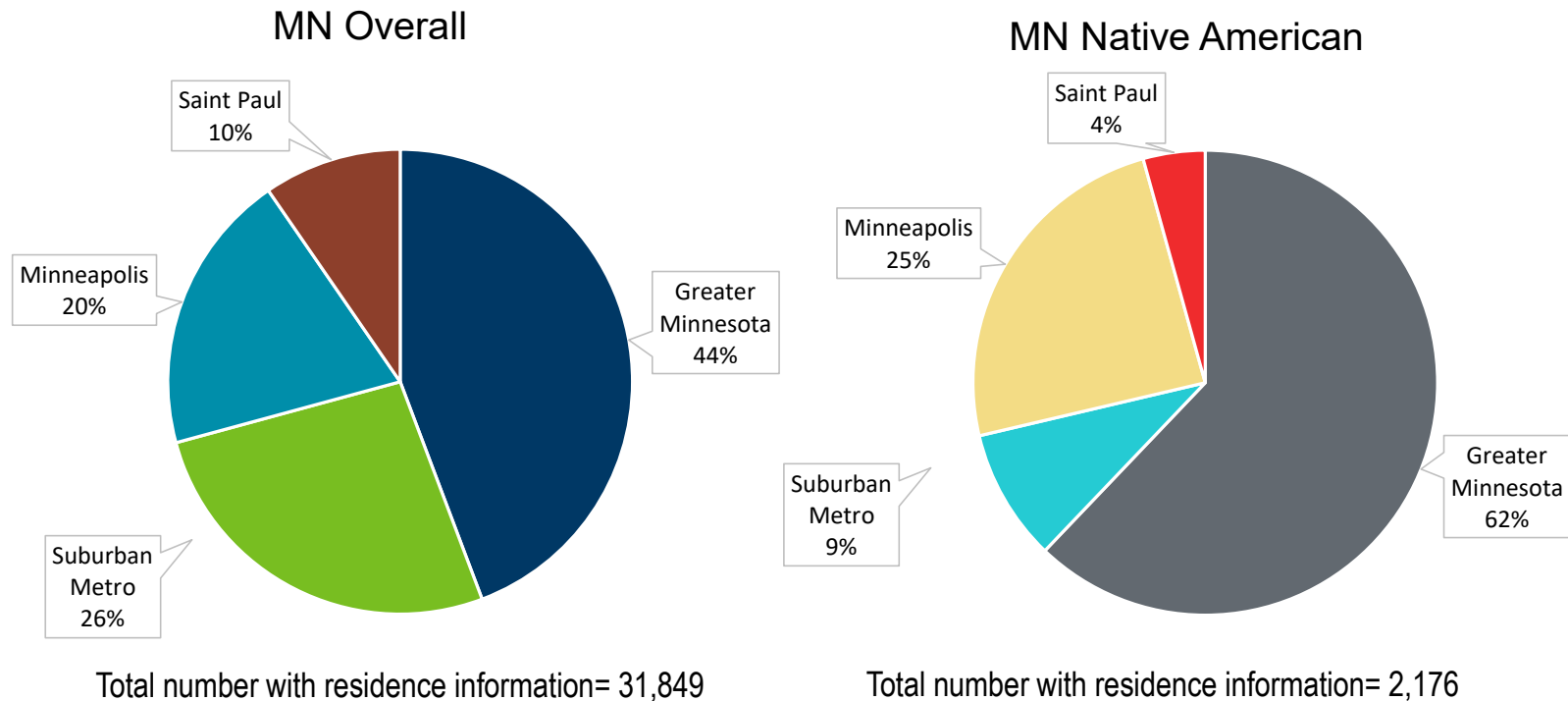
As of December 31, 2022, 2,190* persons who identify as Native American are assumed alive and living in MN with HCV

Note: Includes all acute, chronic, and probable chronic cases.

*Includes persons with unknown city of residence

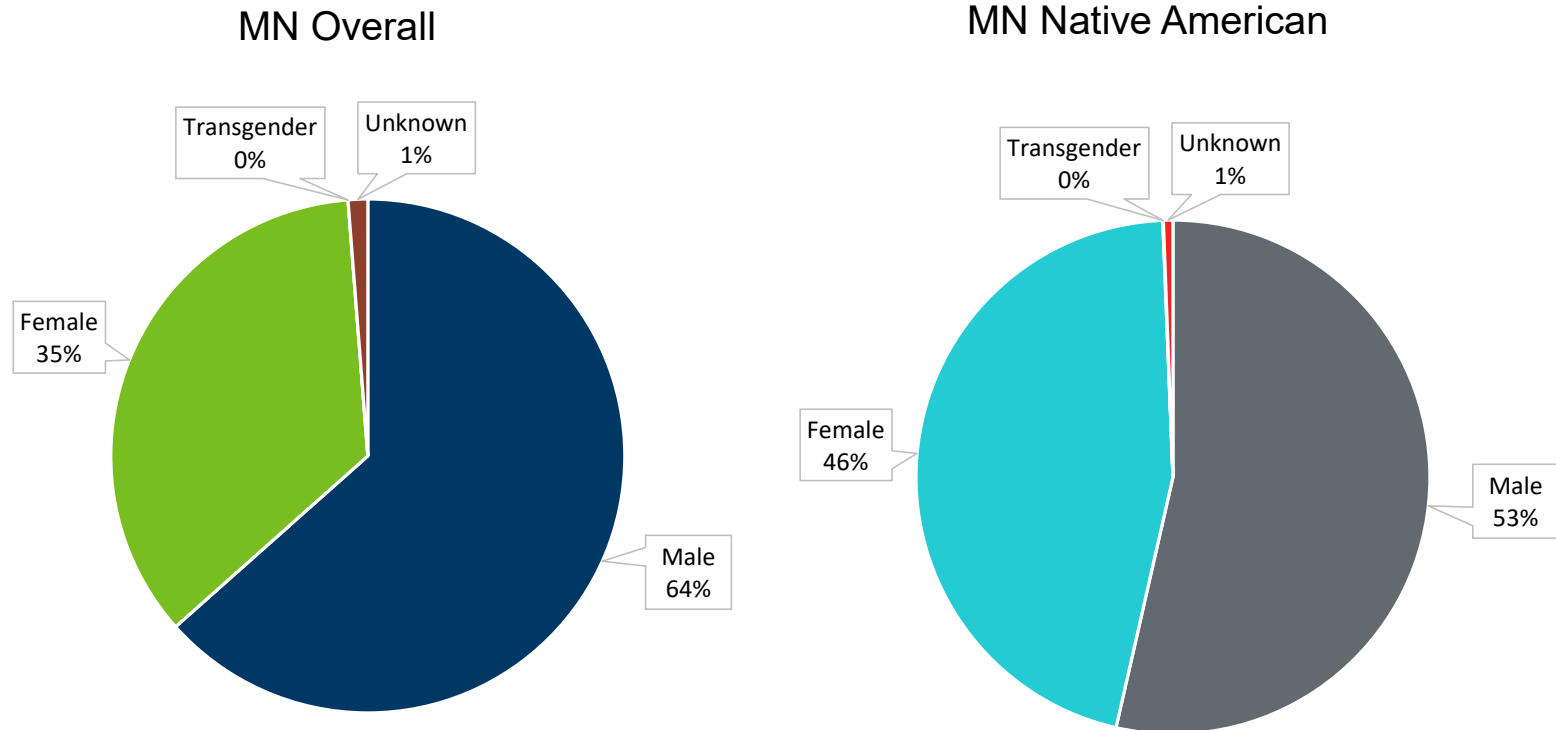
Data Source: MN Viral Hepatitis Surveillance System

Native American Persons Living with HCV in MN by Current Residence, 2022



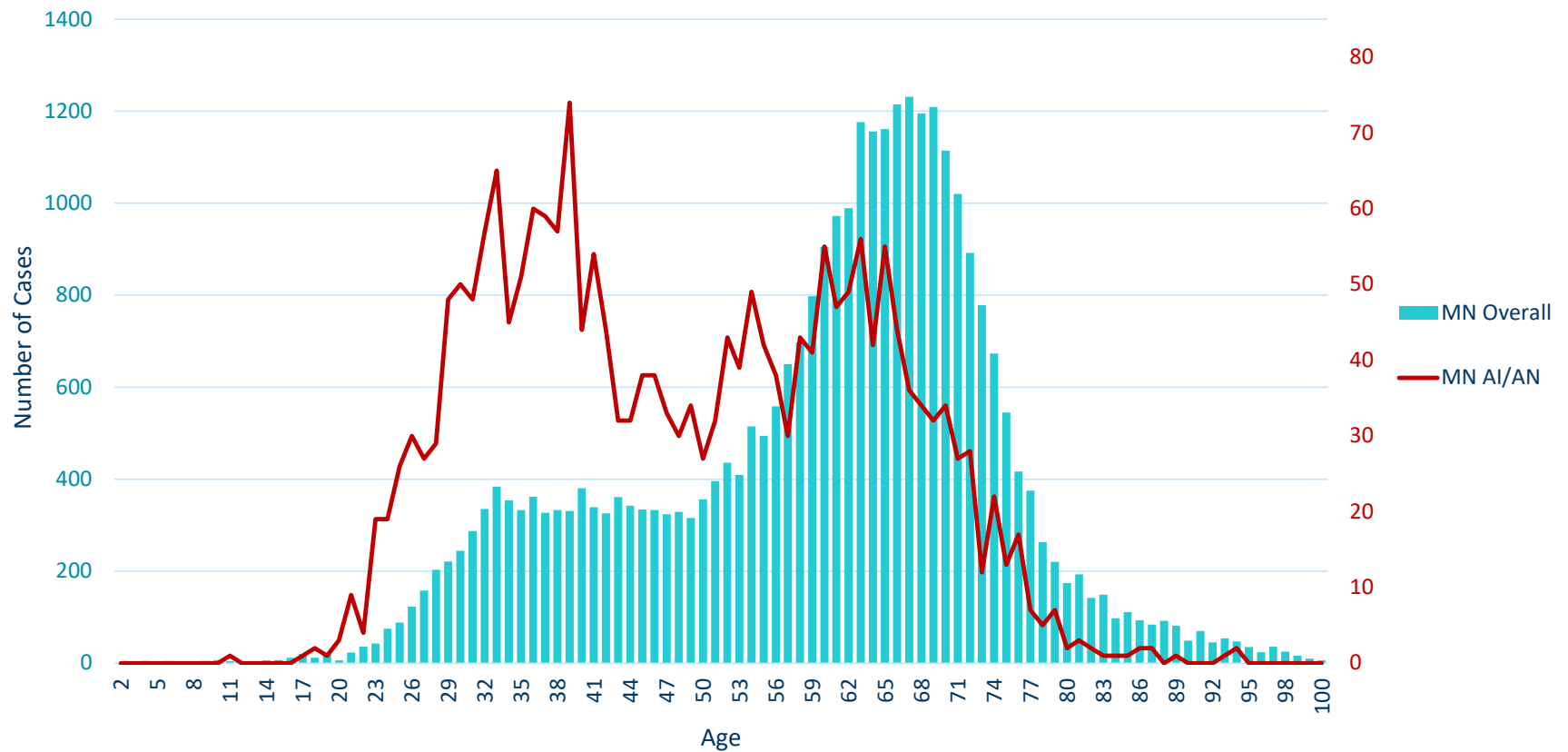
Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (except Minneapolis), Ramsey (except St. Paul), Scott, and Washington counties including those in Hennepin County or Ramsey County with unknown city. Greater MN = All other Minnesota counties, outside the seven-county metro area.

Native American Persons Living with HCV in MN by Gender*, 2022



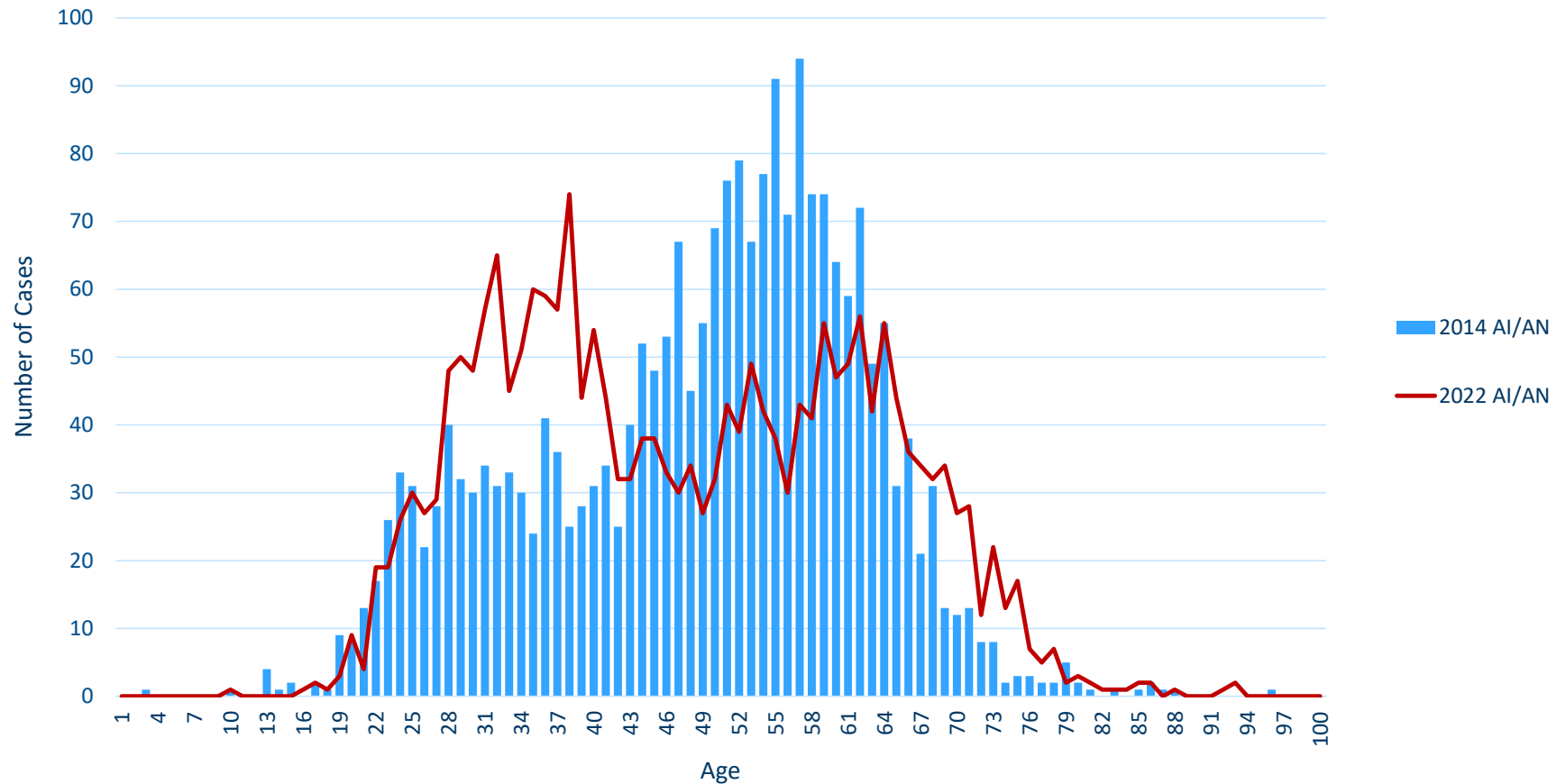
*Includes anonymous methadone patients

Native American Persons Living with HCV in MN by Age, 2022



Data Source: MN Viral Hepatitis Surveillance System

Native American Persons Living with HCV in MN by Age, 2014 & 2022



Data Source: MN Viral Hepatitis Surveillance System



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Thank you!

Special thanks to the Hepatitis Unit at MDH!

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