



Profile of Viral Hepatitis Epidemiology in Northern New England

October 2023

Presentation Overview

- Viral Hepatitis Case Reporting
- Population Demographic Characteristics
- Hepatitis A
- Acute Hepatitis B
- Chronic Hepatitis B
- Acute Hepatitis C
- Chronic Hepatitis C
- Questions

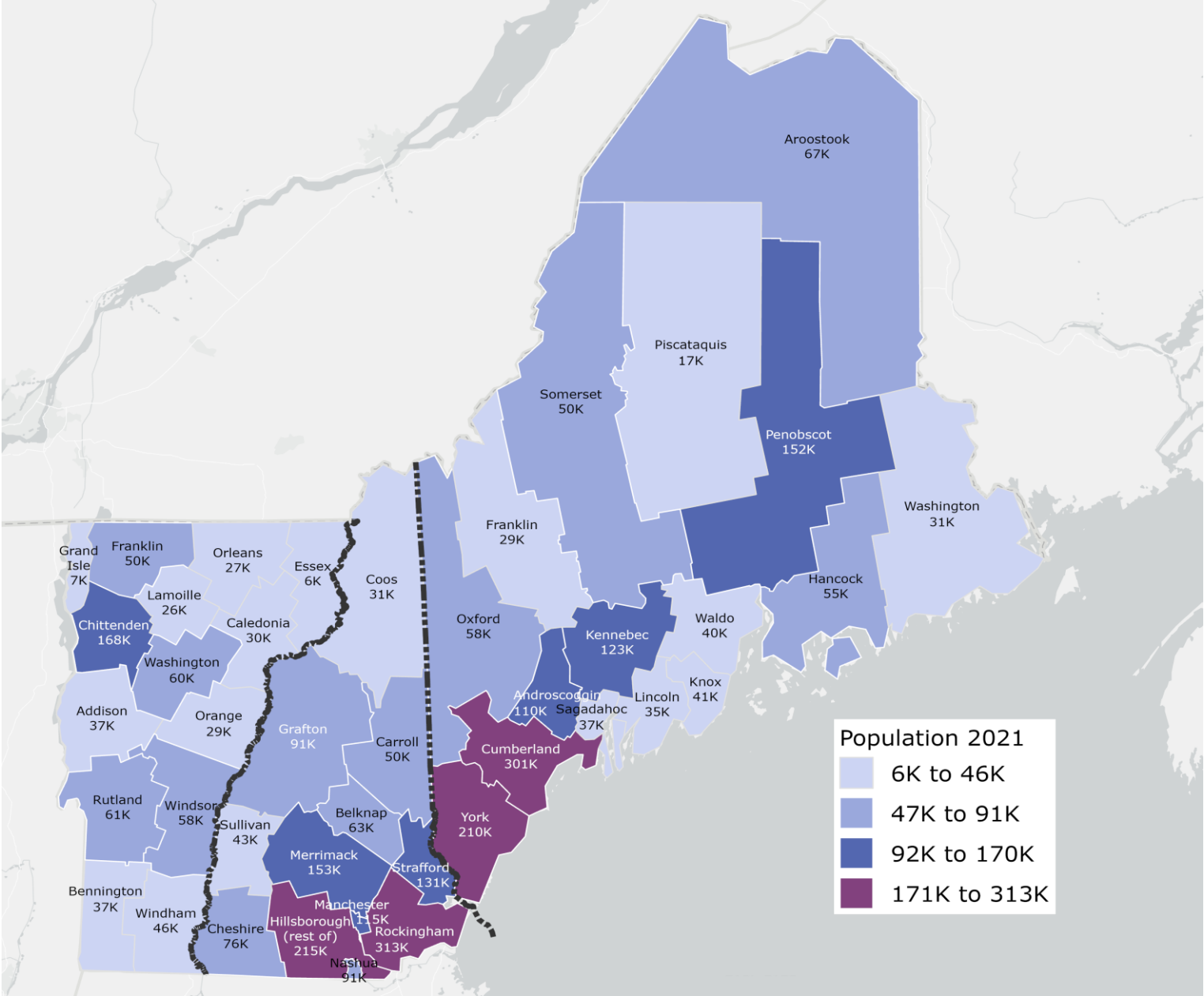


Viral Hepatitis Case Reporting

	Viral Hepatitis Reporting Requirements			
	Hepatitis A	Hepatitis B	Hepatitis C	Negative hepatitis C labs reportable?
Maine	All positive lab results	All positive lab results	All positive lab results	No, but many received by electronic lab reporting
New Hampshire	All positive lab results	Positive lab results for pregnant persons, new provider diagnosis	Only new provider diagnoses	No
Vermont	All positive lab results	All positive lab results	All positive lab results	No



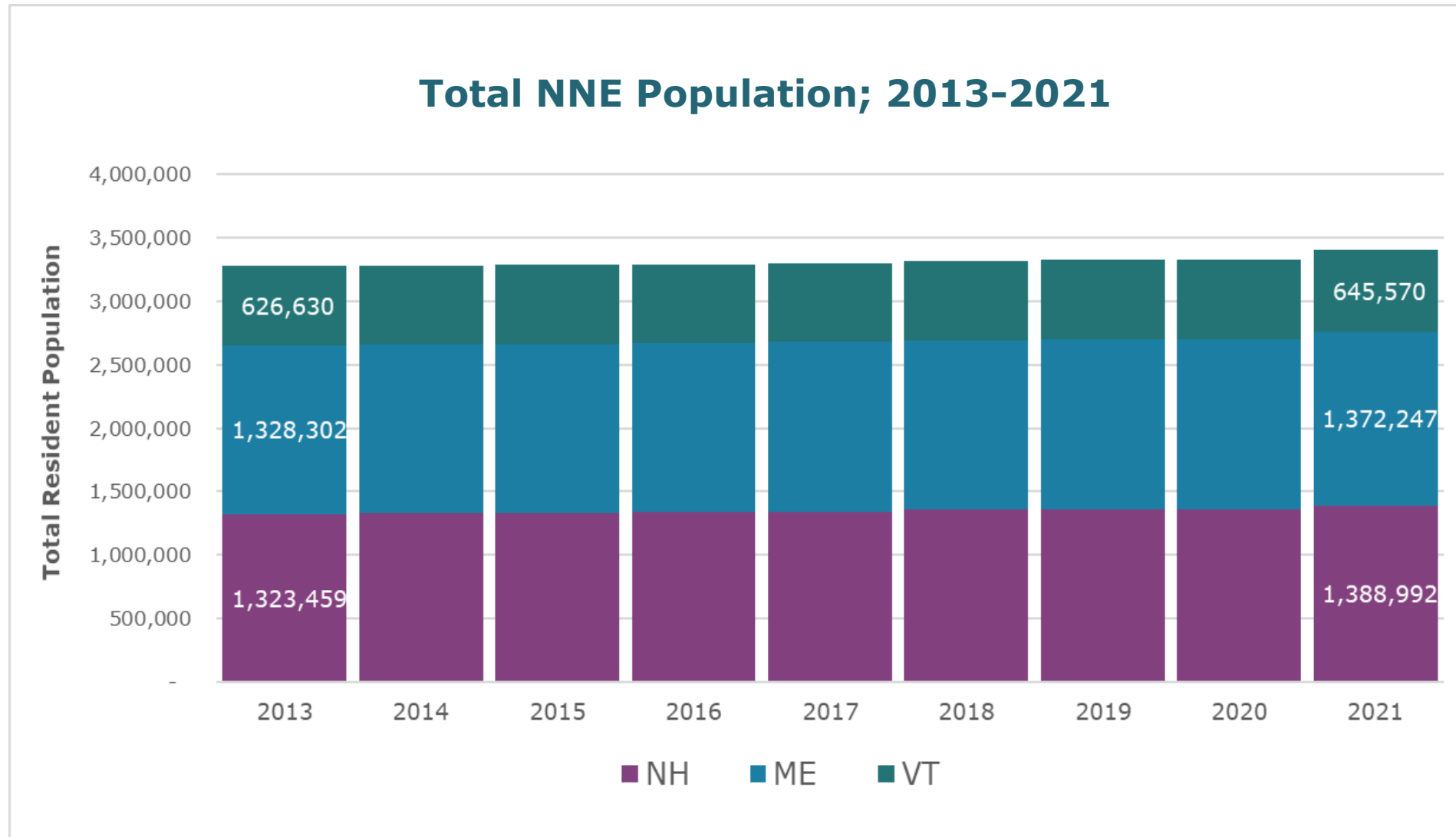
Northern New England (NNE) Population Distribution by County



Data Source: United States Census Bureau, American Community Survey, 5-year estimates, 2017-2021



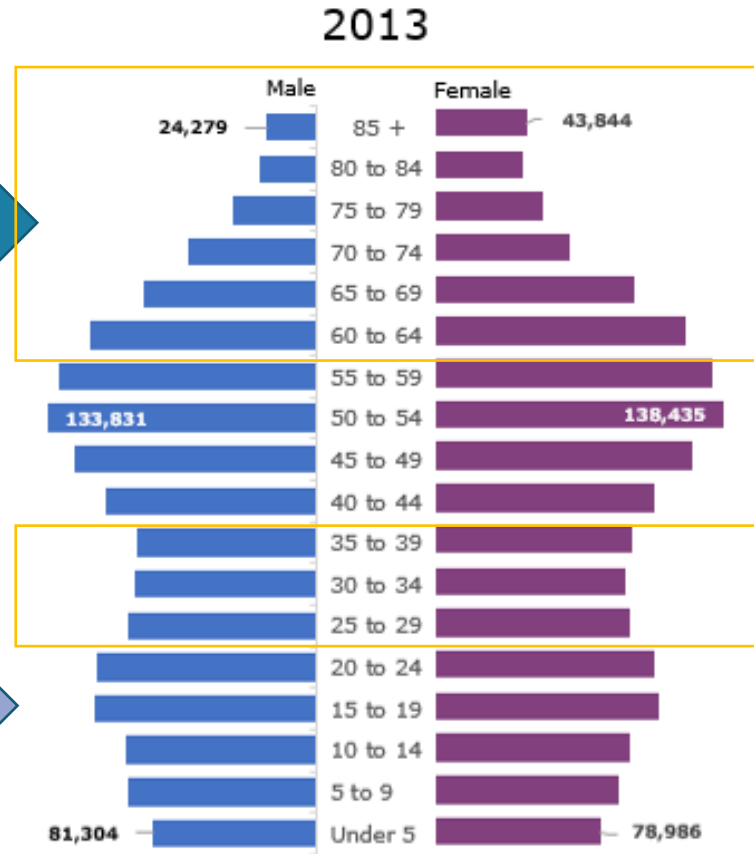
NNE states have a growing population + ~4%



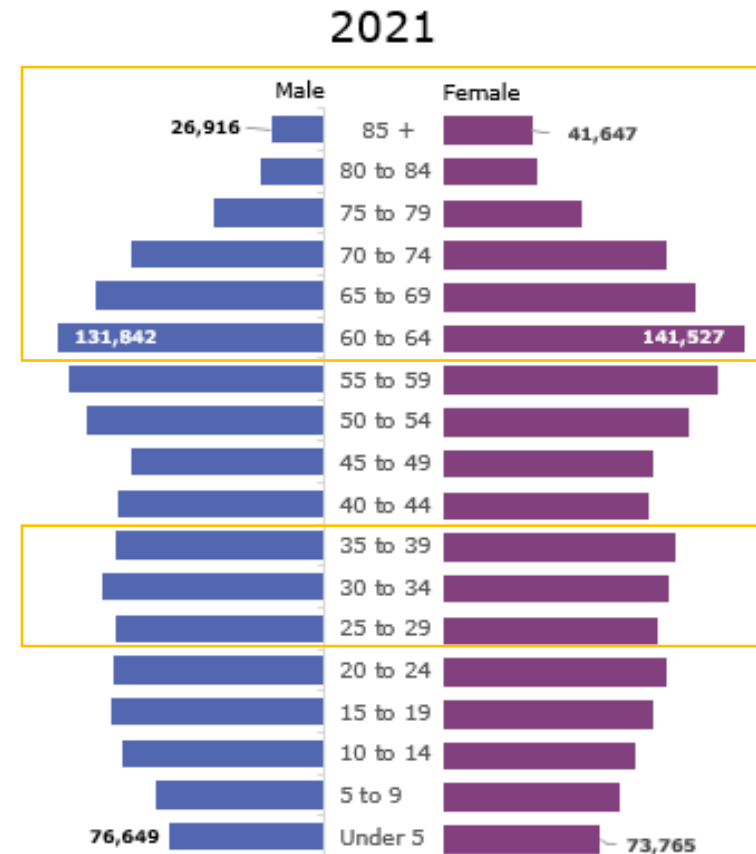
Two age cohorts are increasing: 25-39 and 60+

**60+ Population
(Increasing)**

**Under-20
population
(Decreasing)**



Population Distribution by Age Group

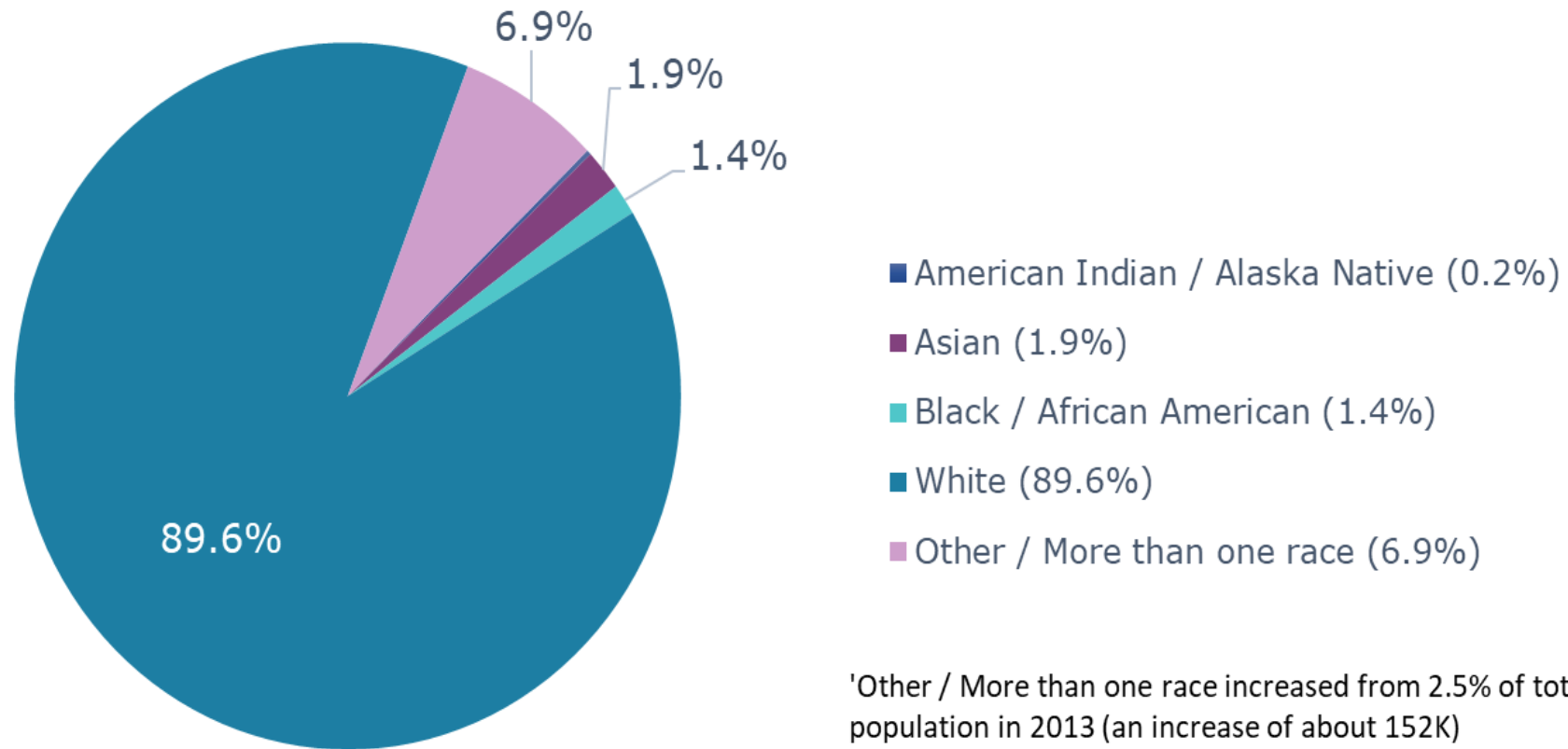


Population Distribution by Age Group



The population of NNE states is largely White

Northern New England (NNE) Population Distribution by Race; 2021

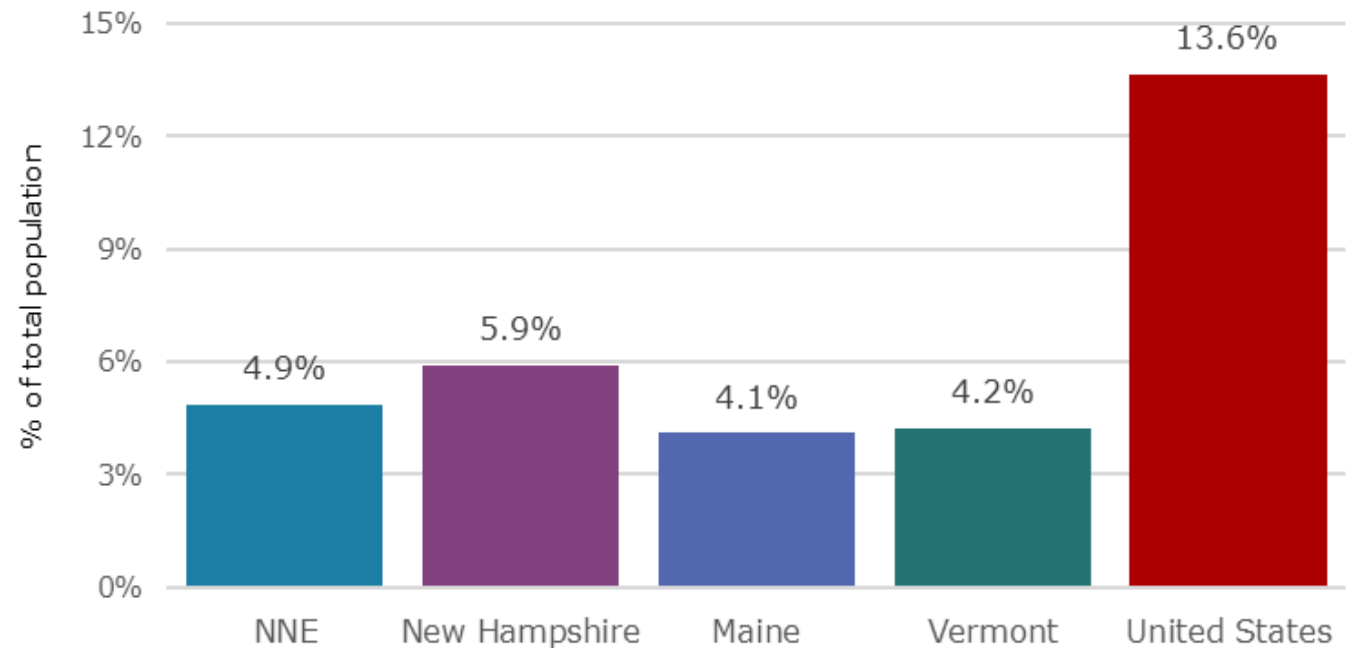


The NNE population is becoming slightly more diverse

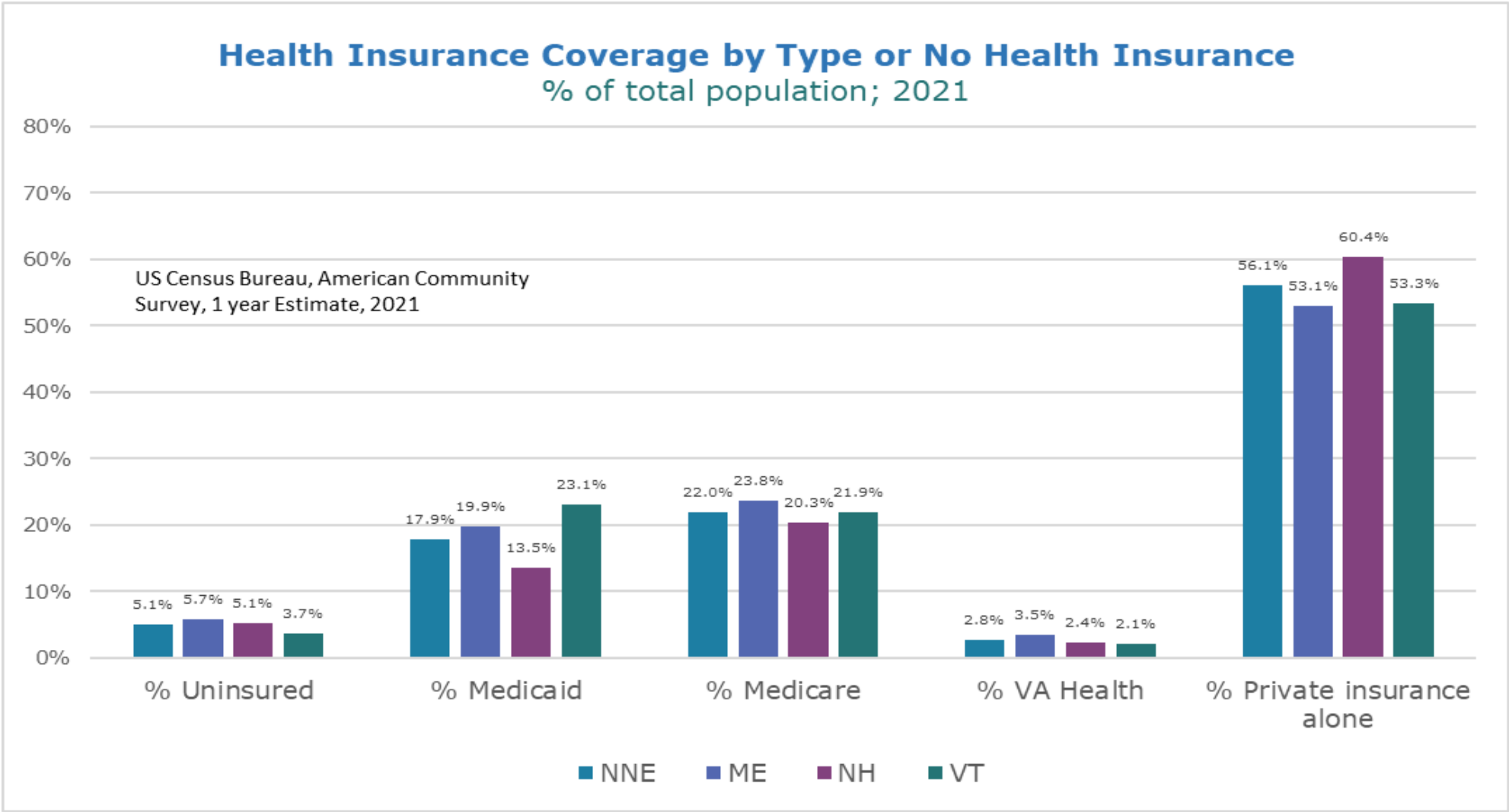
Population of NNE States that identify as Hispanic/ Latino 2013-2021



Born Outside the United States or U.S. Territory
% total population; 2021



The majority of residents have private health insurance coverage, ~5% are uninsured



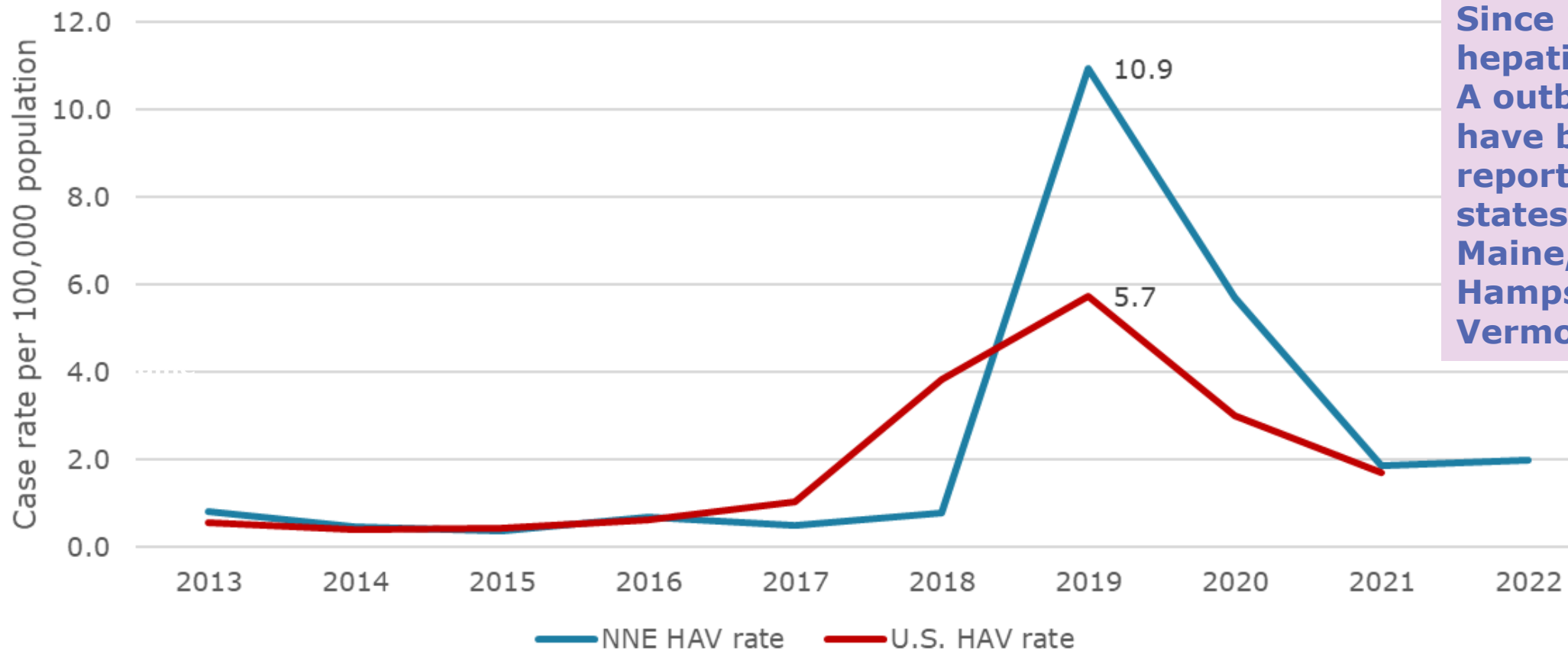
Data Source: United States Census Bureau, American Community Survey, 1-year Estimates, 2021

Hepatitis A





Rates of reported cases of hepatitis A virus infection Northern New England and United States; per 100,000 population



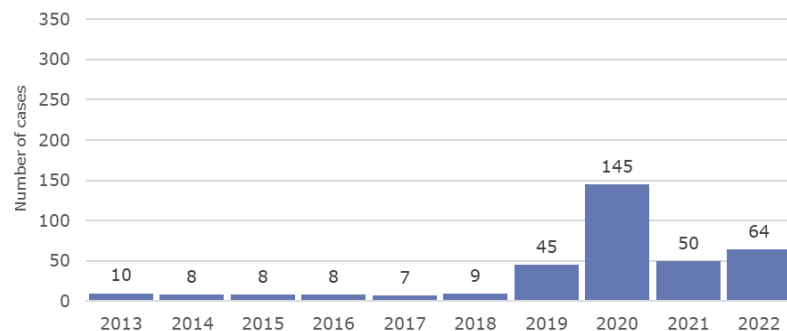
Since 2016, hepatitis A outbreaks have been reported in 37 states including Maine, New Hampshire, and Vermont



Numbers of reported cases of hepatitis A virus Northern New England, 2013 - 2022

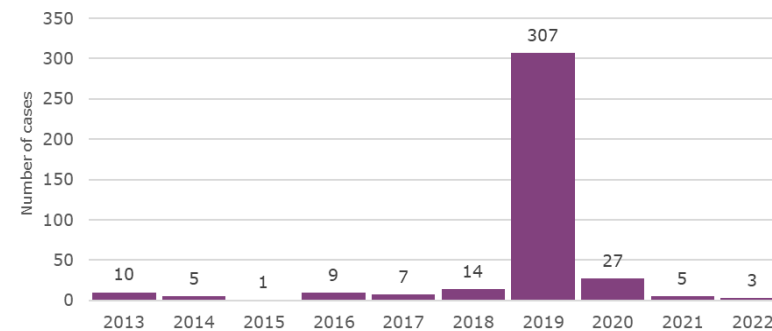
Maine

Reported cases of hepatitis A virus infection
Maine; 2013-2022



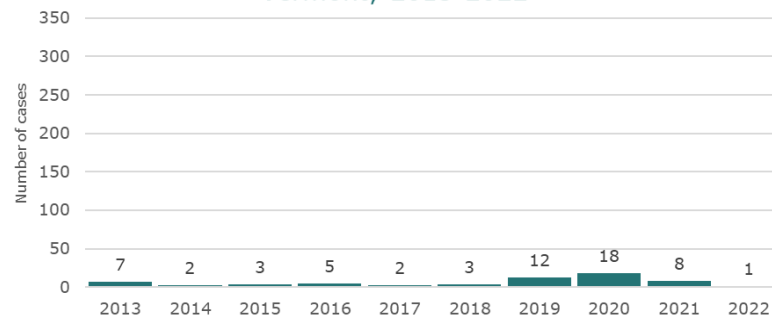
New Hampshire

Reported cases of hepatitis A virus infection
New Hampshire; 2013-2022

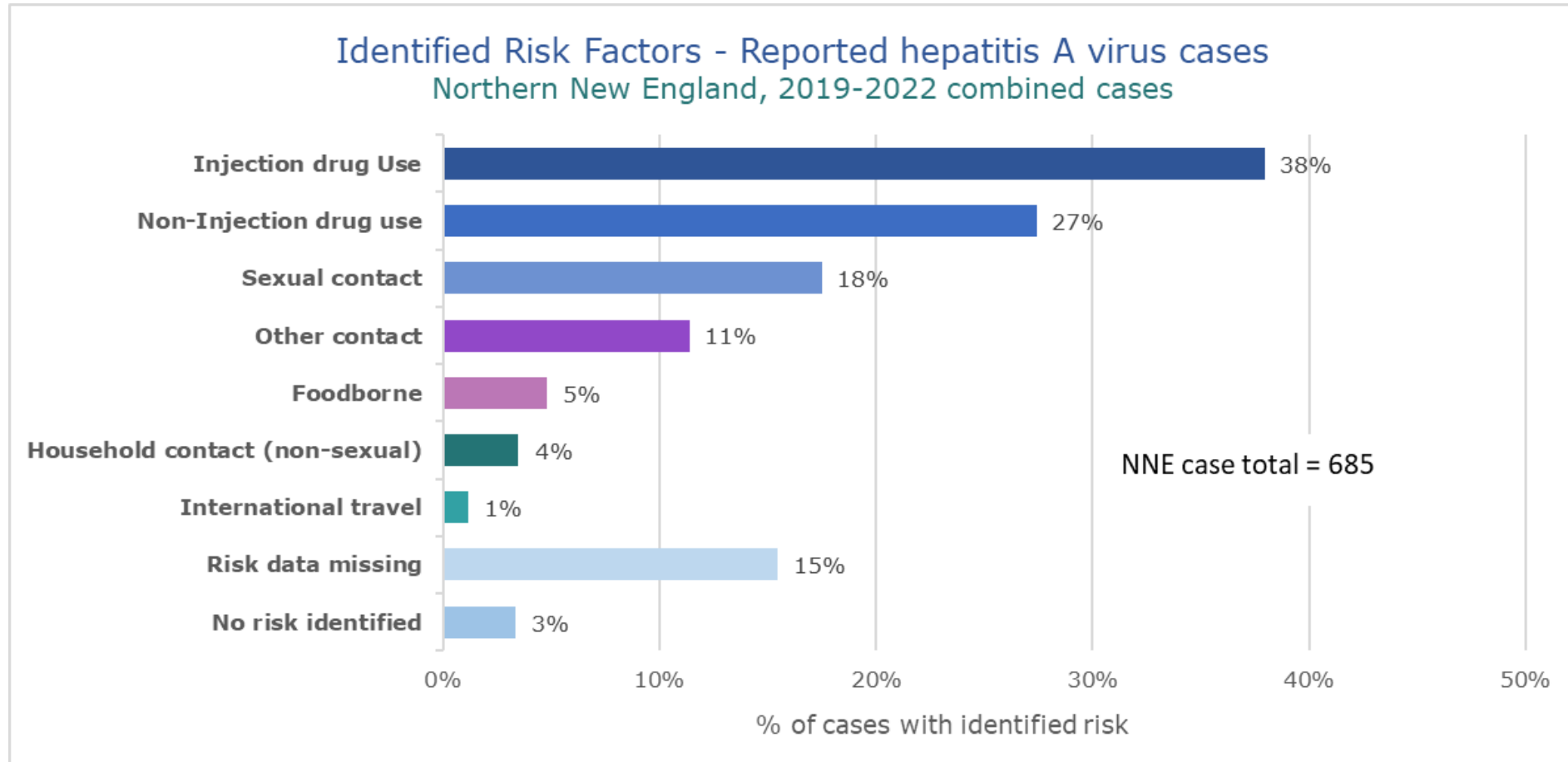


Vermont

Reported cases of hepatitis A virus infection
Vermont; 2013-2022



IV and non-IV drug use are the leading risk factors for hepatitis A transmission



Additional Risk Factors	Percent of Cases, 2019 - 2022 (NH and Maine only, VT data unavailable)
Unstable Housing / Homelessness	16.6%
Current / Recent Incarceration	1.9%



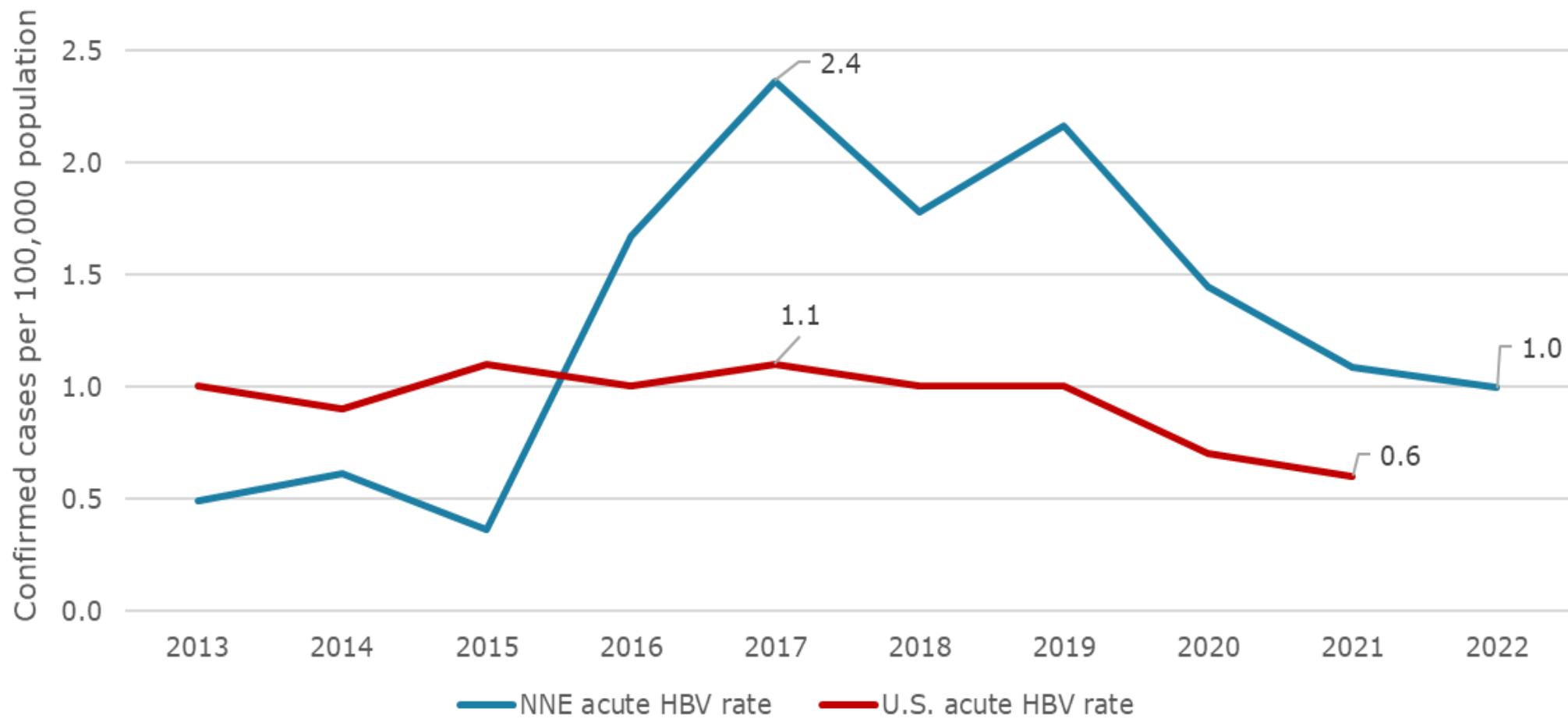
Hepatitis B

Acute and Chronic





Rate of reported cases of acute hepatitis B virus infection Northern New England and United States; per 100,000 population

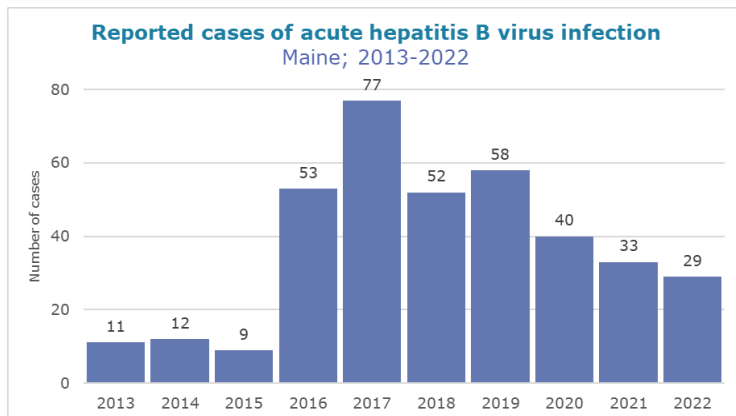




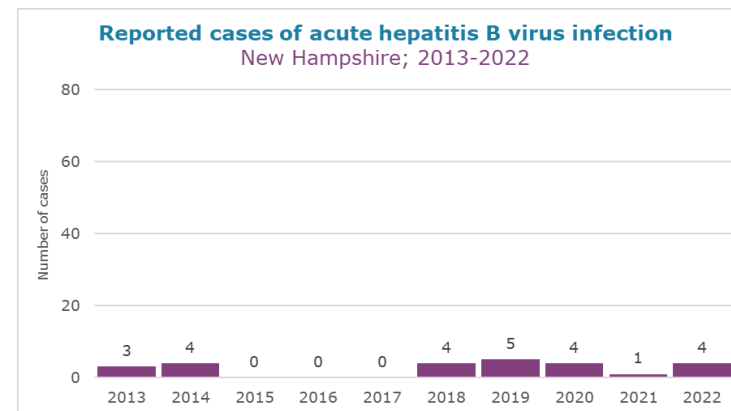
Number of reported cases of acute hepatitis B

Northern New England, 2013 - 2022

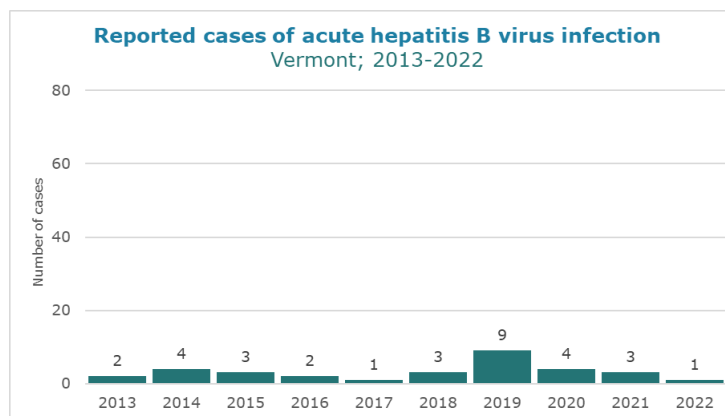
Maine



New Hampshire

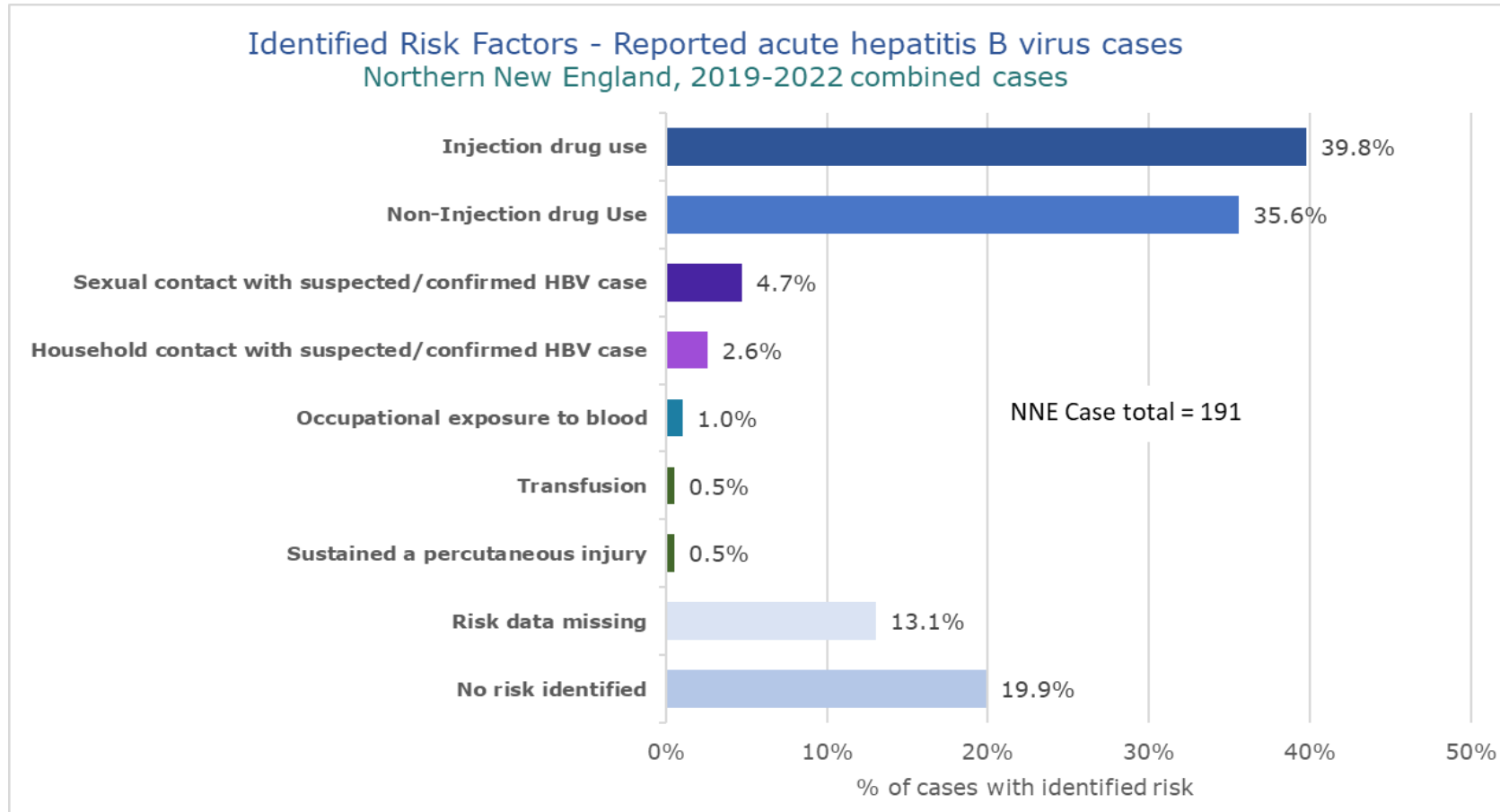


Vermont



*The charts with yearly state case count totals include both confirmed and probable cases.

IV and non-IV drug use are the leading risk factors for hepatitis B transmission



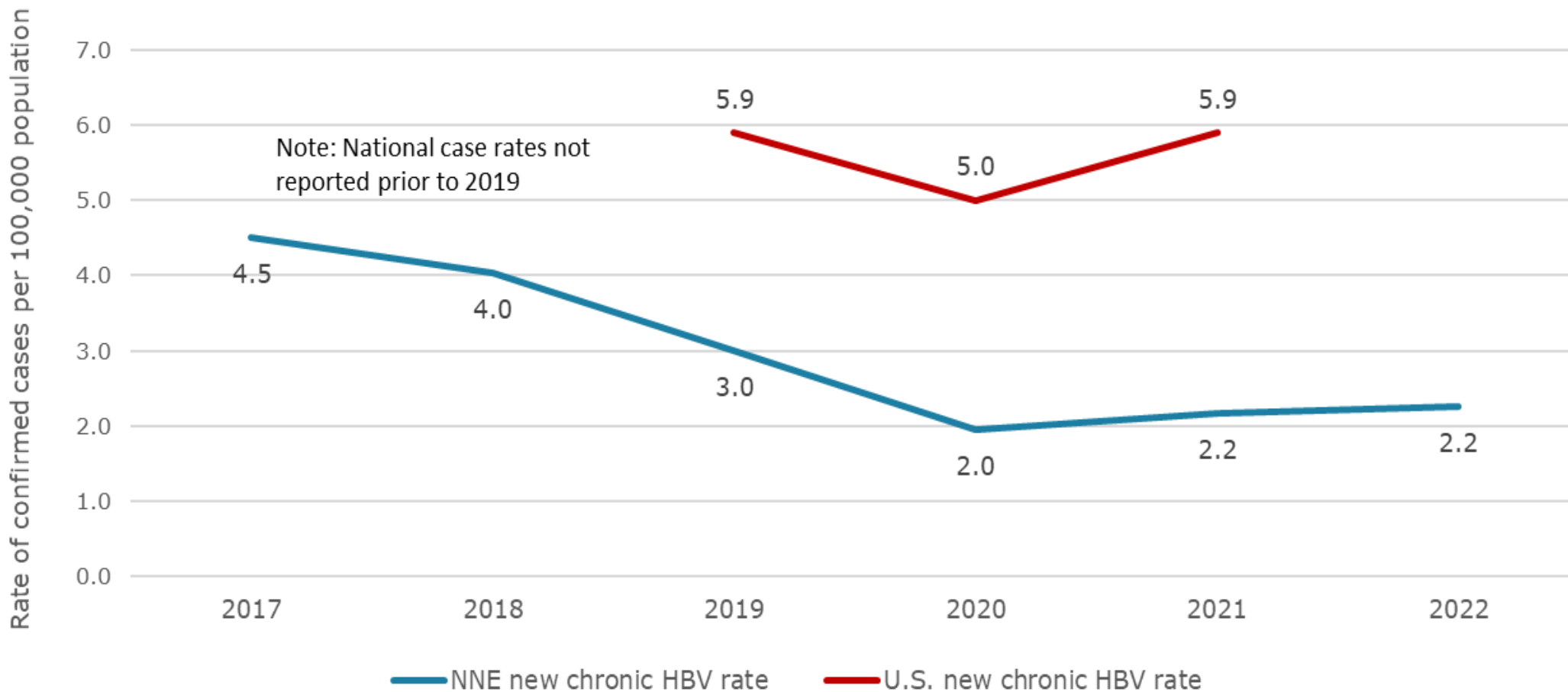
Additional Risk Factors	Percent of Cases, 2019 - 2022 (NH and Maine only, VT data unavailable)
Unstable Housing / Homelessness	0.6%
Current / Recent Incarceration	8.6%





Rate of newly reported cases of chronic hepatitis B infection

Northern New England and United States;
confirmed cases per 100,000 population

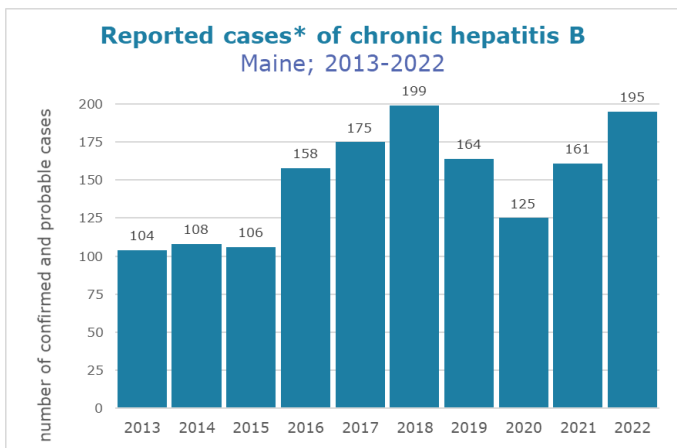




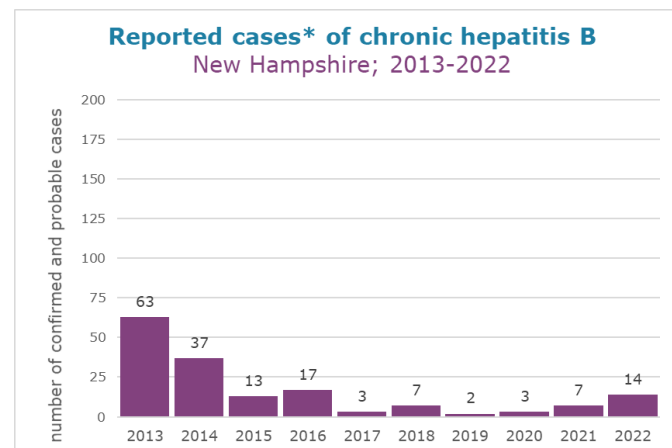
Number of reported cases of chronic hepatitis B

Northern New England, 2013 - 2022

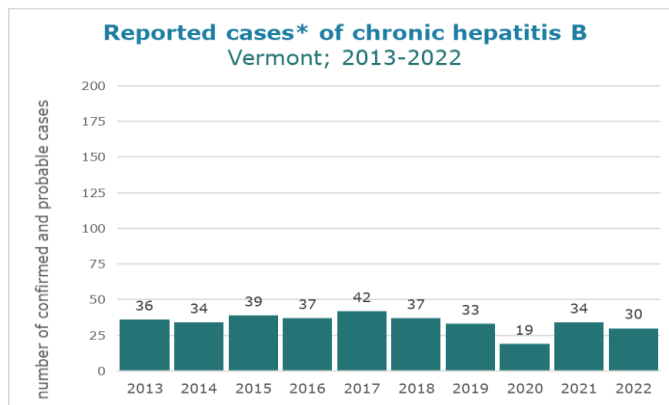
Maine



New Hampshire



Vermont



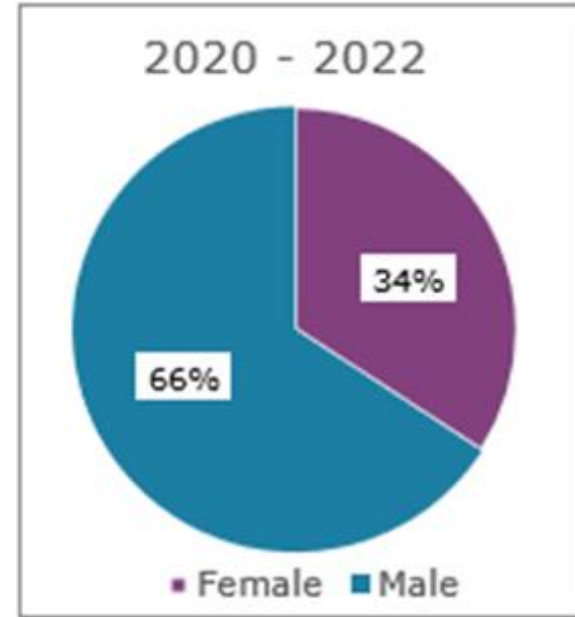
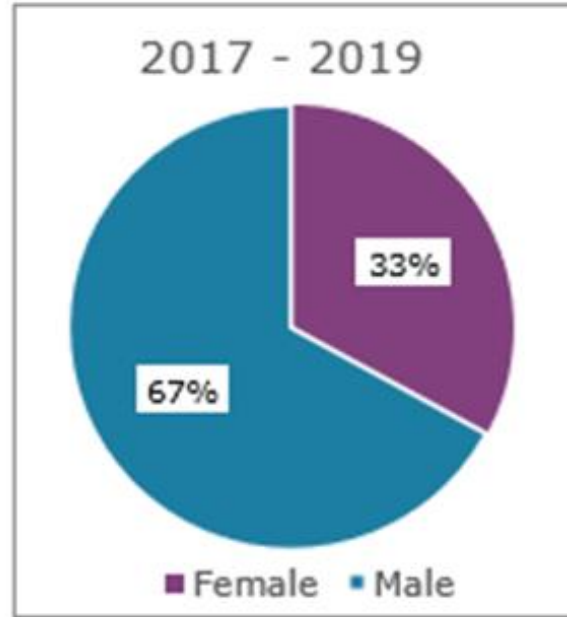
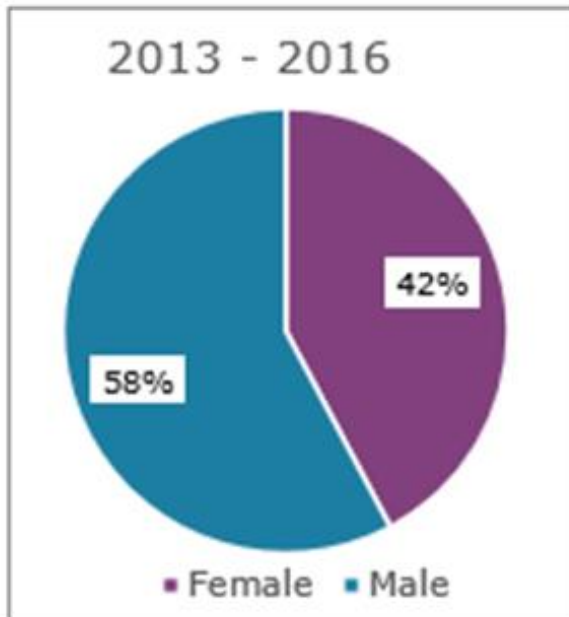
*The charts with yearly state case count totals include both confirmed and probable cases.



Demographic characteristics, newly reported *cases of chronic hepatitis B infection, Northern New England

*confirmed and probable cases

Sex



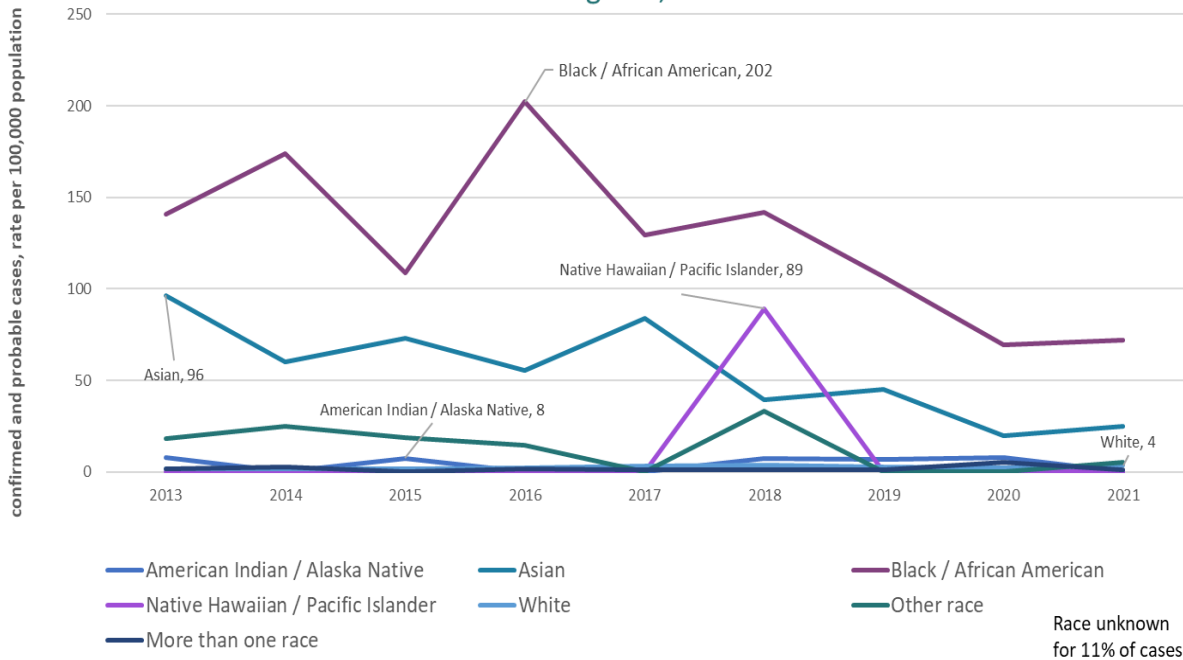


Demographic characteristics, newly reported *cases of chronic hepatitis B infection, Northern New England

*confirmed and probable cases

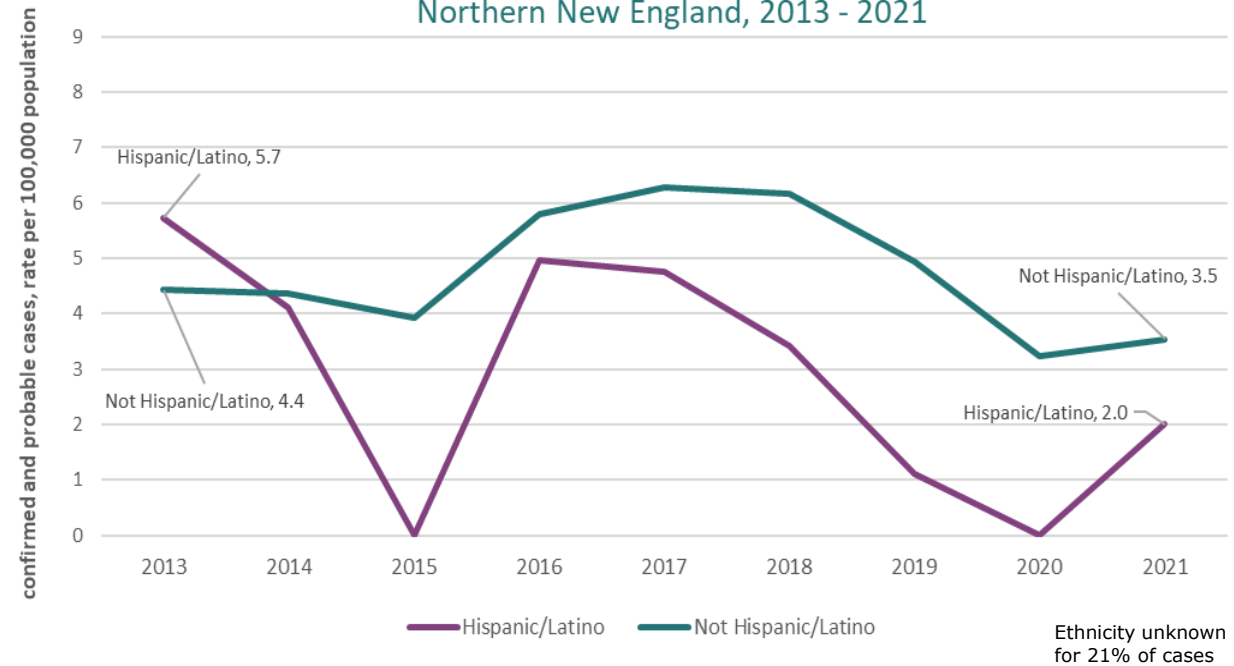
Race

Rate of newly reported cases of chronic hepatitis B by Race;
Northern New England, 2013 - 2021



Ethnicity

Rate of newly reported cases of chronic hepatitis B by Ethnicity;
Northern New England, 2013 - 2021



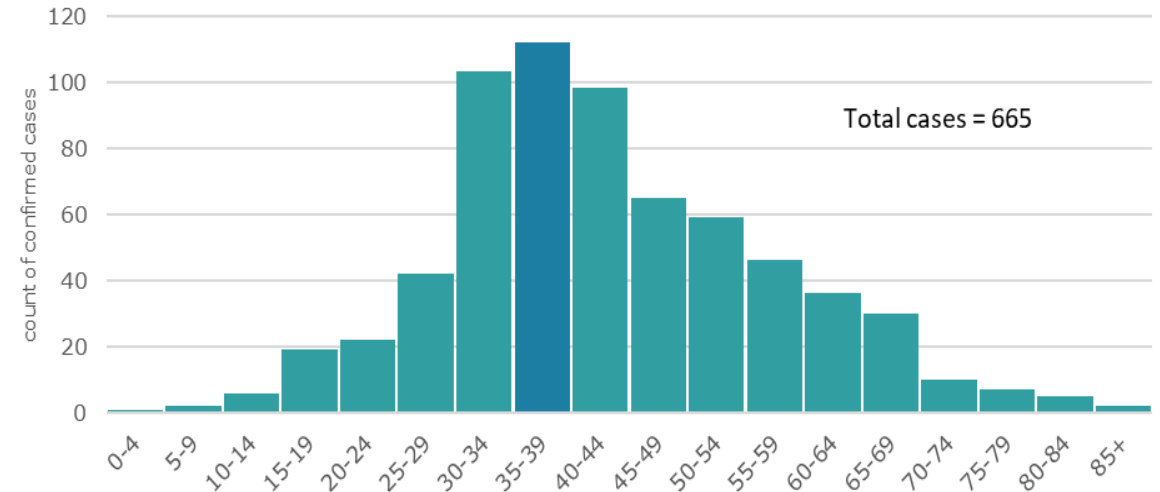


Age Profile, newly reported *cases of chronic hepatitis B infection, Northern New England

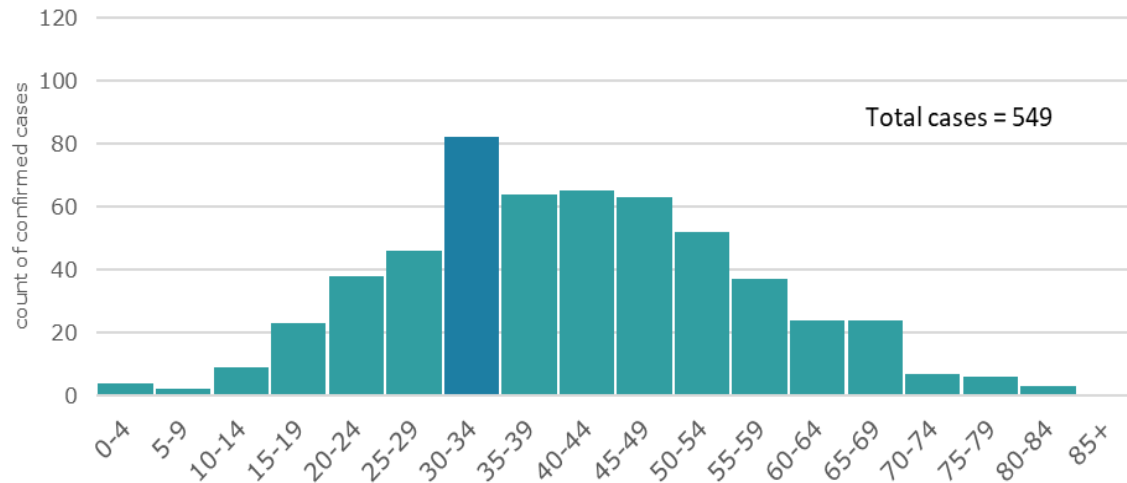
*confirmed and probable cases

Since 2014 the largest proportion of cases
have been those aged **30-39**

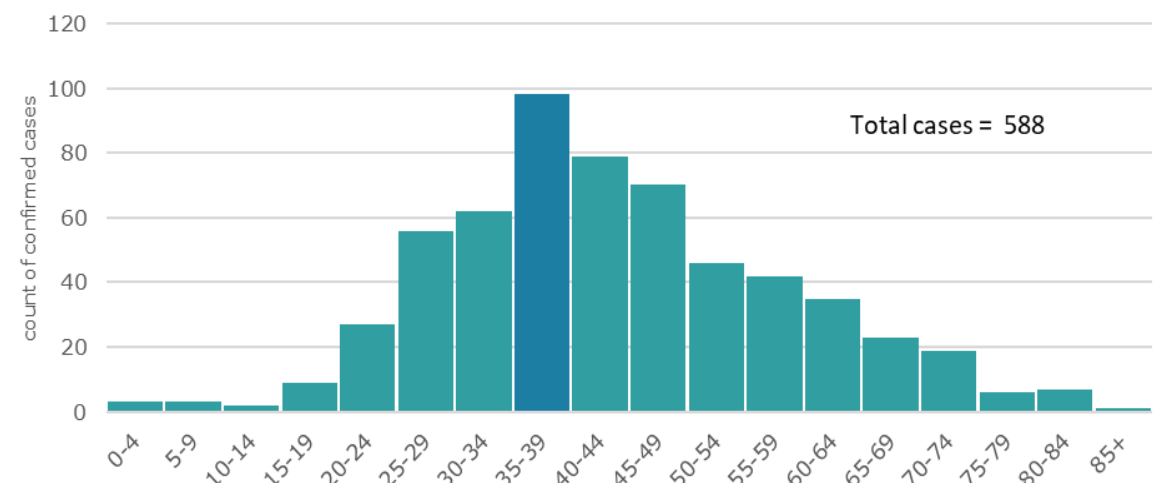
Age distribution of newly reported cases of chronic hepatitis B infection; Northern New England, 2017-2019



Age distribution of newly reported cases of chronic hepatitis B infection; Northern New England, 2014-2016



Age distribution of newly reported cases of chronic hepatitis B infection; Northern New England, 2020-2022



Hepatitis C

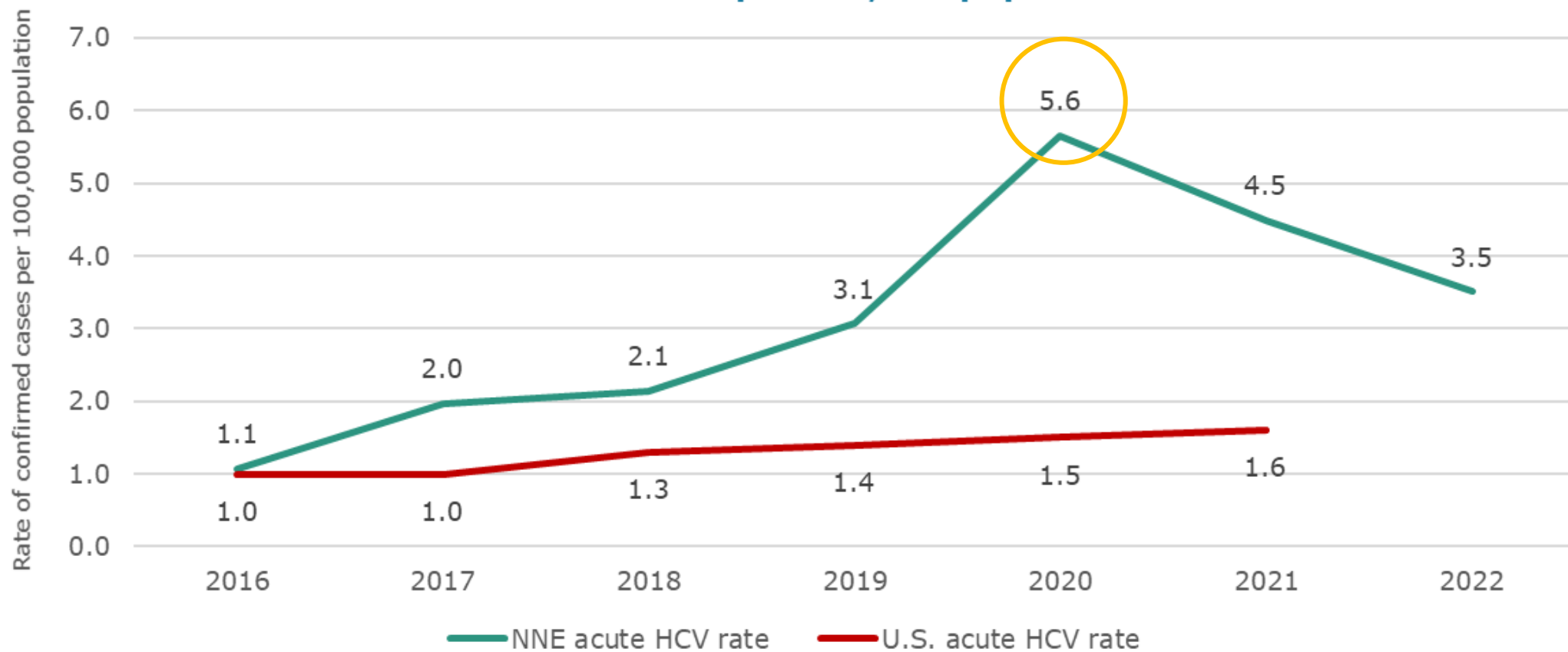
Acute and Chronic





Rate of reported cases of acute hepatitis C virus infection

Northern New England and United States, 2016-2022;
Confirmed cases per 100,000 population

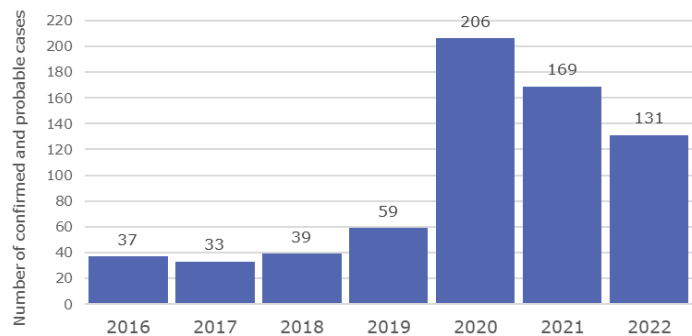




Number of reported cases of acute hepatitis C 2016 - 2022

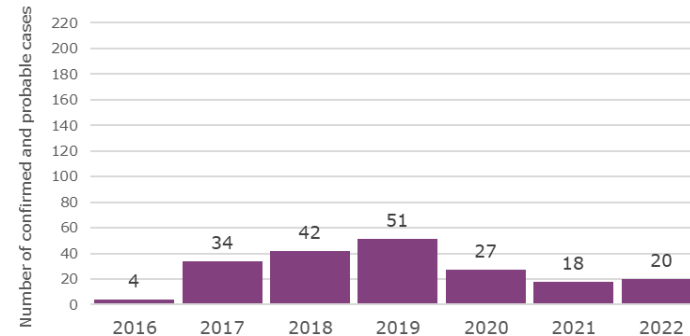
Maine

Reported *cases of acute hepatitis C
Maine; 2016-2022



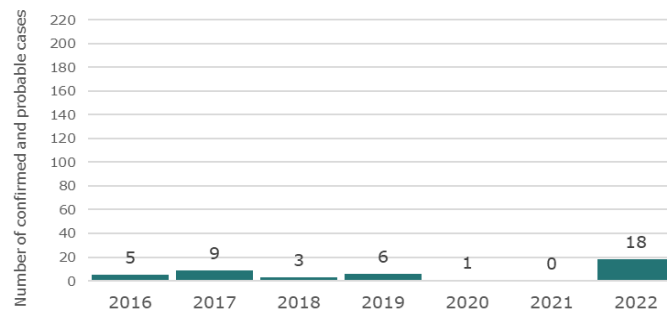
New Hampshire

Reported cases of acute hepatitis C
New Hampshire; 2016-2022



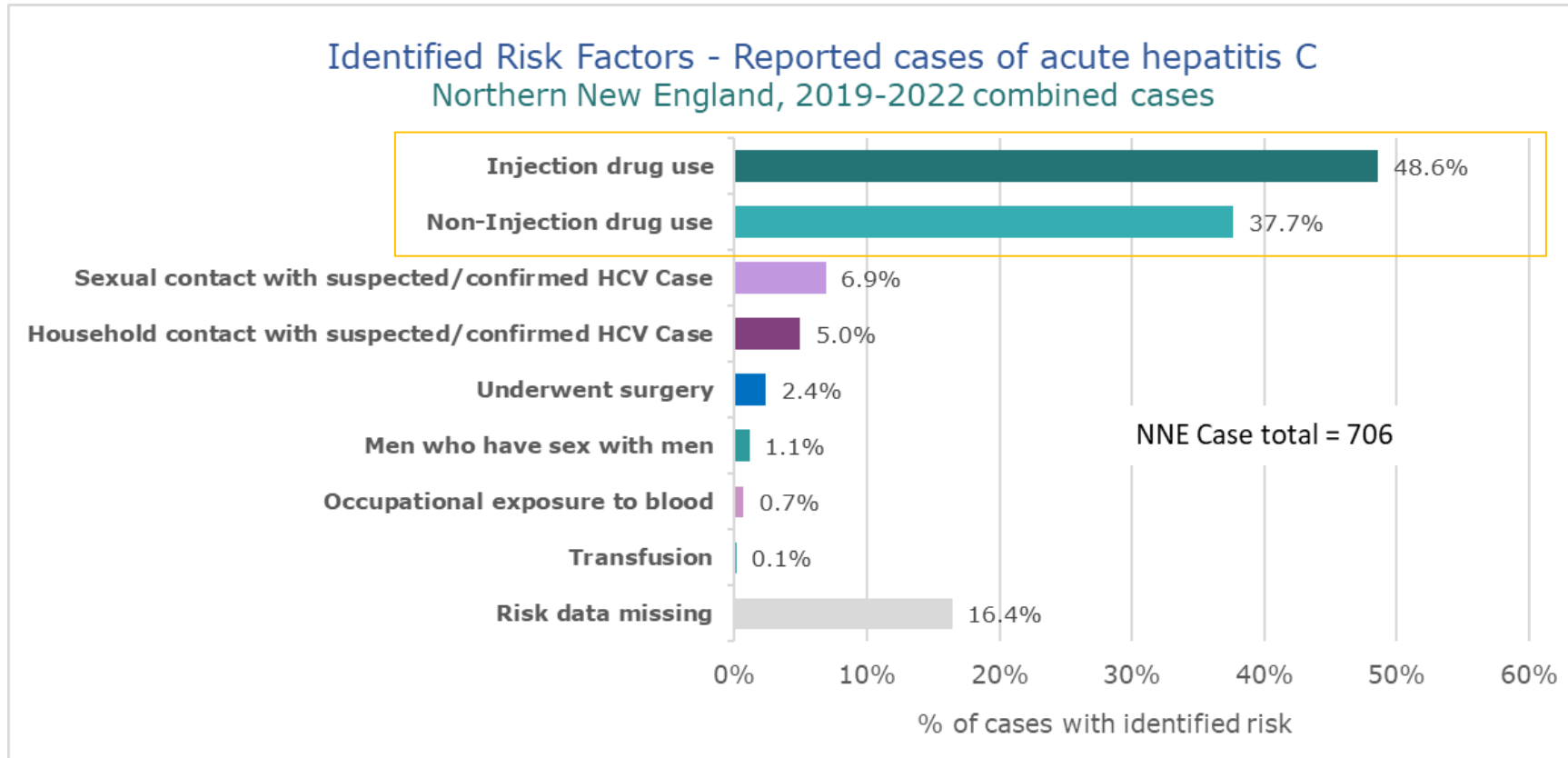
Vermont

Reported cases of acute hepatitis C
Vermont; 2016-2022



*The charts with yearly state case count totals include both confirmed and probable cases.

IV and non-IV drug use are the leading risk factors for hepatitis C transmission



Additional Risk Factors	Percent of Cases, 2019 - 2022 (NH and Maine only, VT data unavailable)
Current / Recent Incarceration	12.3%
Unlicensed Tattoo	5.9%
Unstable Housing / Homelessness	1.5%



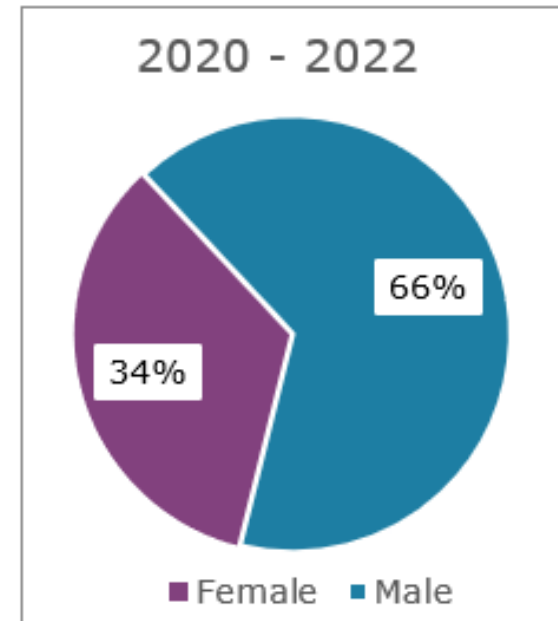
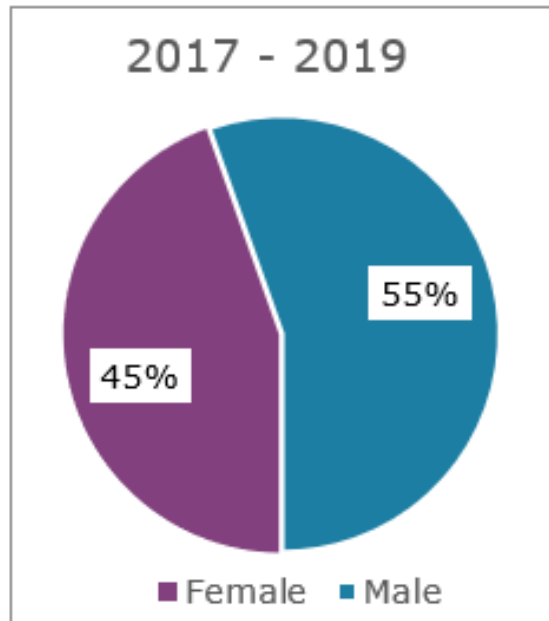
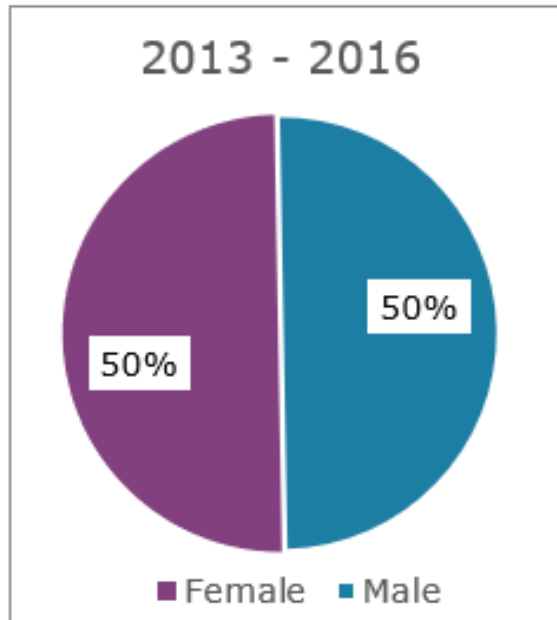


Demographic characteristics, newly reported *cases of acute hepatitis C infection, Northern New England

*confirmed and probable cases

Cases of acute hepatitis C are predominantly male

Sex





Demographic characteristics, newly reported *cases of acute hepatitis C infection, Northern New England

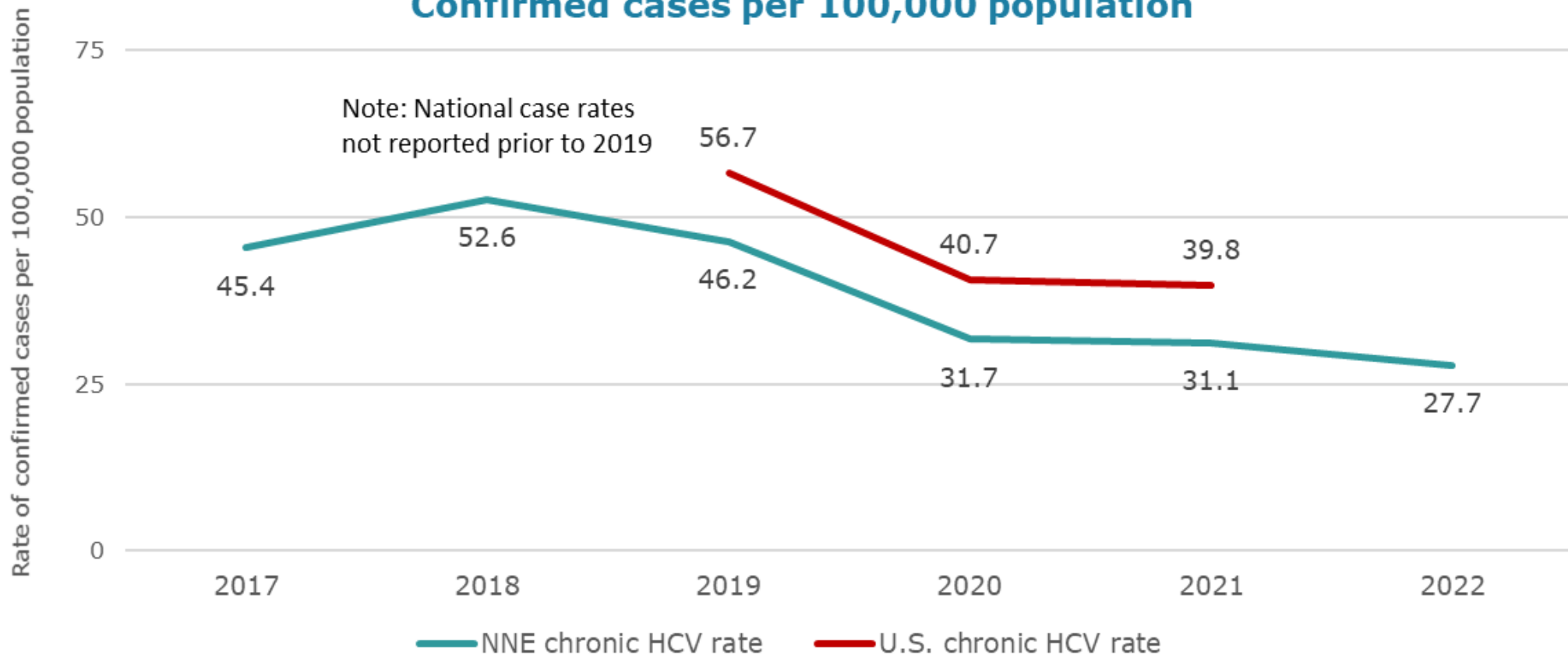
*confirmed and probable cases

Cases of acute hepatitis C are predominantly White, non-Hispanic/ Latino

Race and Ethnicity (2019 - 2022 combined)			
White	88%	Hispanic/Latino	2%
Black / African American	2%	Not Hispanic/Latino	77%
American Indian / Alaska Native	1%	Unknown	20%
Other	2%		
Unknown	8%		



Rate of newly reported cases of chronic hepatitis C virus infection Northern New England and United States, 2017-2022 Confirmed cases per 100,000 population

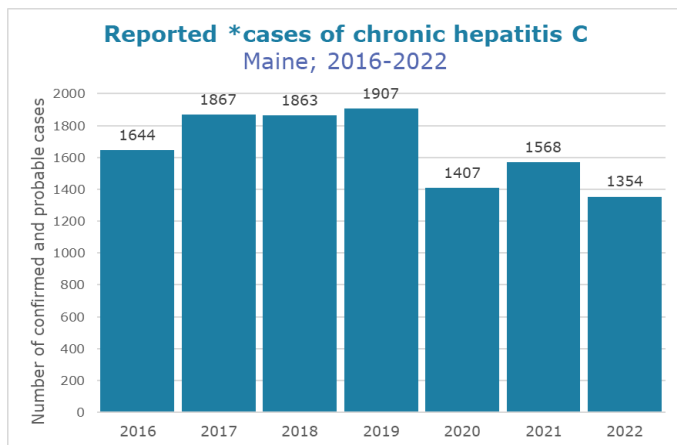




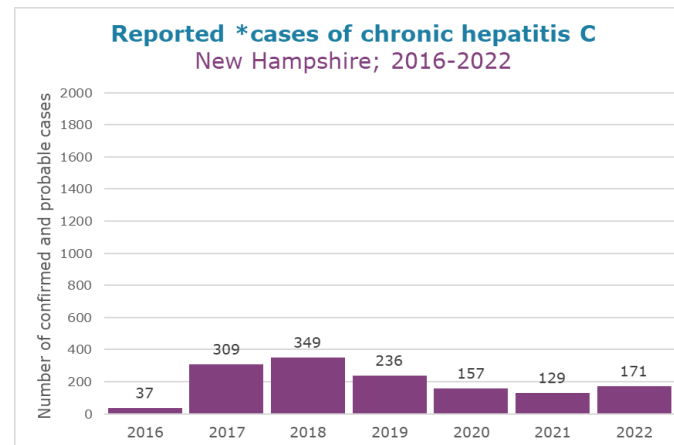
Number of reported cases of chronic hepatitis C

Northern New England, 2016 - 2022

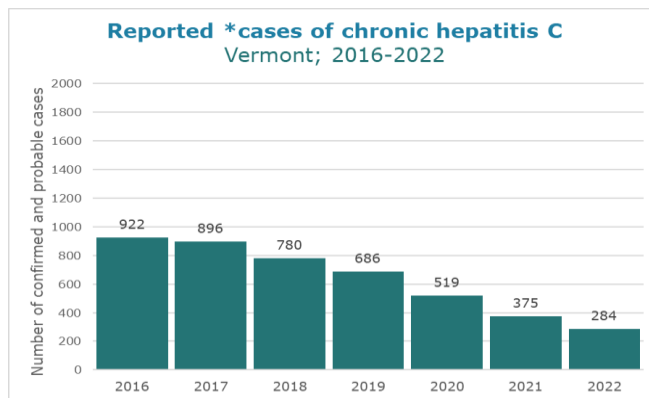
Maine



New Hampshire



Vermont



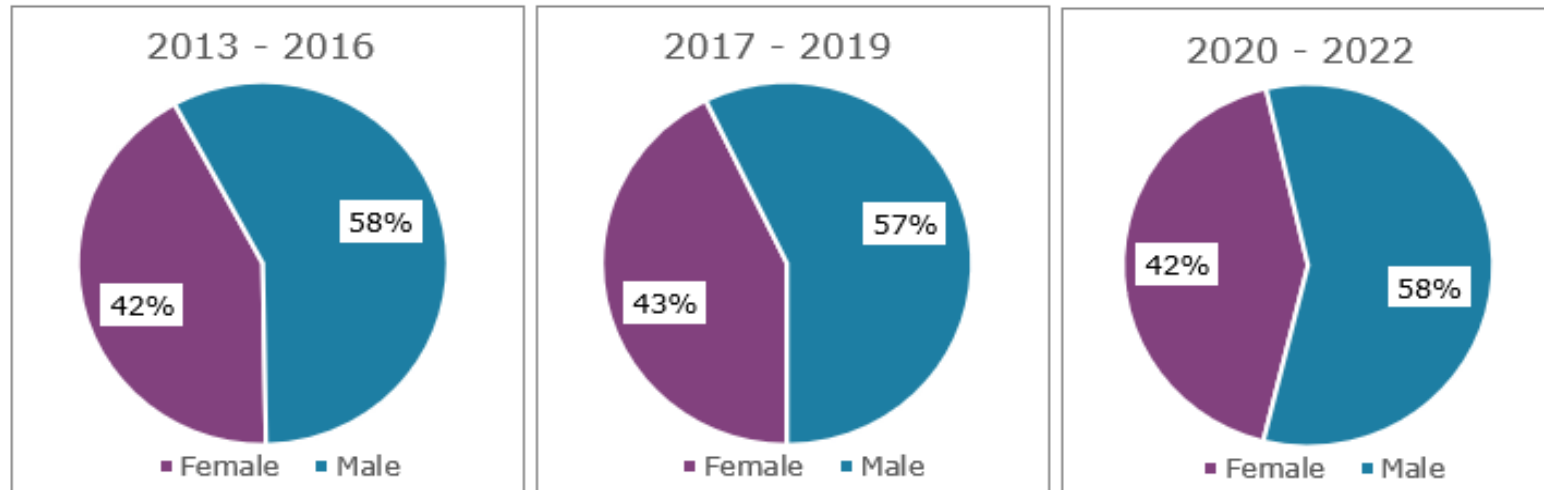
*The charts with yearly state case count totals include both confirmed and probable cases.



Demographic characteristics, newly reported *cases of chronic hepatitis C infection, Northern New England (2021)

*confirmed and probable cases

Sex



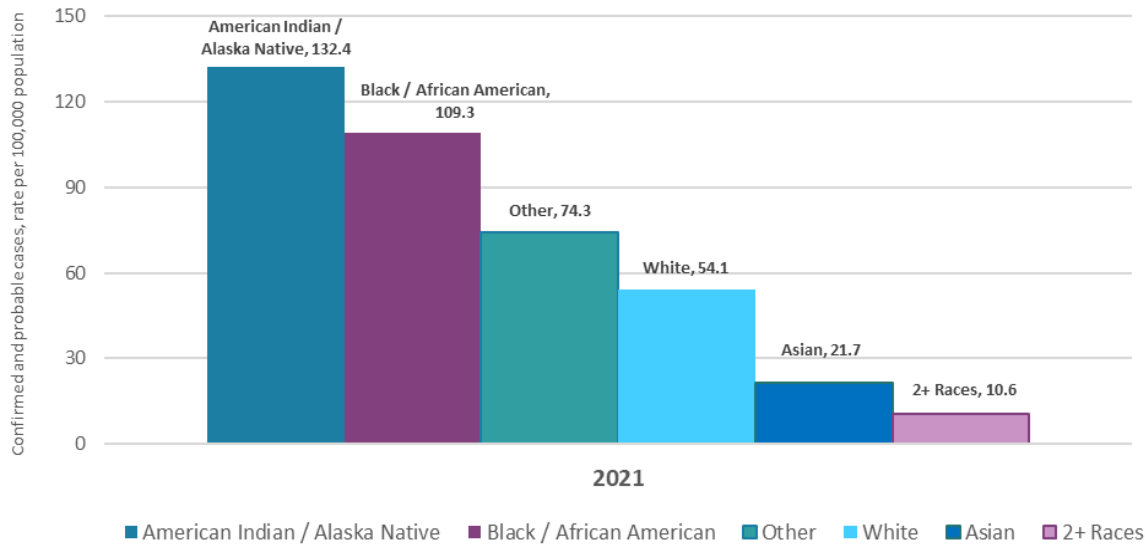


Demographic characteristics, newly reported *cases of chronic hepatitis C infection, Northern New England (2021)

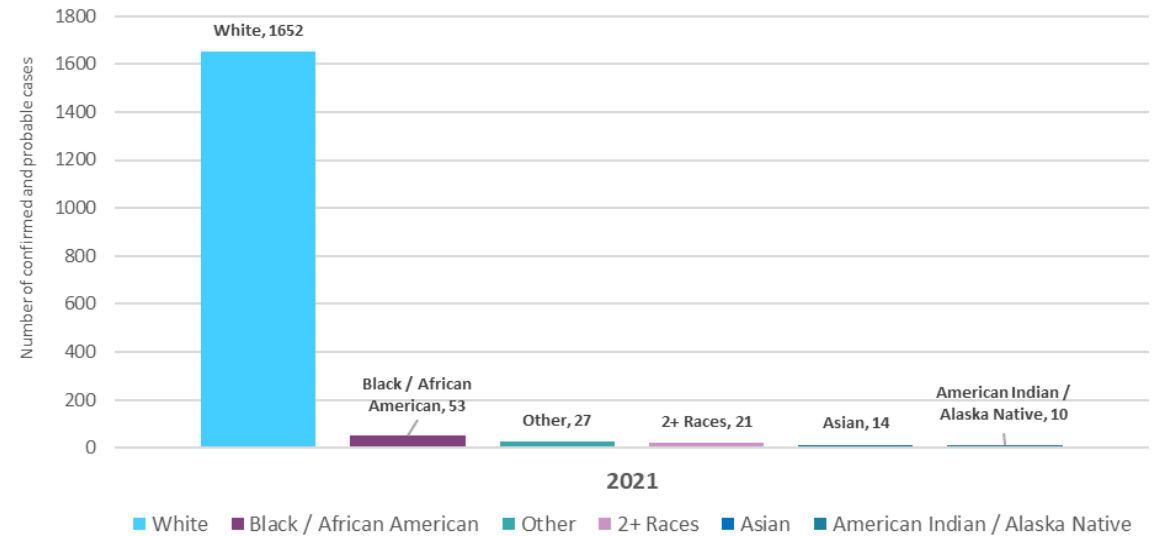
*confirmed and probable cases

Race

Rate of newly reported cases of chronic hepatitis C virus infection by Race; Northern New England, 2021



Number of newly reported cases of chronic hepatitis C virus infection by Race; Northern New England, 2021



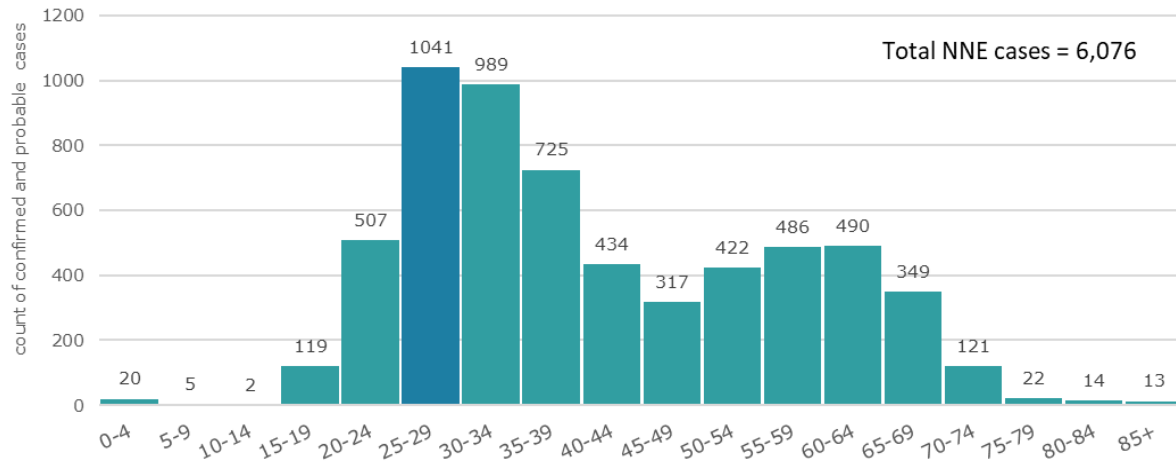
Note: Race is unknown for 14% of cases in 2021. For years prior to 2021, race is unknown for 53% of cases. Ethnicity is unknown for 37% of cases in 2021.



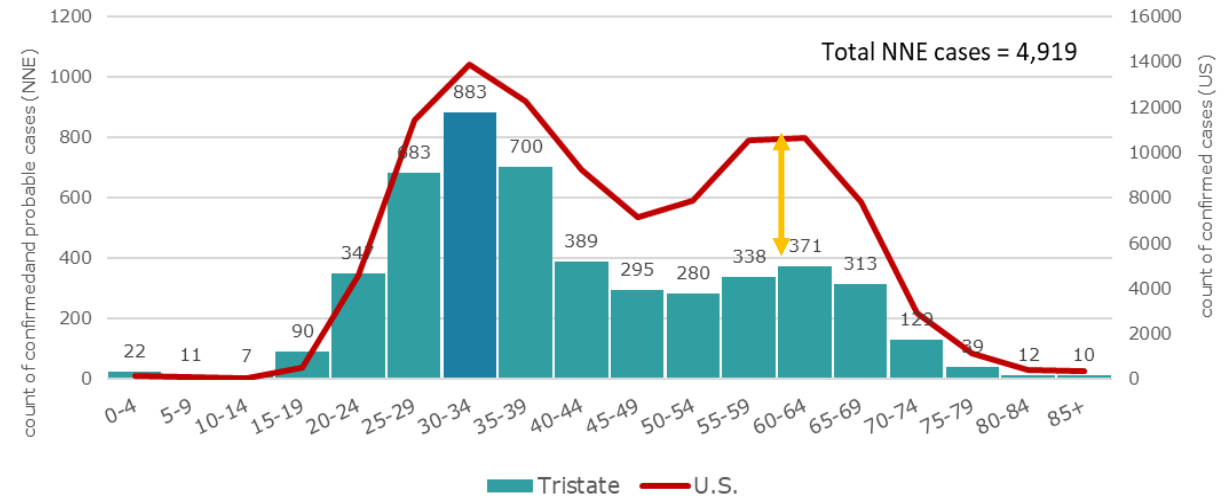
Age Profile, newly reported *cases of chronic hepatitis C infection, Northern New England

*confirmed and probable cases

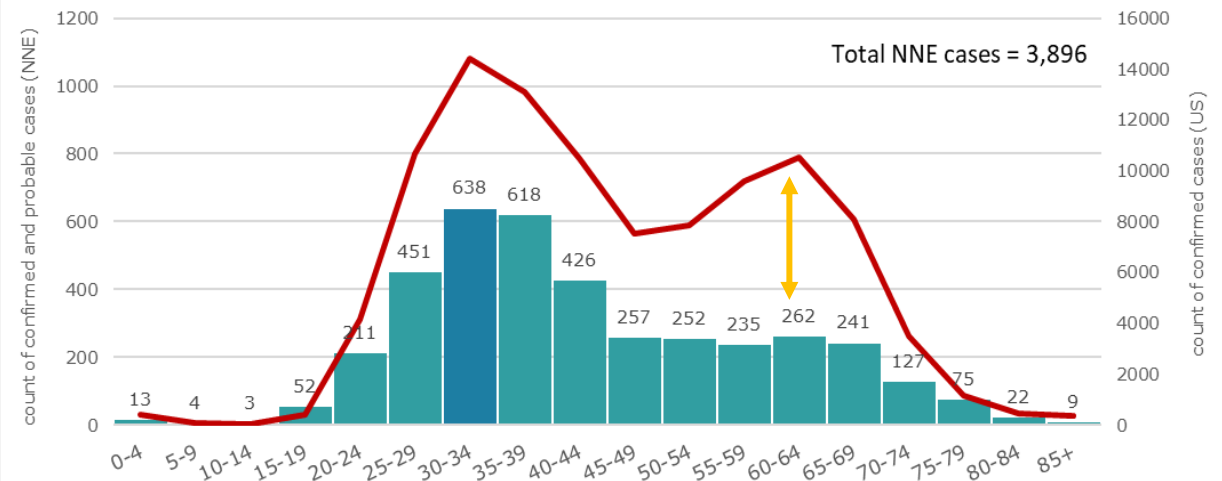
Age distribution of newly reported cases of chronic hepatitis C infection;
Northern New England, 2017-2018



Age distribution of newly reported cases of chronic hepatitis C infection;
Northern New England, 2019-2020 and United States, 2020

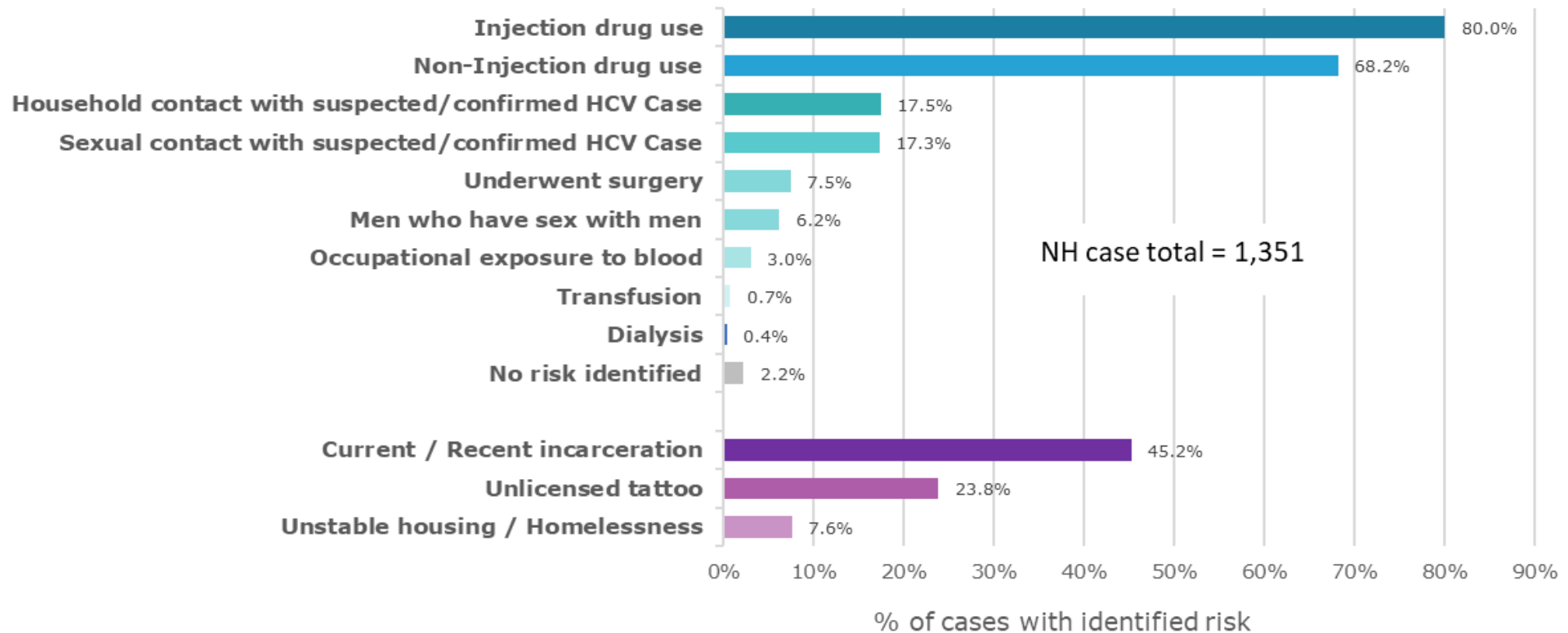


Age distribution of newly reported cases of chronic hepatitis C infection;
Northern New England, 2021-2022



IV and non-IV drug use are the leading risk factors for hepatitis C transmission

Identified Risk Factors - Reported chronic hepatitis C virus infection cases
New Hampshire only, 2017 to 2022 combined cases

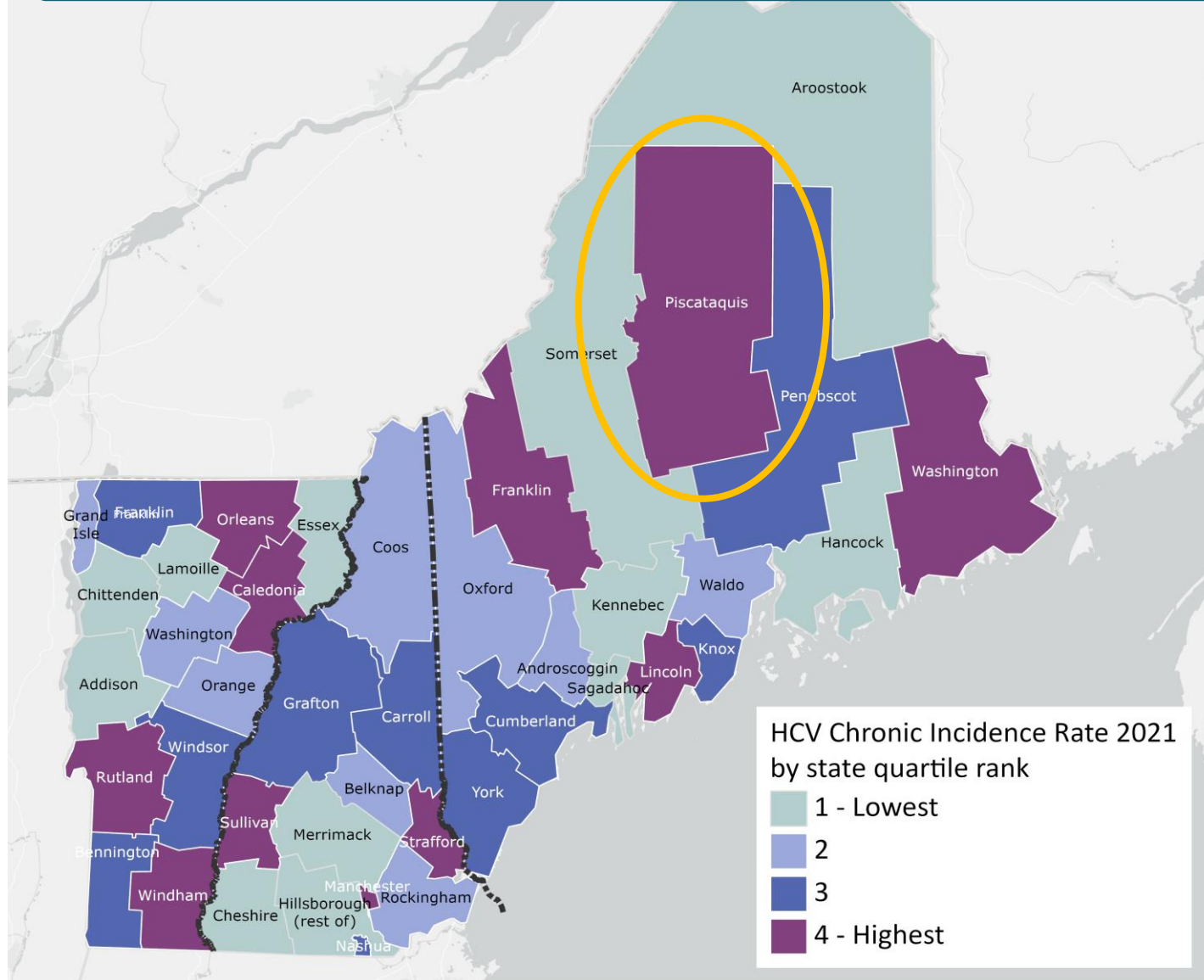


Note: Risk information is unavailable over the time range for Vermont cases and most Maine cases of chronic HCV.

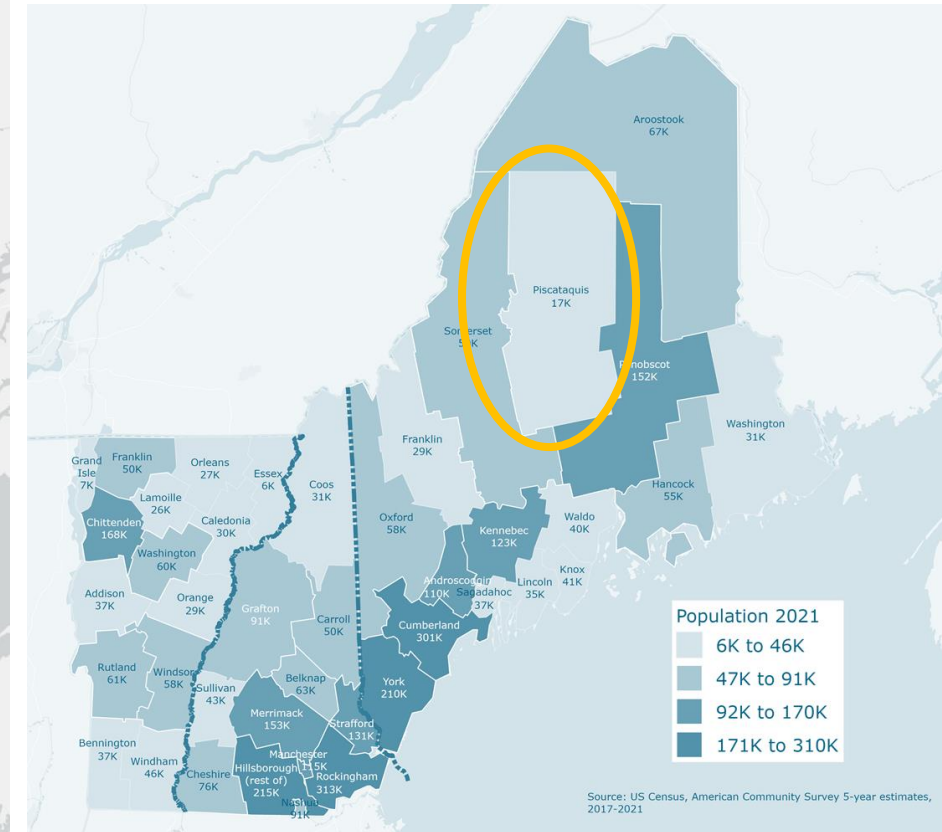


Highest rates of hep C occur in most rural counties

County-level rates of chronic hepatitis C infection;
Maine, New Hampshire and Vermont, 2021



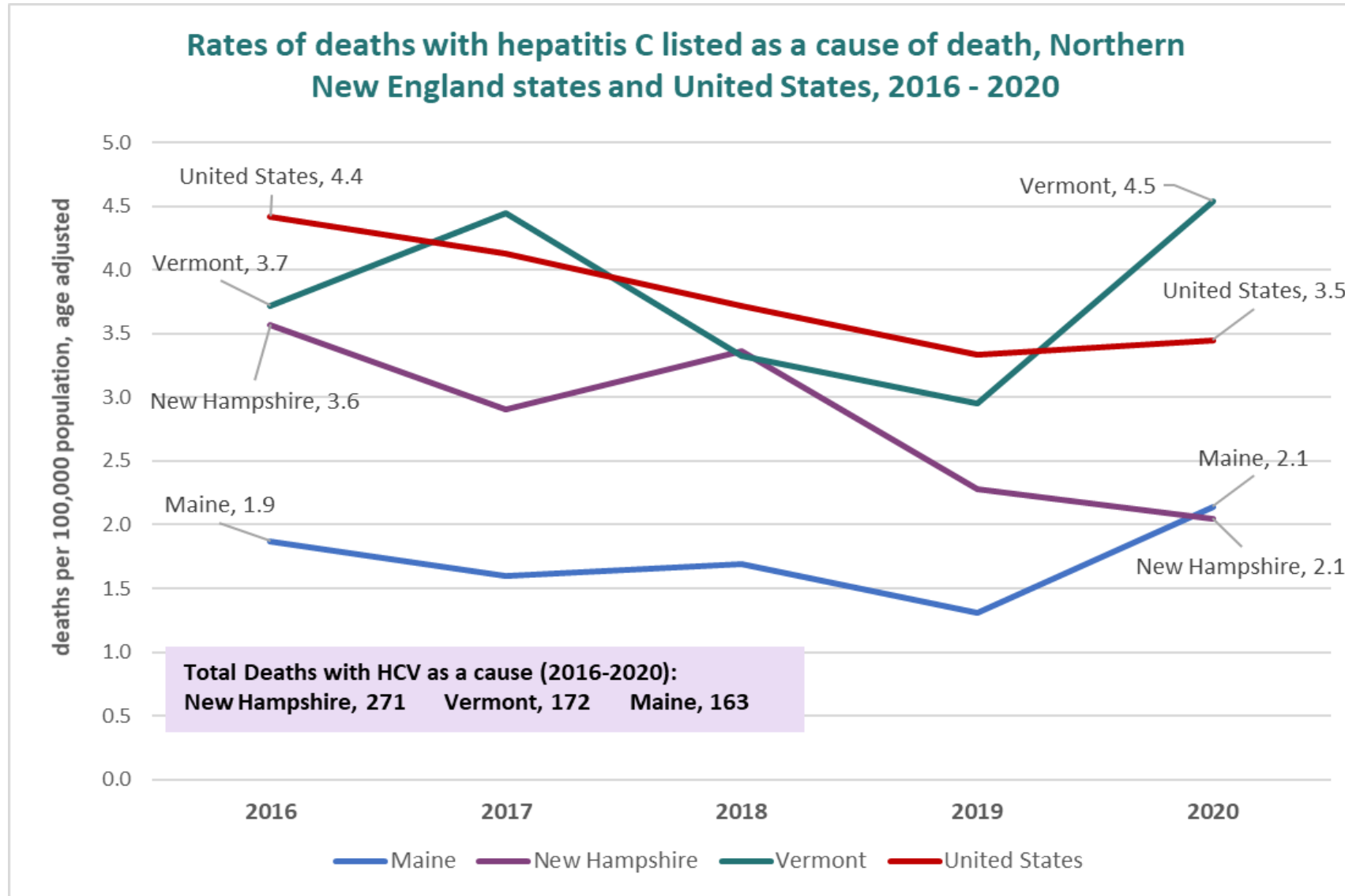
Population Distribution



Source: US Census, American Community Survey 5-year estimates, 2017-2021



Rates of death with hepatitis C are highest in Vermont; Maine and New Hampshire below U.S. rate

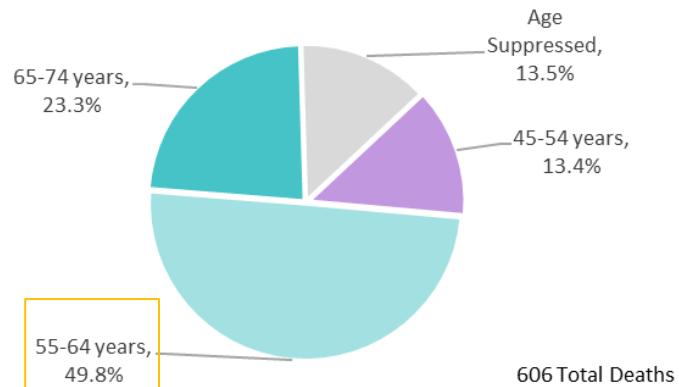


Source: CDC Wonder, cause of death is defined as one of the multiple causes of death and is based on the International Classification of Diseases, 10th Rev. (ICD-10) codes B17.1, and B18.2 (hepatitis C).

People aged 55-64 account for the largest proportion of deaths with hepatitis C

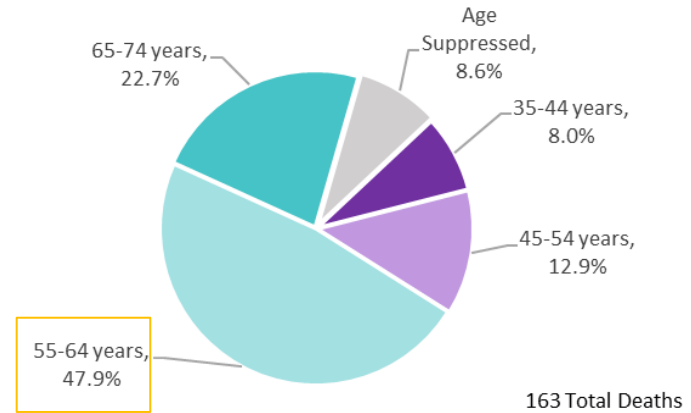
Deaths with hepatitis C listed as a cause of death by age group, 2016-2020

Northern New England



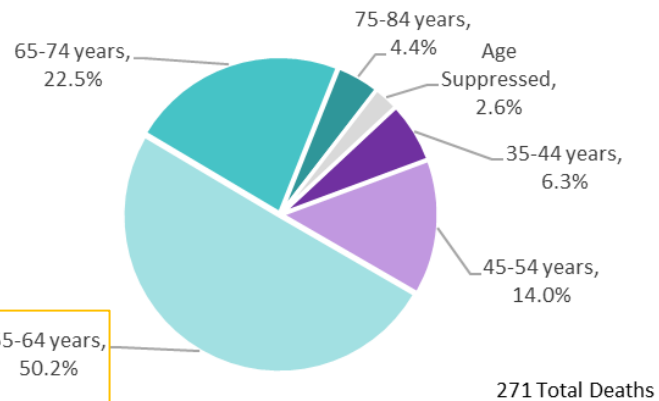
Deaths with hepatitis C listed as a cause of death by age group, 2016-2020

Maine



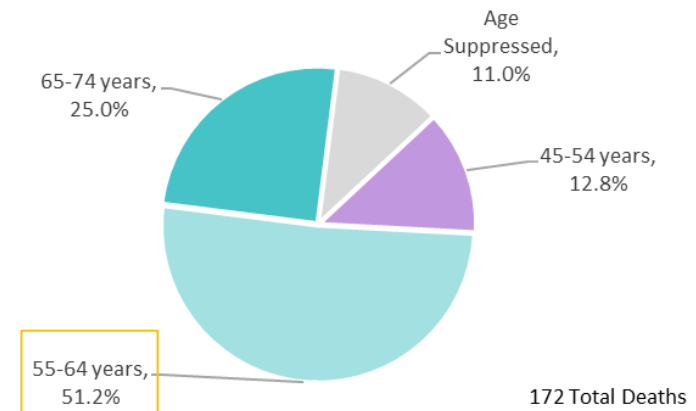
Deaths with hepatitis C listed as a cause of death by age group, 2016-2020

New Hampshire



Deaths with hepatitis C listed as a cause of death by age group, 2016-2020

Vermont



Surveillance and Reporting

- Because of varying state laws, resources, and infrastructure, health departments have varying levels of reporting and data completeness on hepatitis B and hepatitis C.
- Additionally, diagnosing every acute case is impossible, because symptoms might be either so mild that the person does not seek care or too vague to prompt a healthcare provider to suspect and test for viral hepatitis.



Data sources

Maine Center for Disease Control & Prevention, Division of Disease Surveillance, Disease Surveillance Epidemiology Program

New Hampshire Department of Health and Human Services, Bureau of Infectious Disease Control, Infectious Disease Surveillance Section

Vermont Department of Health, Division of Health Surveillance

Centers for Disease Control and Prevention. Viral Hepatitis Surveillance Report – United States, 2020. <https://www.cdc.gov/hepatitis/statistics/2020surveillance/index.htm>.
Published September 2022.

Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 1999-2020 on CDC WONDER Online Database

United States Census Bureau, American Community Survey, Selected Tables, 2017-2021 ACS 5-year Estimates; 2021 ACS 1-year Estimates

2023 County Health Rankings, University of Wisconsin Population Health Institute

Substance Abuse and Mental Health Services Administration (SAMHSA) Treatment Locator , U.S. Department of Health and Human Services 2023 <https://findtreatment.gov/locator>

Maine Center for Disease Control & Prevention <https://www.maine.gov/dhhs/mecdc/infectious-disease/hiv-std/services/syringe-service-programs.shtml>

NH Harm Reduction Coalition <https://www.nhhrc.org/syringe-services-programs>

Vermont Department of Health <https://www.healthvermont.gov/disease-control/hiv-std-hepatitis-community-resources/syringe-service-programs>





Questions?



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Coming up next!

10:45-11:00am – Break

11:00-11:45am – Interactive Priority-Setting for the Elimination Plan

11:45am-12:00pm – Next Steps and Closing Q&A

Please do not leave the breakout room or the Zoom meeting!

- **You will be brought back to the main Zoom room automatically at 10:59am**

