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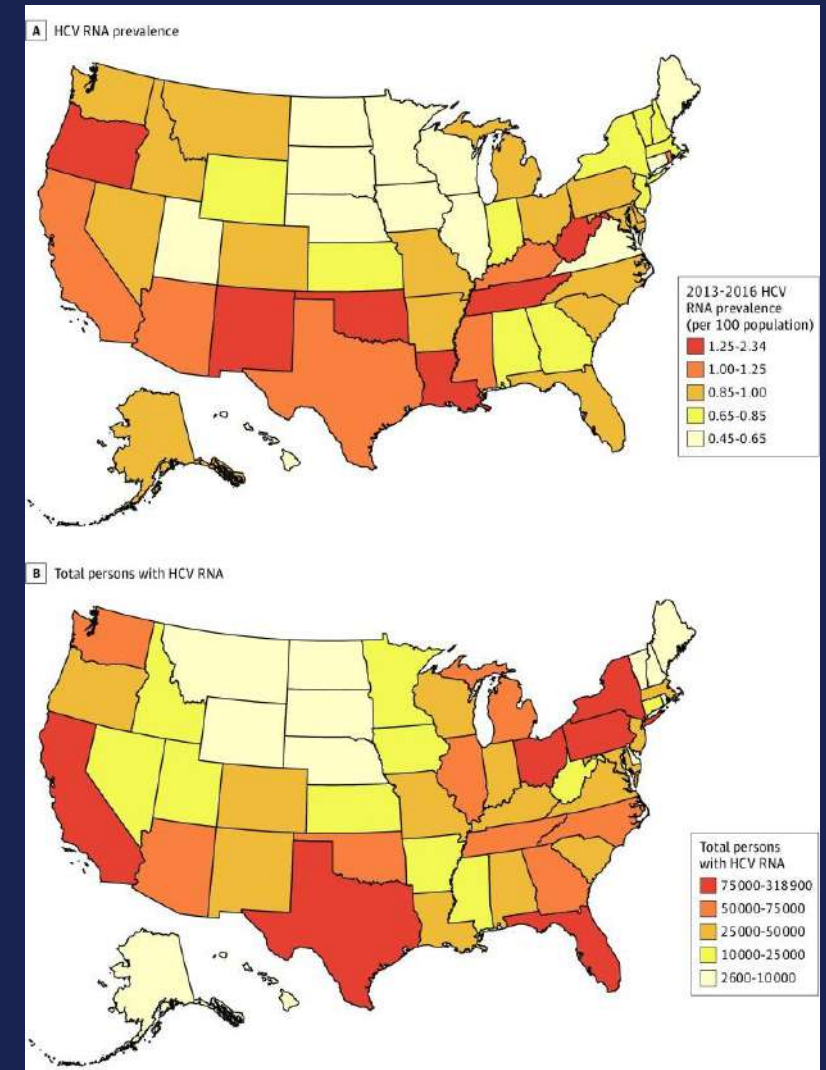
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Hepatitis C Surveillance in Texas

Carlos R. Alvarez, MPH, CPH

Hepatitis C in the United States

- Most common blood-borne infection in the US
- An estimated 2.3 million persons in the United States are living with hepatitis C ¹
- In 2013, HCV killed more people than all other infectious diseases reported to CDC ²
- 25% of those living with HIV in the US are co-infected with hepatitis C ³



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Hepatitis C Prevalence in Texas

- In 2015, Estimated 584,196 (357,098 to 1,313,077; 95% CI) people in Texas living with Chronic Hepatitis C
Based on the U.S. Census 2015 Texas population estimated at 27,469,114 and a national published hepatitis C prevalence rate estimate from 2003-2010 NHANES data (adjusted for the limitations of not including populations of homeless, incarcerated, and institutionalized persons) of 1.3 percent
- In 2018, Estimated 202,500 people in Texas living with Chronic Hepatitis C
Rosenberg, E.S., Rosenthal, E.M., Hall, E.W., Barker, L. et al. (2018). Prevalence of Hepatitis C Virus Infection in US States and the District of Columbia, 2013 to 2016. JAMA Network Open, 1(8), e186371.doi:10.1001/jamanetworkopen.2018.6371
- Hepatitis C Surveillance Team currently working on updating prevalence estimate
Disease Progression Model
HCV surveillance data



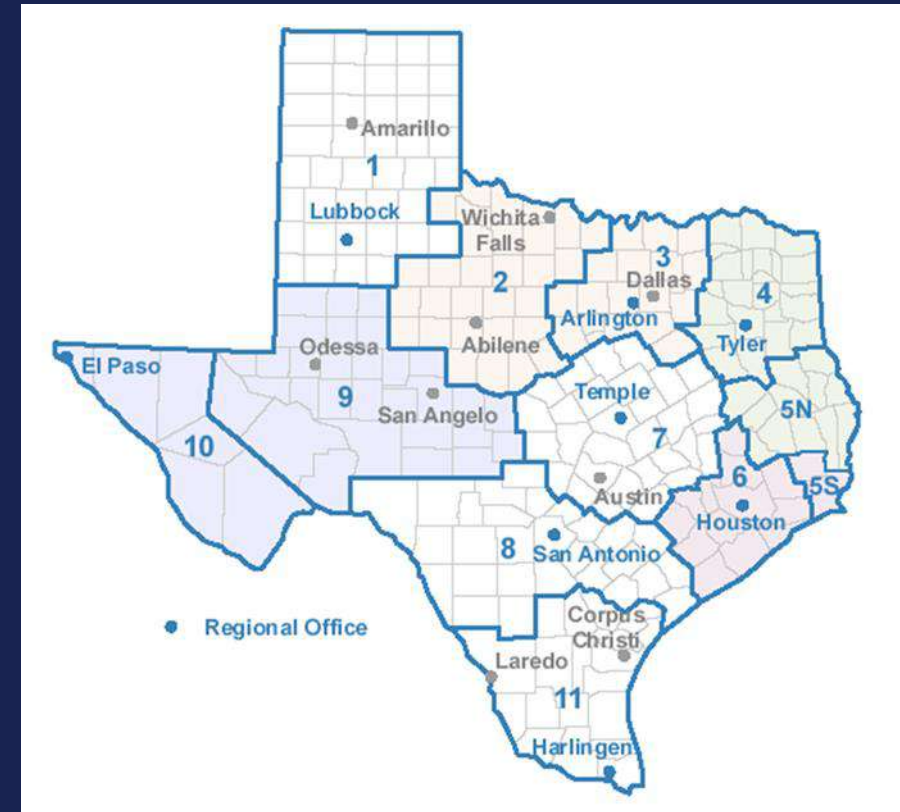
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HCV Surveillance Overview

- HCV Surveillance Team in Central Office (Austin)
- 8 Public Health Regional Offices across the State
1, 2/3, 4/5N, 6/5S, 7, 8, 9/10
- 111 City or County Health Departments
- Only acute HCV is reportable in Texas



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HCV Surveillance Core Activities

- Review and approve HCV investigations from LRHD
- Identify quality assurance issues on HCV investigations
- Serve as SMEs for investigators regarding acute HCV case identification and reporting
- Conduct different descriptive analyses of acute HCV case data for annual report
- Fulfill external and internal HCV data requests



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Data Sources

Laboratories

- ELRs
- Paper Labs

Providers

- Infectious Disease Report for Notifiable Diseases



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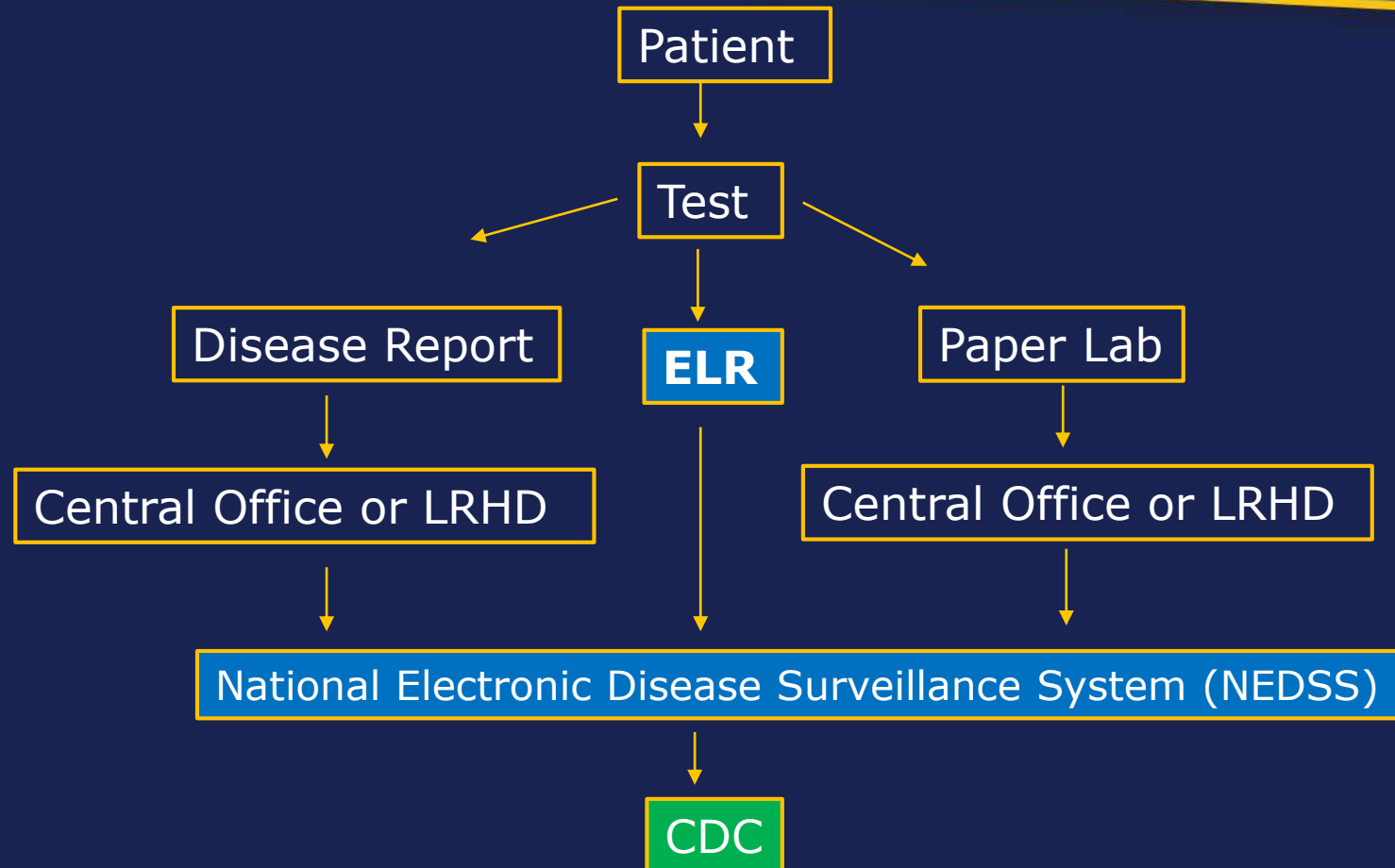
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Surveillance Flow



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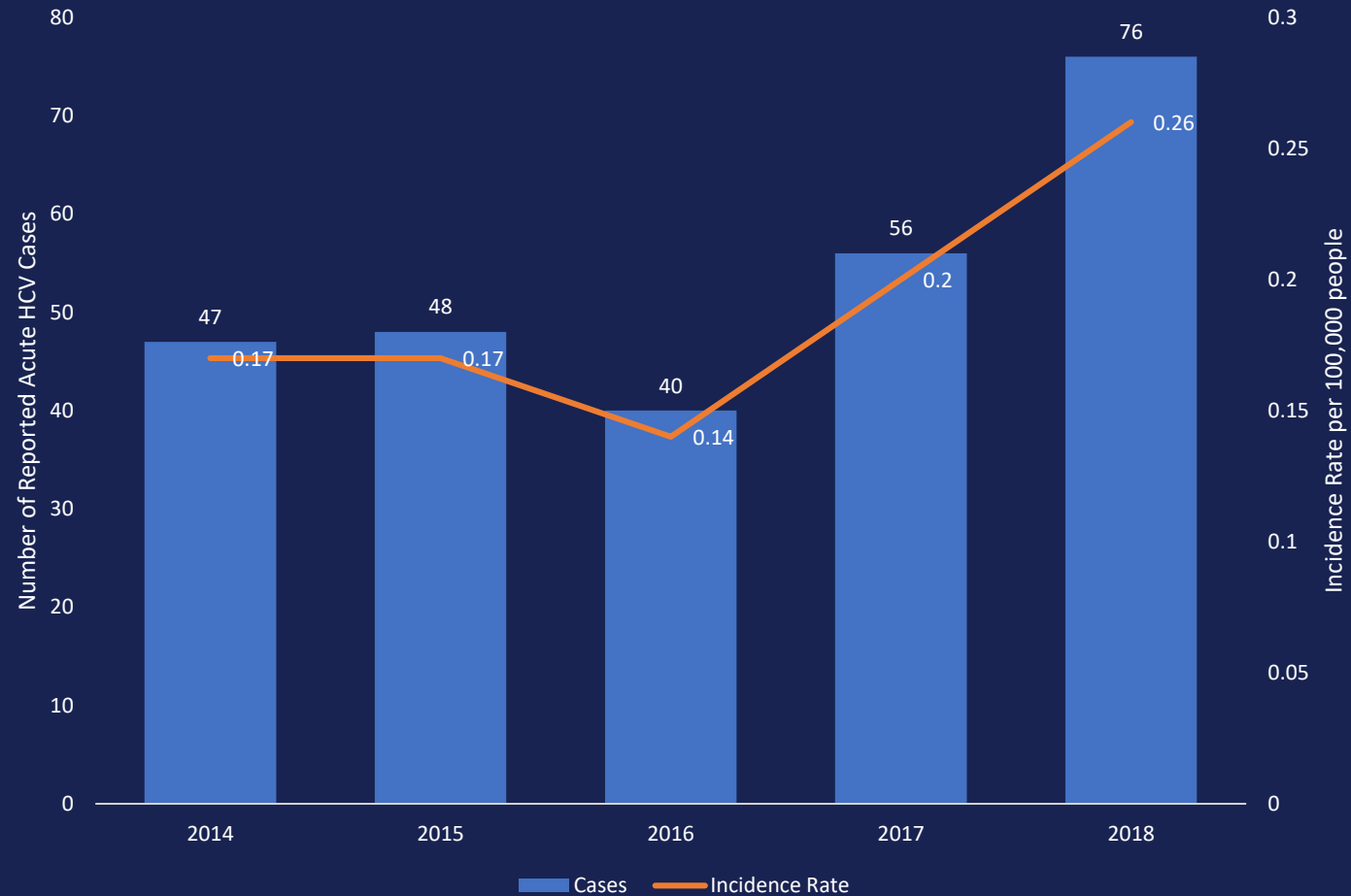


Number of acute HCV cases and Incidence Rate in Texas, 2014-2018



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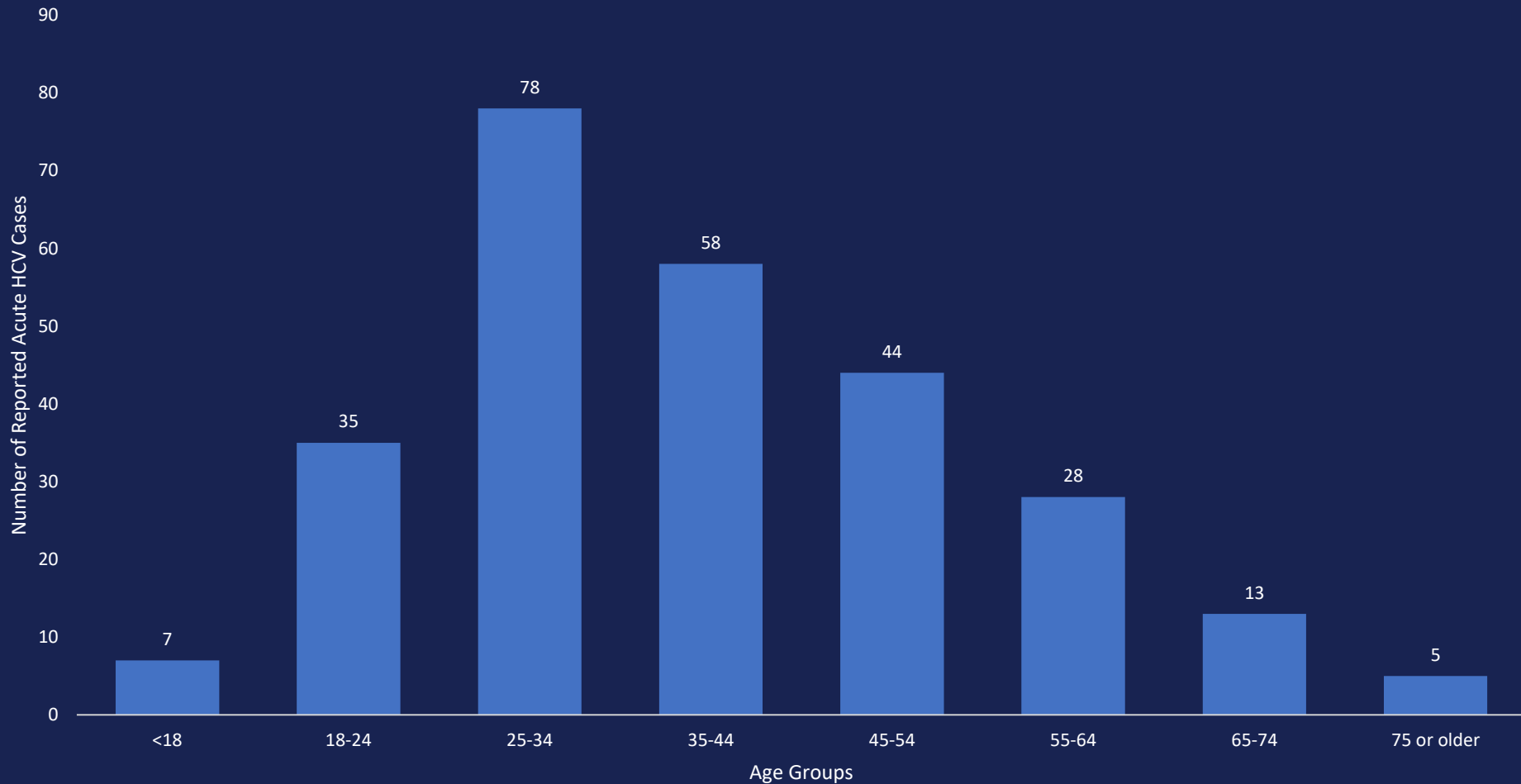


Proportion of acute HCV cases by age, 2014-2018



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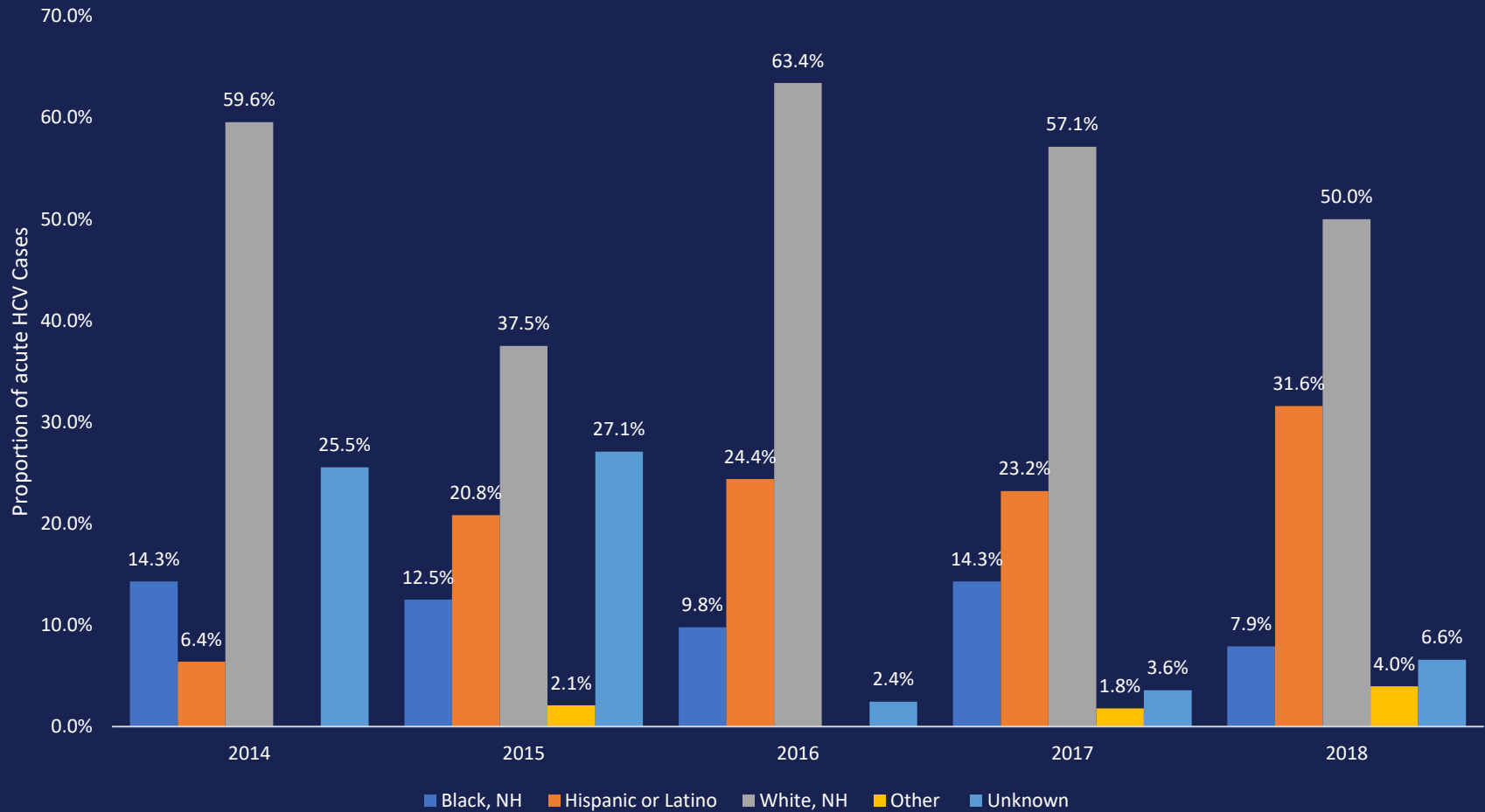


Proportion of acute HCV cases by race/ethnicity, 2014-2018



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Proportion of acute HCV cases by sex, 2014-2018



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HCV/HIV Coinfection

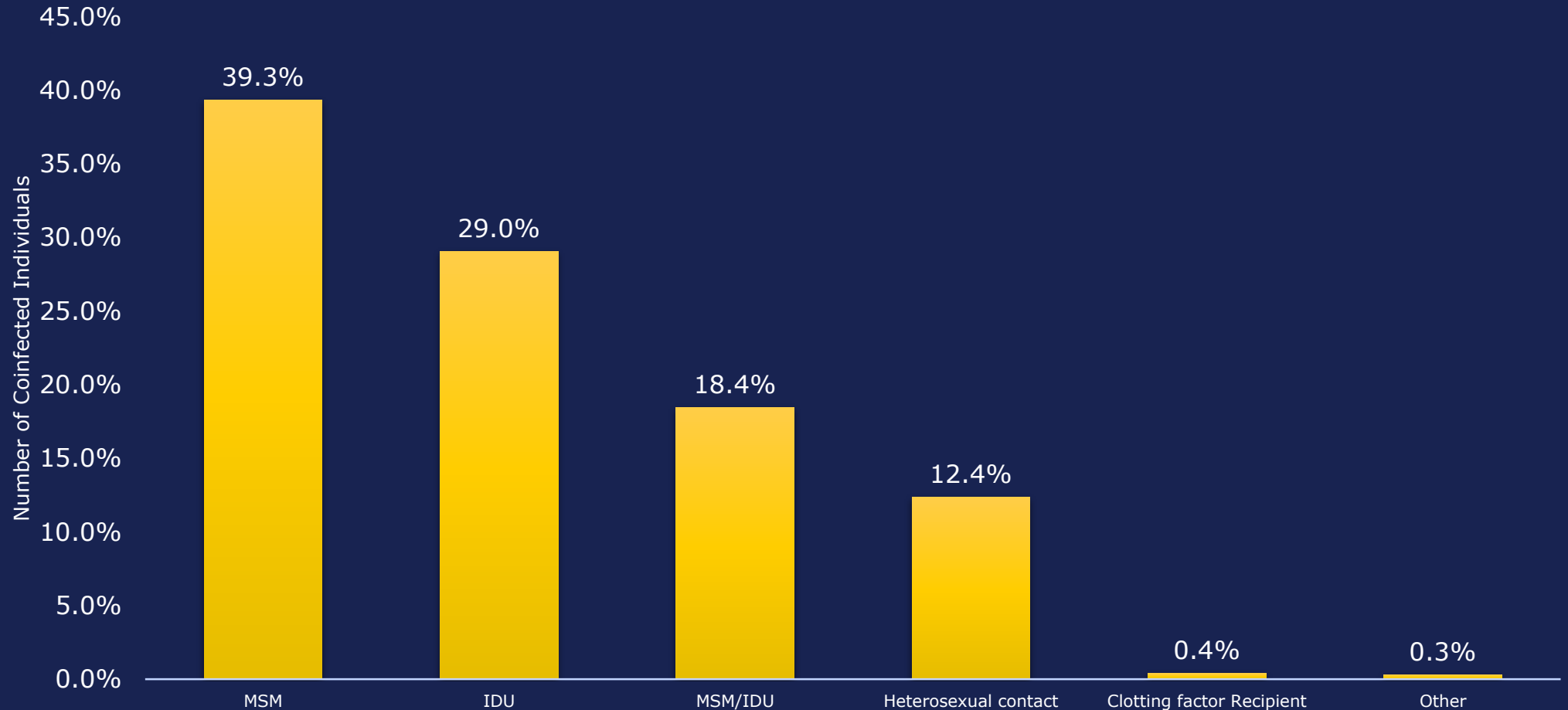
- Testing data matched to data from Texas eHARS (Electronic HIV/AIDS Reporting System)
- 5,947 unique matches between the HCV testing data and eHARS data were identified (2018)
- 4,494 persons diagnosed with both HCV and HIV and included in the analysis (2018)
 - Represents 5% of the 90,104 Texans living with a diagnosed HIV infection in 2018*
 - Similar to other studies (6.6% and 9.8%)
- Some HCV data not complete to match with eHARS

HCV/HIV co-infections by HIV transmission risk, 2014-2018



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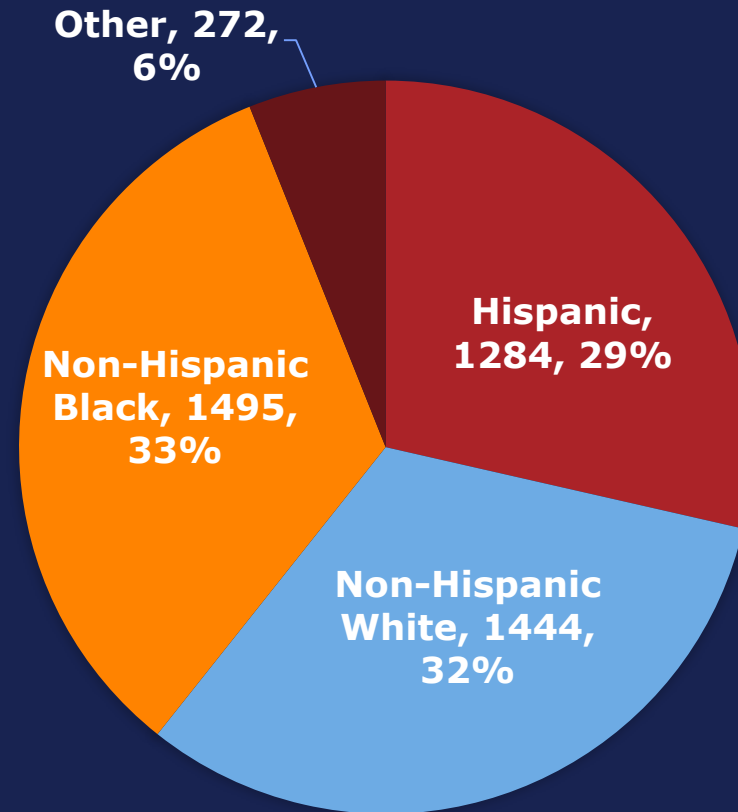


HCV/HIV co-infections by race/ethnicity, 2014-2018



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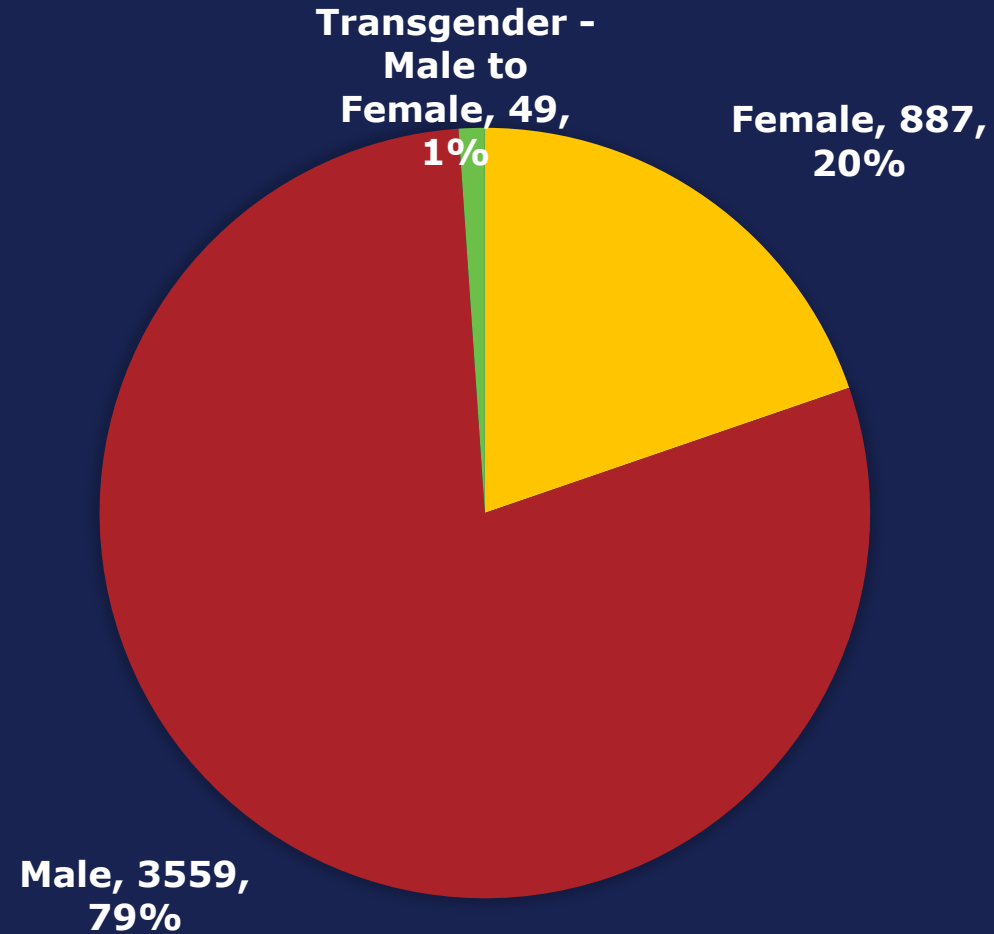
HCV/HIV co-infections by sex, 2014-2018



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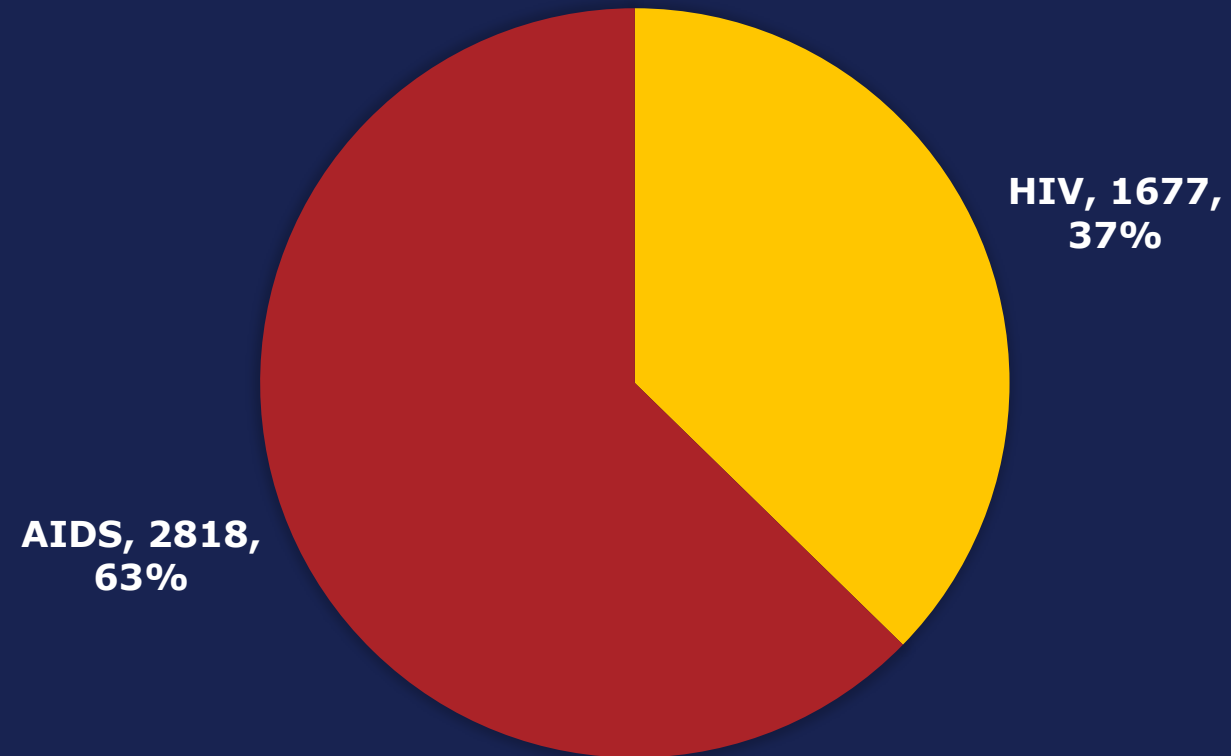
HCV/HIV co-infections, by HIV/AIDS diagnosis status, 2014-2018



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Hospitalizations

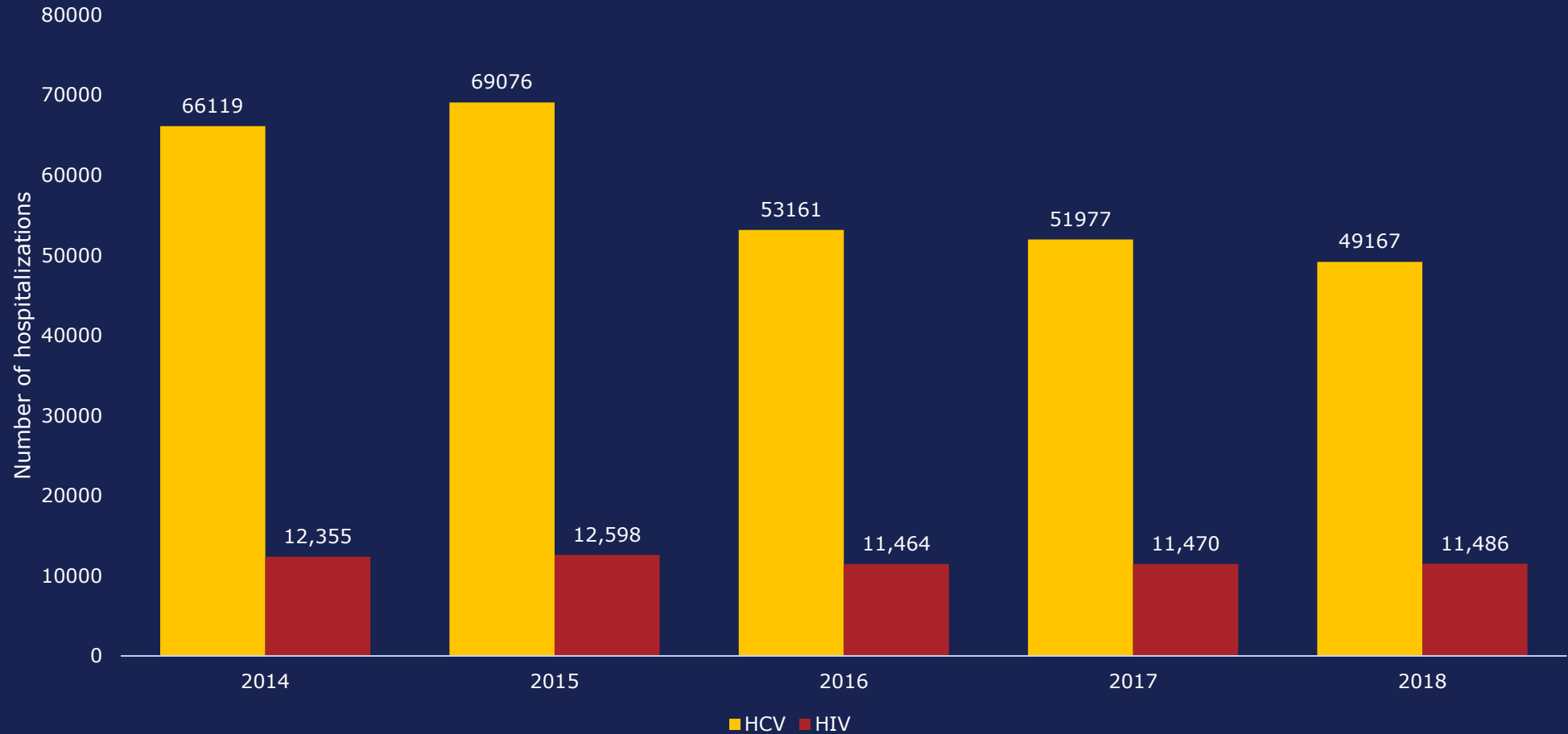
- Data from Texas Healthcare Information Collection (THIC)
- 289,500 hospitalizations had a HCV ICD-9 or ICD-10 code reported from 2014 to 2018
 - ICD-9 codes were used for data 2014-2015
 - ICD-10 codes were used for data 2016-2018
- People who had Texas residence at the time of their hospitalization

HCV-related hospitalizations vs HIV-related hospitalizations



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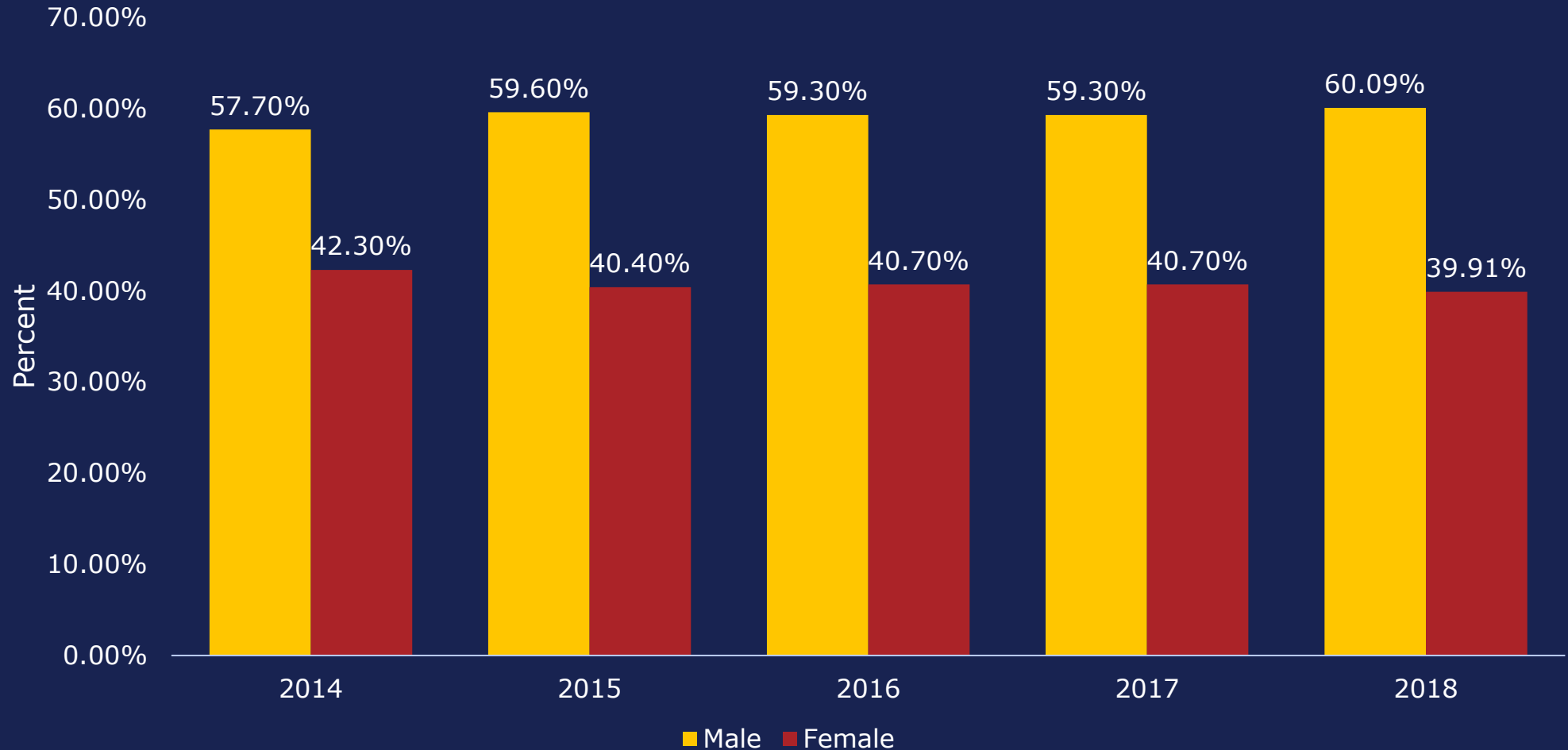


HCV-related hospitalizations by sex, 2014-2018



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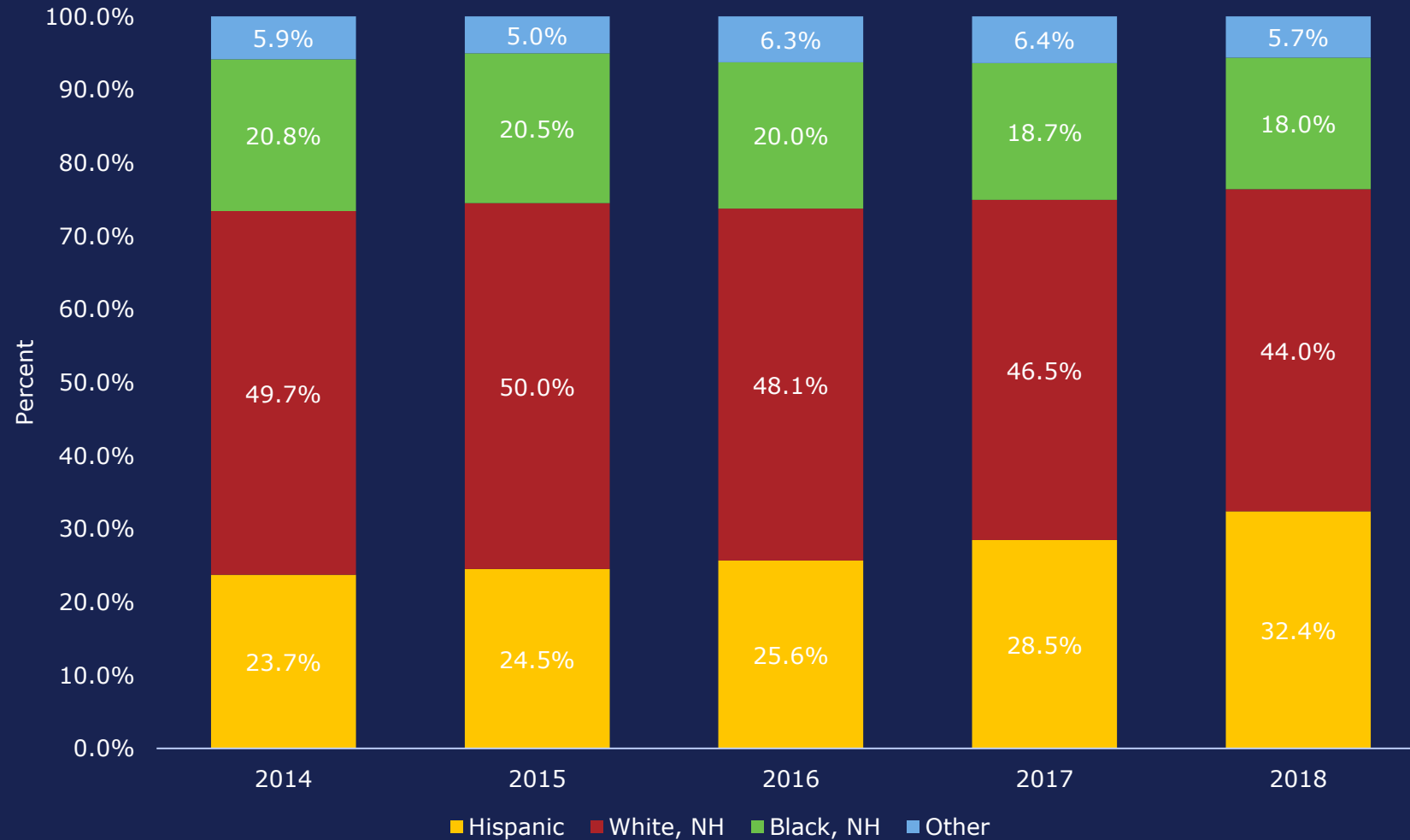


HCV-related hospitalizations by race/ethnicity, 2014-2018



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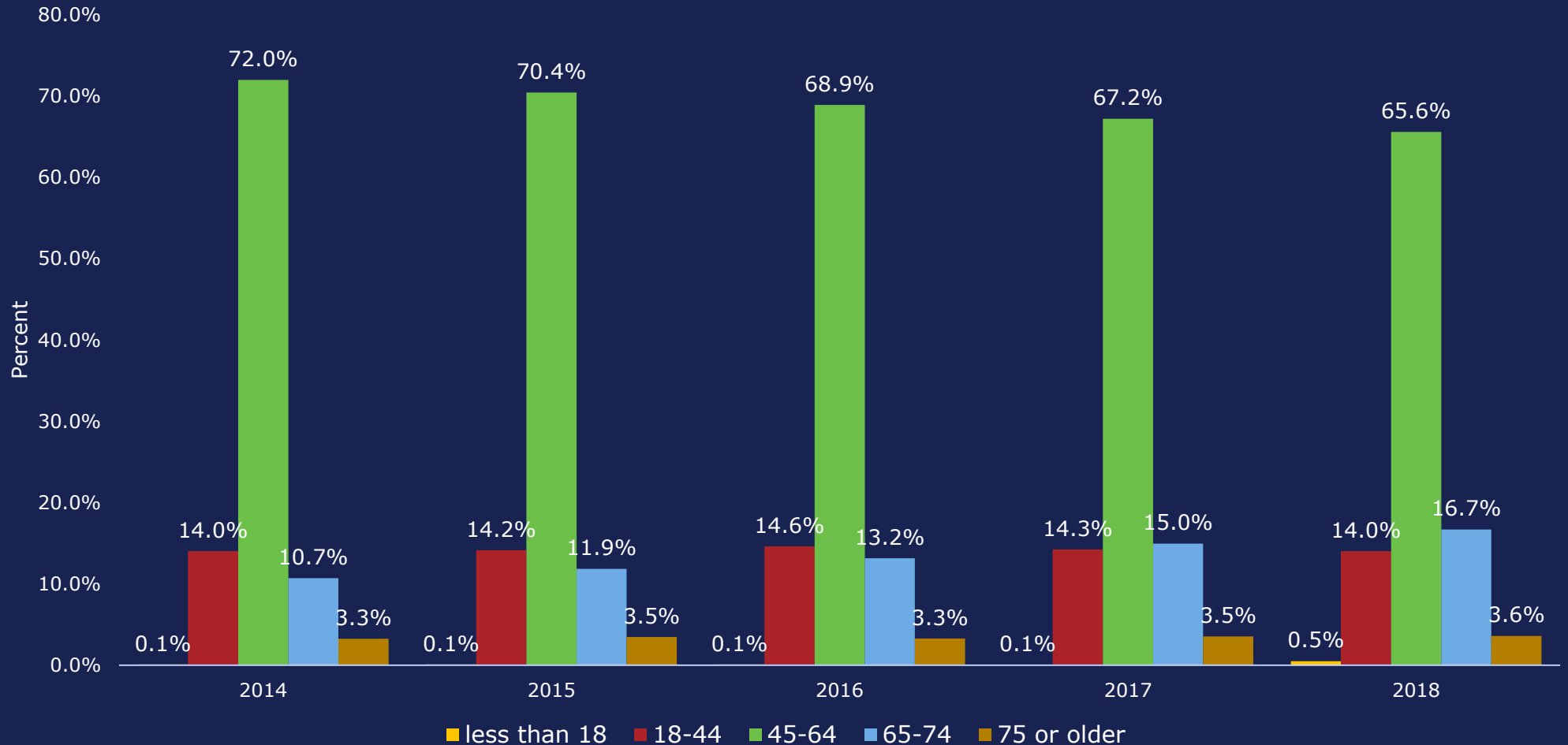


HCV-related hospitalizations by age, 2014-2018



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HCV Mortality



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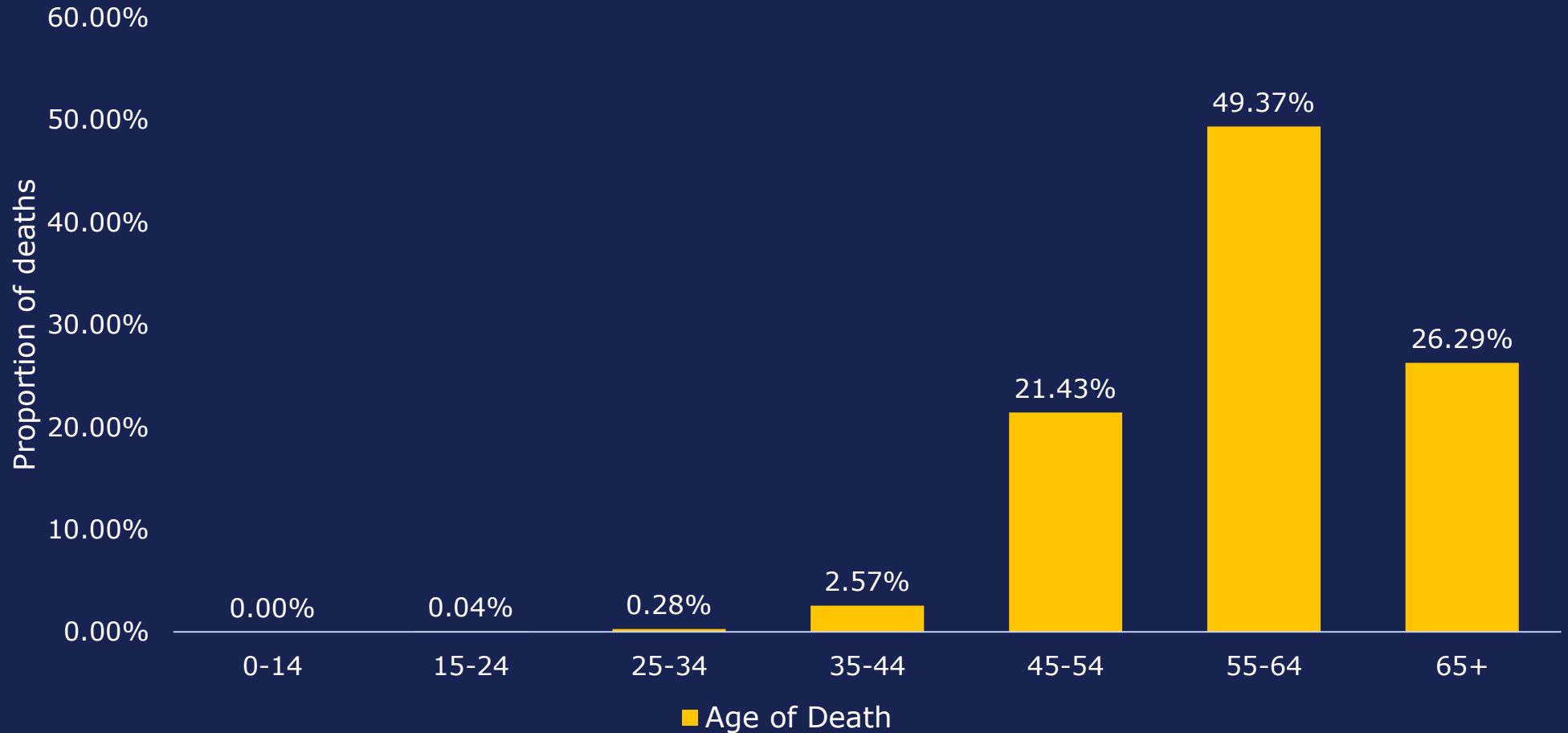
- Vital records death data
- 2,546 people had HCV reported as their underlying cause of death from 2014-2018
 - ~two-thirds were male
- 11,549 people had cancers known to be related to HCV reported as their underlying cause of death from 2014-2018

HCV as Underlying Cause of Death by Age at Death, 2014-2018



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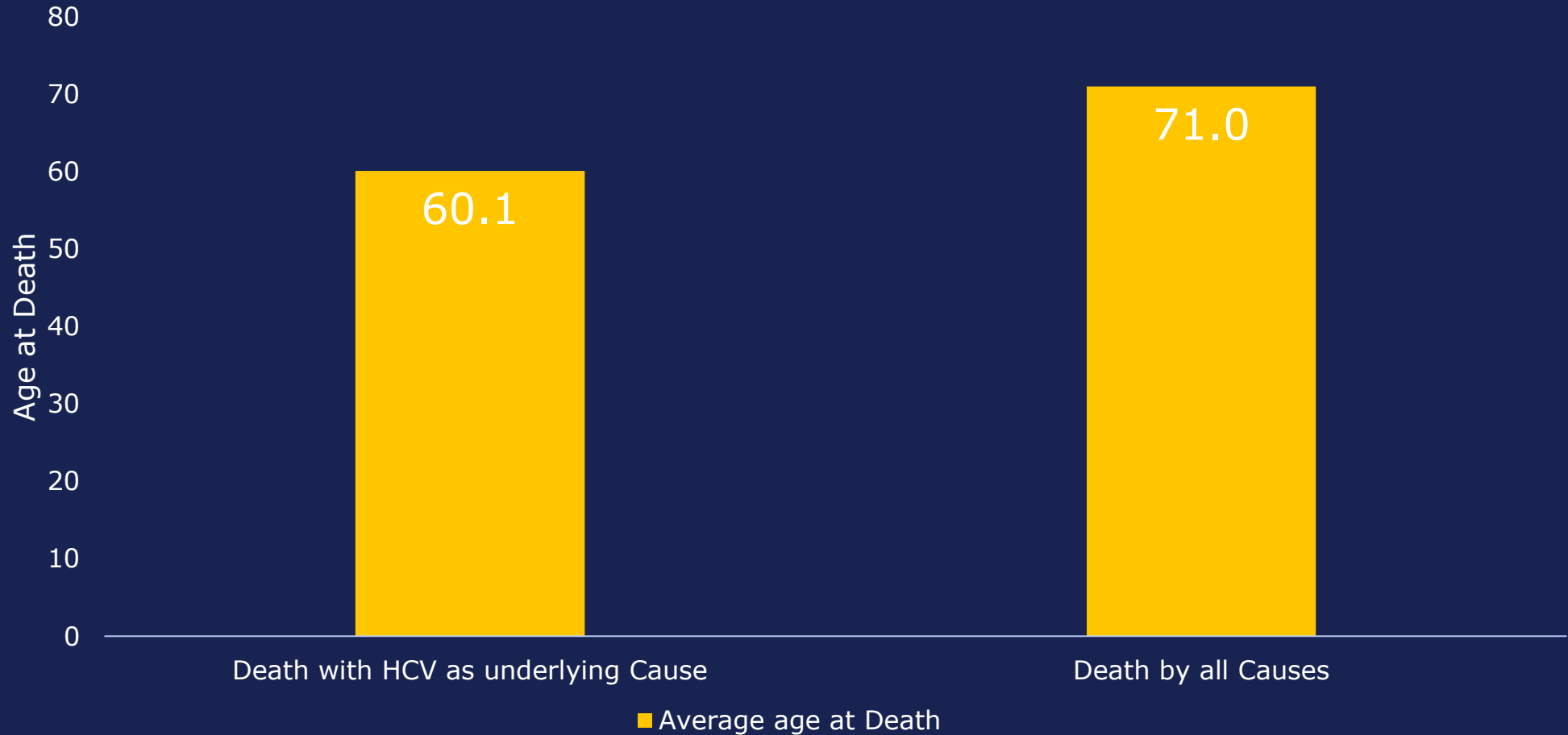




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Average Age at Death, 2014-2018

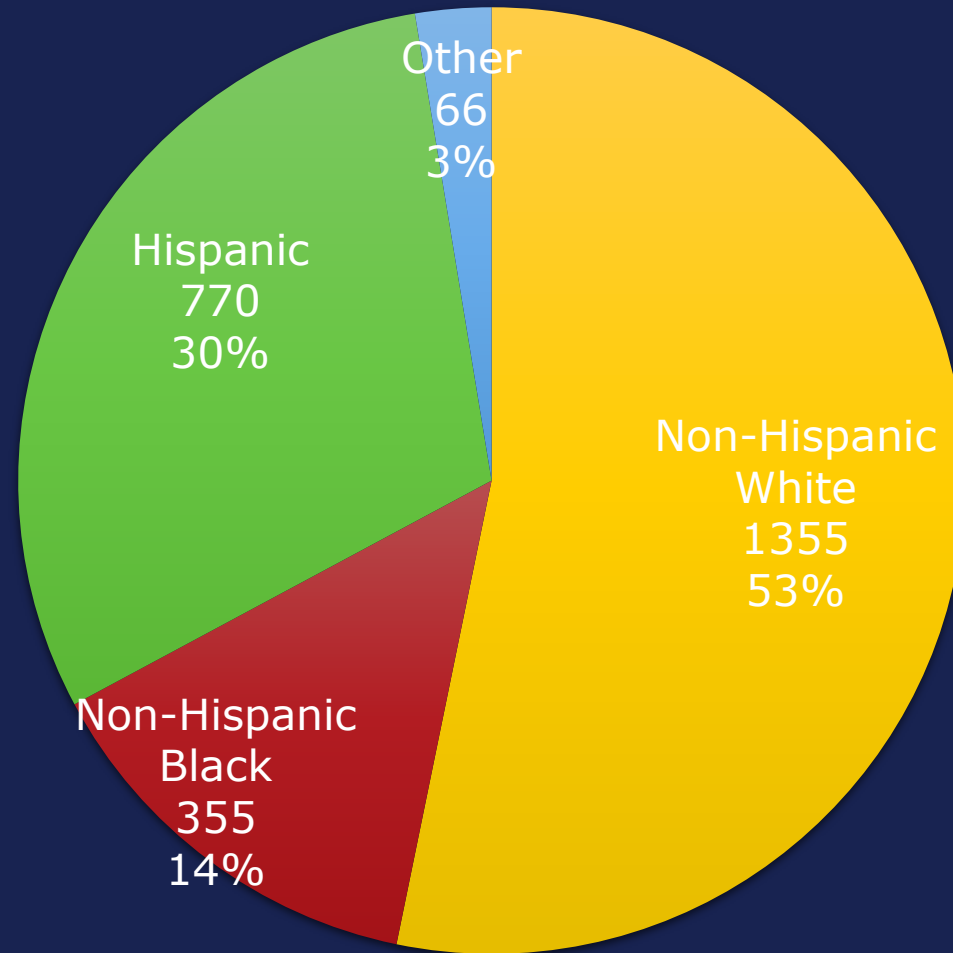


HCV as Underlying Cause of Death by Race/Ethnicity, 2014-2018



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Viral Hepatitis Prevention

Vittoria Criss, MS

**Viral Hepatitis Prevention
Coordinator**

Viral Hepatitis Prevention Program

Objectives

- Incorporate viral hepatitis prevention activities into existing public health, clinical care, and community settings.
- Educate the public, partners, and stakeholders on relevant policies including state-mandated hepatitis B and hepatitis C reporting, and public/private insurance reimbursement for recommended testing and treatment.
- Work with state agencies to improve hepatitis B and hepatitis C testing, detection, and linkage to care and treatment in all settings.
- Monitor and evaluate how policies impact testing, care, and treatment of hepatitis B and hepatitis C.



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Activities

Partner Sites

Offer rapid testing, confirmatory testing and linkage services

- HIV Prevention Contractors
- Substance use treatment facilities
- CBO/CHOs
- Student Run Clinics
- Immigrant Health Organizations



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Activities

Partner Sites

Offer rapid testing, confirmatory testing and linkage services

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Public Health Detailing

Provider Education

Advisory Body Participation/Stakeholder Engagement



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Integrated Viral Hepatitis Surveillance and Prevention Program - 2021

Priorities:

- Promote integration of prevention and surveillance activities
- Establish national viral hepatitis surveillance capacity
- Enhance surveillance and prevention activities
- Promote viral hepatitis elimination planning and enhance use of data to prioritize and evaluate viral hepatitis elimination initiatives
- Increase collaboration with stakeholders



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Additional Projects

- TACKLE HIV/HCV – UT Health San Antonio
 - Establish model of HCV screening and linkage to care and treatment including integration of substance use disorder (SUD)/ mental health services for People Living with HIV (PLWHIV) in Ryan White funded clinics in South Texas
 - Provide provider education and support for HIV/HCV co-infection and HCV mono-infection management and treatment by UT Health San Antonio Extension for Community Healthcare Outcomes (ECHO)
 - Education and screening for HIV/HCV in communities that are predominantly composed of people of color
 - Improve surveillance for acute and chronic HCV in PLWHIV
- Epi Profile/Disease Progression Model
- Opioid Vulnerability Assessment



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New CDC Recommendations for Hepatitis C Screening Among Adults in the United States

- 1. Universal hepatitis C screening:**
 - Hepatitis C screening at least once in a lifetime for **all adults** aged 18 years and older, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is less than 0.1%*
 - Hepatitis C screening for **all pregnant women during each pregnancy**, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is less than 0.1%*
- 2. One-time hepatitis C testing regardless of age or setting prevalence among people with recognized conditions or exposures**
- 3. Routine periodic testing for people with ongoing risk factors**, while risk factors persist:
 - People who currently inject drugs and share needles, syringes, or other drug preparation equipment
 - People with selected medical conditions
- 4. Any person who requests hepatitis C testing** should receive it, regardless of disclosure of risk, because many persons may be reluctant to disclose stigmatizing risks



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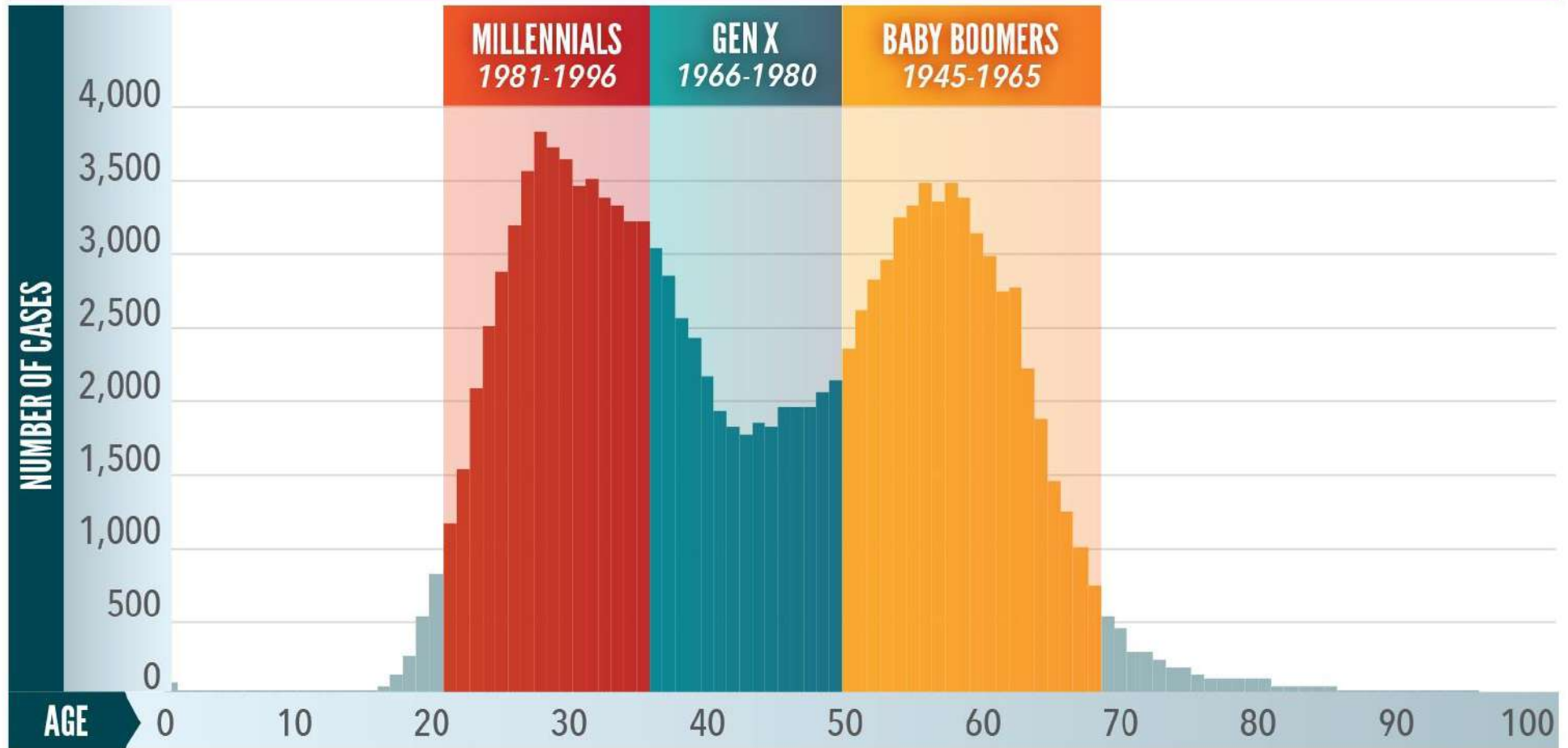
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New Reports of Chronic Hepatitis C High in Multiple Generations



SOURCE: National Notifiable Diseases Surveillance System, 2018



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WHO SHOULD GET TESTED FOR HEPATITIS C?

EVERY ADULT



At least once

**EVERY PREGNANT
WOMAN**



Every pregnancy

**EVERYONE WITH
RISK FACTORS**



Regularly

SOURCES: CDC Recommendations for Hepatitis C Screening, MMWR, April 2020
CDC Vital Signs, April 2020



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References

1. Rosenberg, E. S., Rosenthal, E. M., Hall, E. W., Barker, L., Hofmeister, M. G., Sullivan, P. S., ... Ryerson, A. B. (2018). Prevalence of Hepatitis C Virus Infection in US States and the District of Columbia, 2013 to 2016. *JAMA Network Open*, 1(8), e186371. <https://doi.org/10.1001/jamanetworkopen.2018.6371>
2. Ly, K. N., Hughes, E. M., Jiles, R. B., & Holmberg, S. D. (2016). Rising mortality associated with Hepatitis C virus in the United States, 2003-2013. *Clinical Infectious Diseases*, 62(10), 1287-1288. <https://doi.org/10.1093/cid/ciw111>
3. National Center for HIV/AIDS, Viral Hepatitis, STD and TP. *HIV and Viral Hepatitis.*; 2017.

Questions?



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Treatments can
cure hepatitis C.



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Centers for Disease
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cdc.gov/knowmorehepatitis

