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of Health**

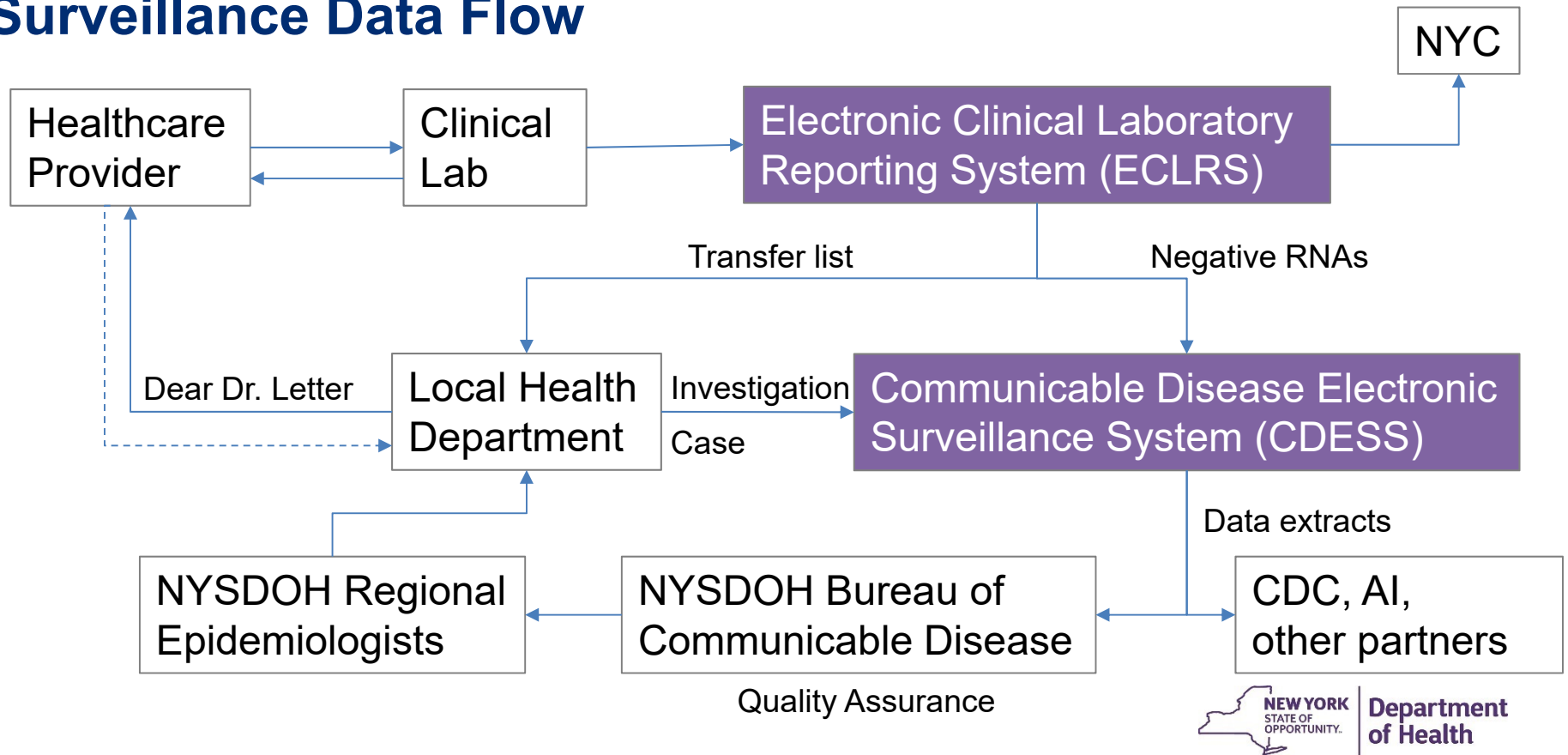
Hepatitis C Epidemiology in New York State 2017

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Hepatitis C Surveillance in NYSDOH

- Hepatitis C is laboratory- and provider-reportable
 - Transfer of electronic lab reports creates >97% of cases (<3% manual entry)
 - ~153,000 lab reports during 2017
 - Negative HCV RNA results lab-reportable statewide since 2016
- Home Rule: Local Health Departments have primary responsibility for follow-up
 - LHDs create investigations/cases
 - Tools include Dear Doctor Letter (DDL), phone interview, medical record review, etc.
 - NYSDOH staff review reports for accuracy
- “Baby Boomer” testing law since 2014

Surveillance Data Flow



Case Classification (2016 → Present)

- **Acute**

- Must have
 - Discrete onset of clinically compatible symptoms with either jaundice or ALT>200
Or documented test conversion (any negative → any positive) within 12 months
 - No previous case
- Confirmed: positive RNA test, or test conversion
- Probable: positive antibody test

- **Chronic**

- Must not be acute
- Confirmed: positive RNA test
- Probable: positive antibody test and no RNA test
- Ab+ and RNA-: *positive antibody test and negative RNA test (within 6 mo)*
 - *Specific to NYS*



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Data notes

- Case data is dynamic – cases never close
 - Data as of Aug 2, 2018
- Data presented is from NYS excluding NYC
- Data represents newly reported cases, not incidence (new infections) nor prevalence (current infections)
- Cases are Confirmed and Probable unless otherwise noted

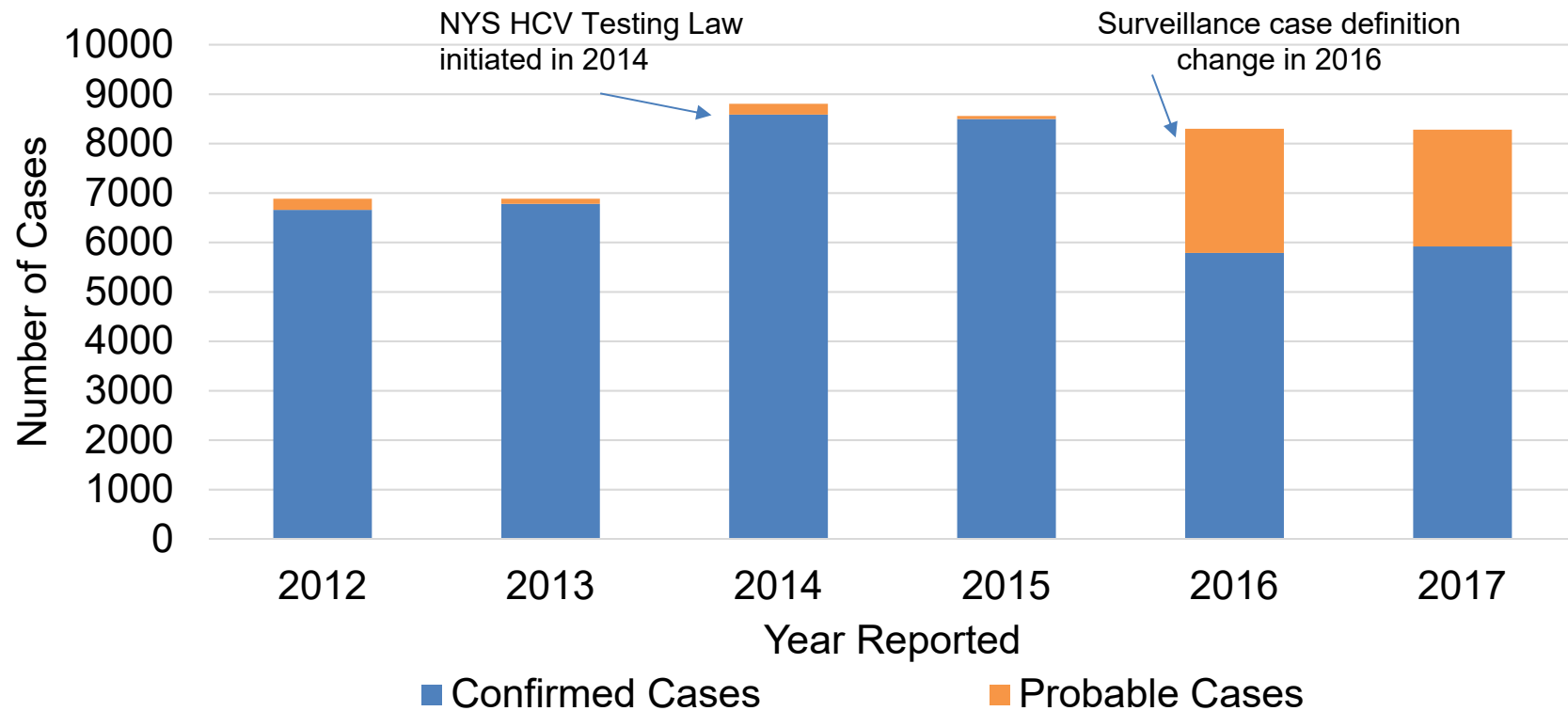
Hepatitis C – Demographic Summary

Newly Reported Cases, 2017

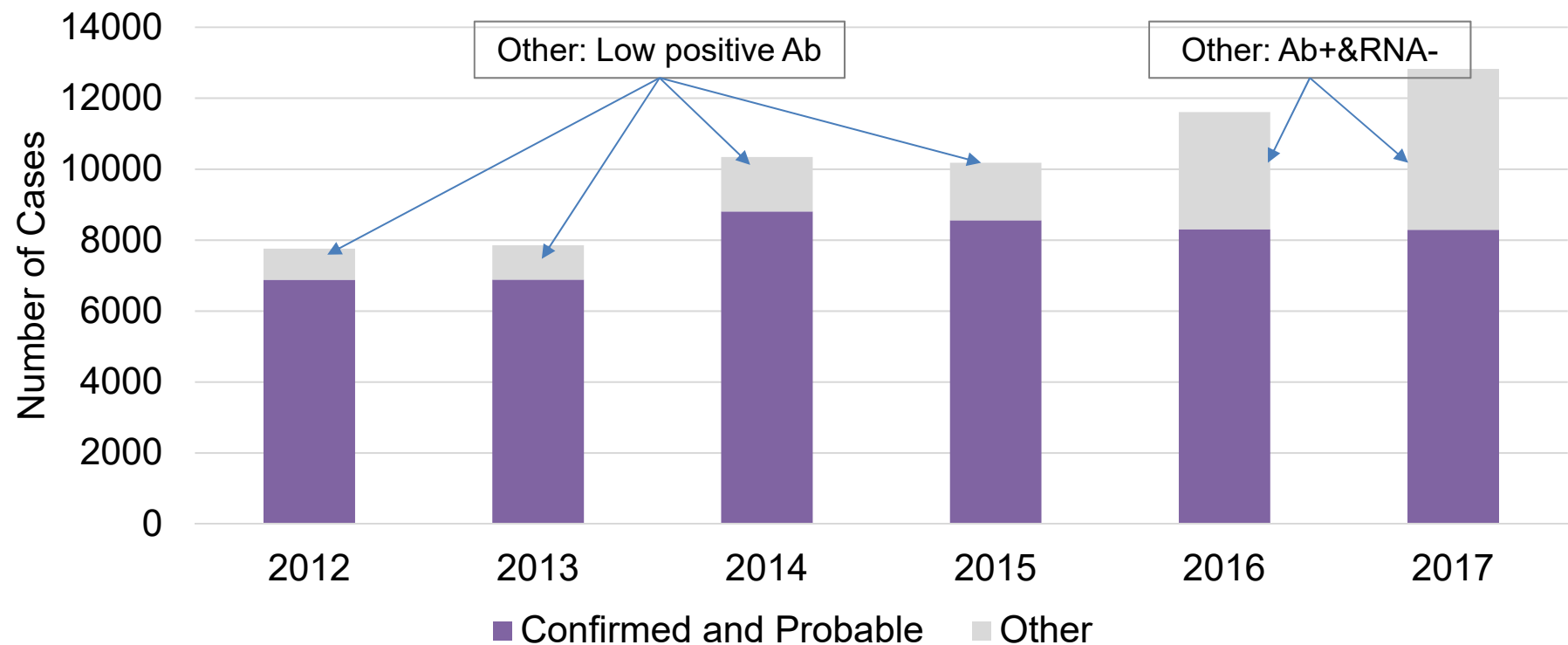
- 8280 cases
– 73.9 / 100,000
- 201 acute cases (2%)
- 8079 chronic cases (98%)
- Males 61% total cases
- 20-29 years of age
– 147.1 / 100,000
- Baby Boomers: age 52-72
– 88.6 / 100,000

	Female		Male		Total	
	Number of Cases	Rate Per 100,000 pop.	Number of Cases	Rate Per 100,000 pop.	Number of Cases	Rate Per 100,000 pop.
Total	3231	56.7	5039	91.4	8280	73.9
Acute	96	1.7	105	1.9	201	1.8
Chronic	3135	55.0	4934	89.5	8079	72.1
Age Group (years)						
0-19	92	7.0	62	4.5	154	5.7
20-29	961	132.0	1245	160.7	2210	147.1
30-39	708	109.2	1110	169.0	1820	139.4
40-49	343	48.4	635	91.7	979	69.9
50-59	476	55.4	851	103.2	1328	78.8
60-69	453	64.9	890	137.0	1344	99.7
70+	195	26.7	241	45.7	437	34.8
Unknown	3	NA	5	NA	8	NA

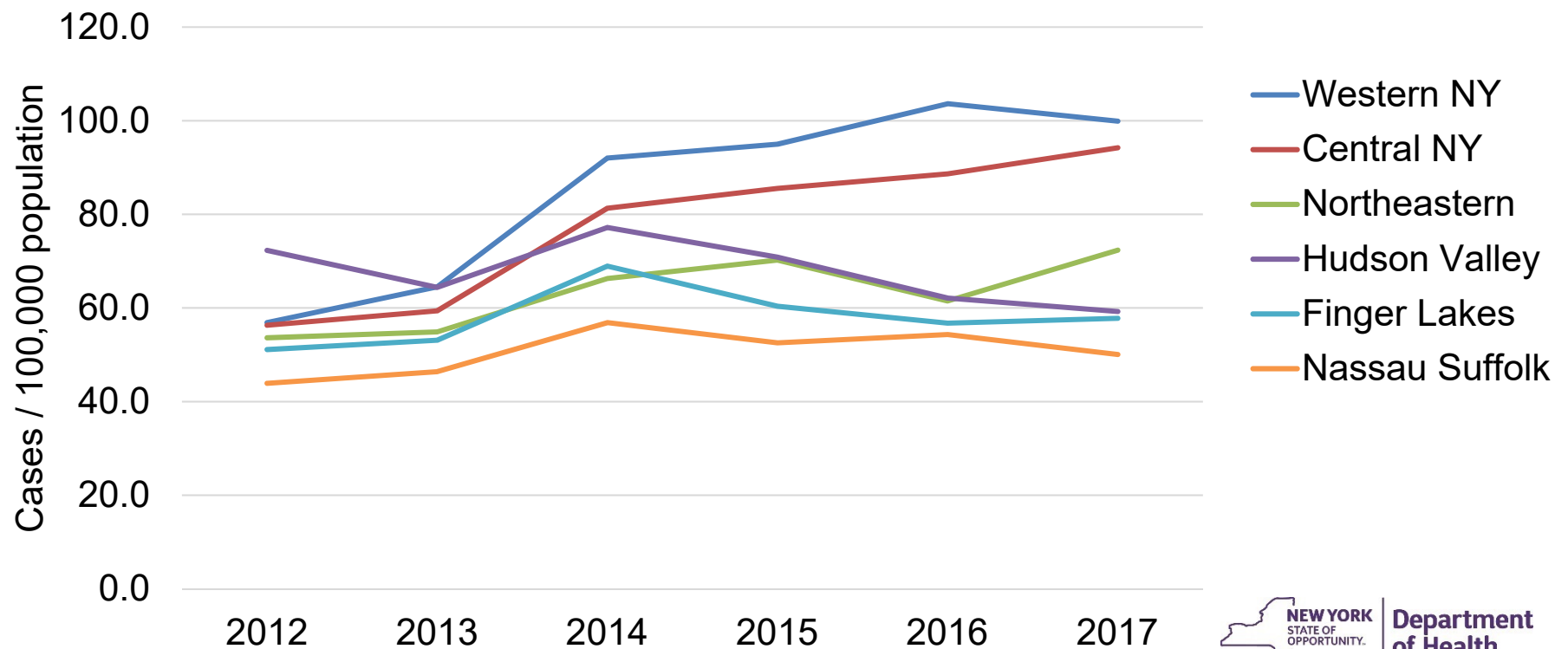
Acute and Chronic Hepatitis C – Newly Reported Cases, 2012-2017



Acute and Chronic Hepatitis C – Newly Reported Cases by Reporting Status, 2012-2017



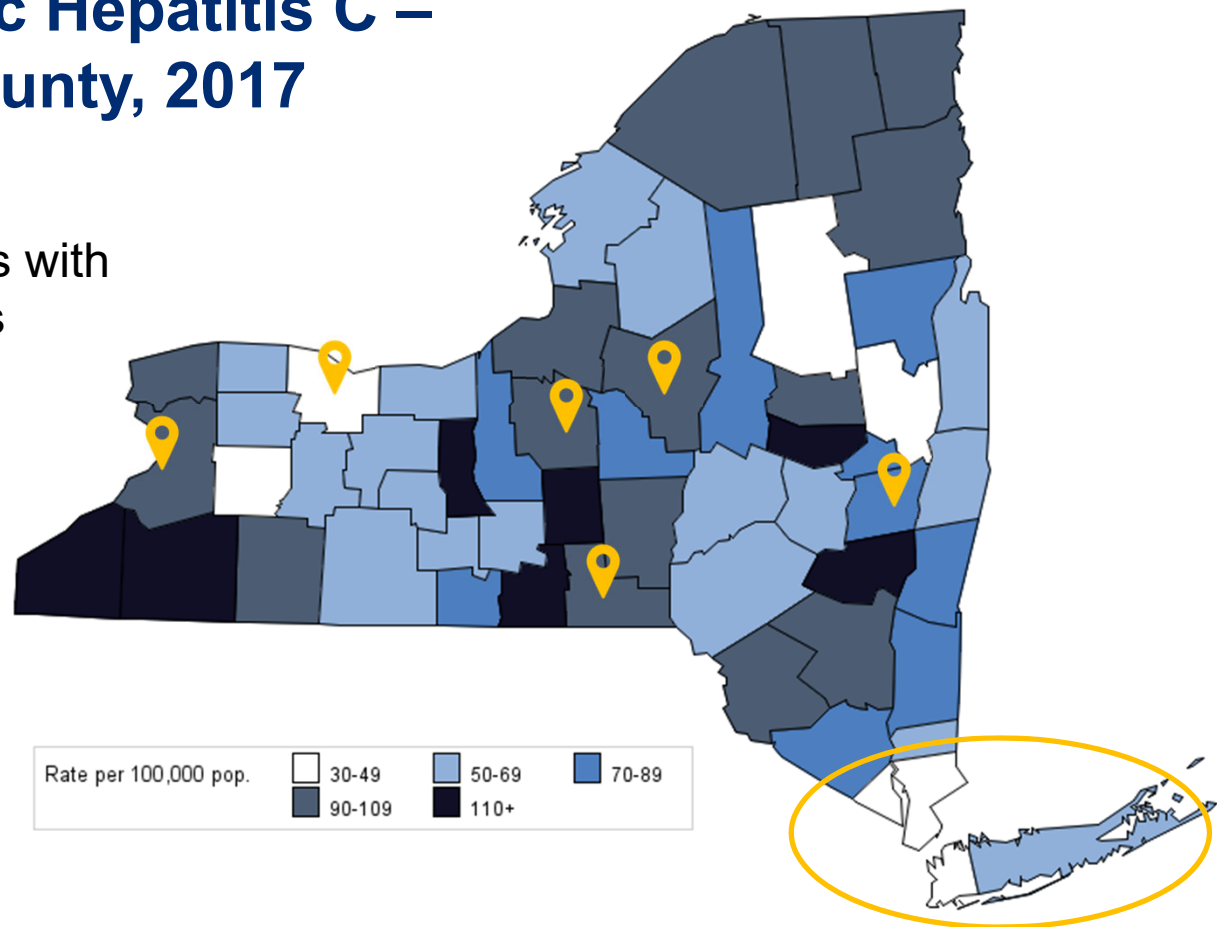
Acute and Chronic Hepatitis C – Newly Reported Cases by Ryan White Region, 2012-2017



State inmates excluded

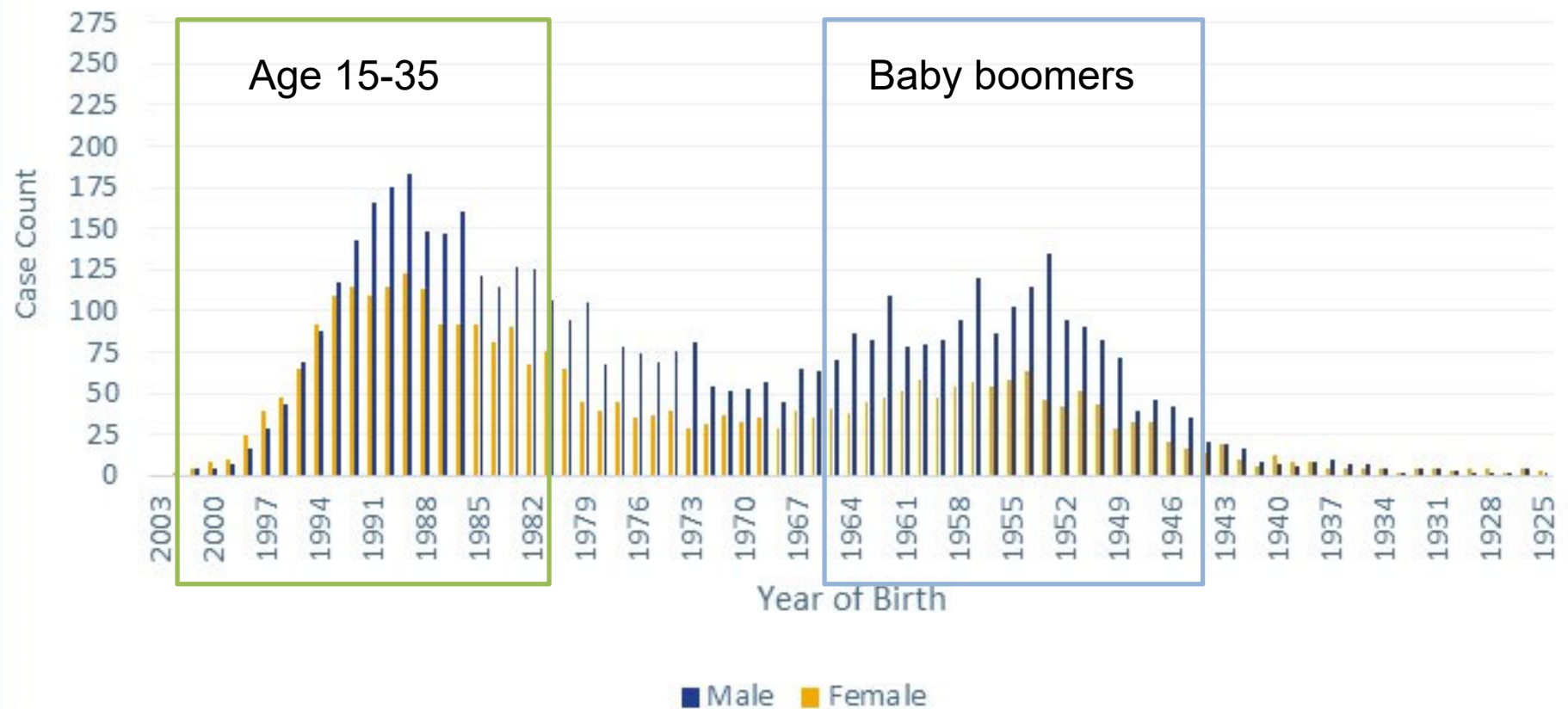
Acute and Chronic Hepatitis C – Case Rates by County, 2017

Yellow markers: places with
the largest populations



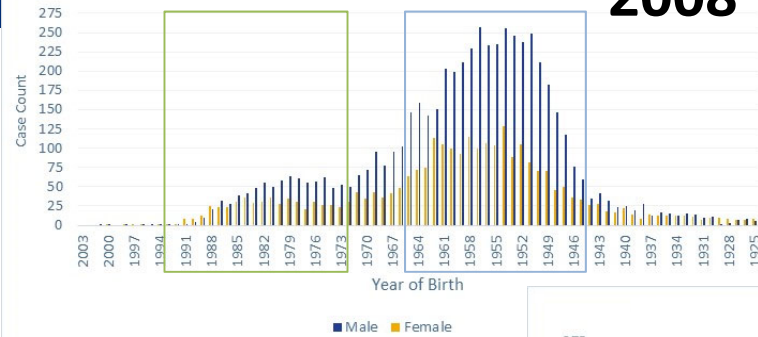
State inmates excluded

Age Distribution of Newly Reported Cases, 2017

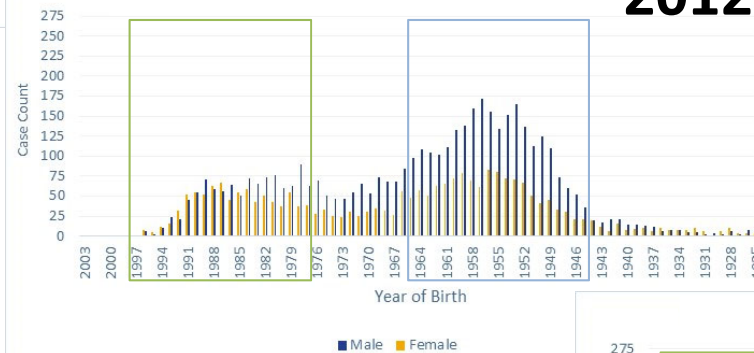


Changing Age Distribution

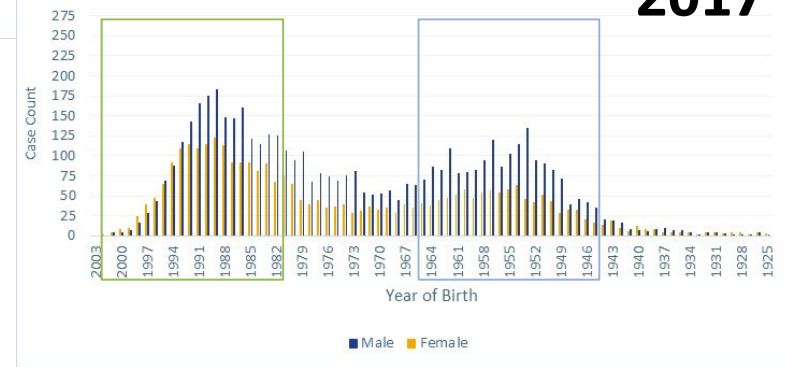
2008



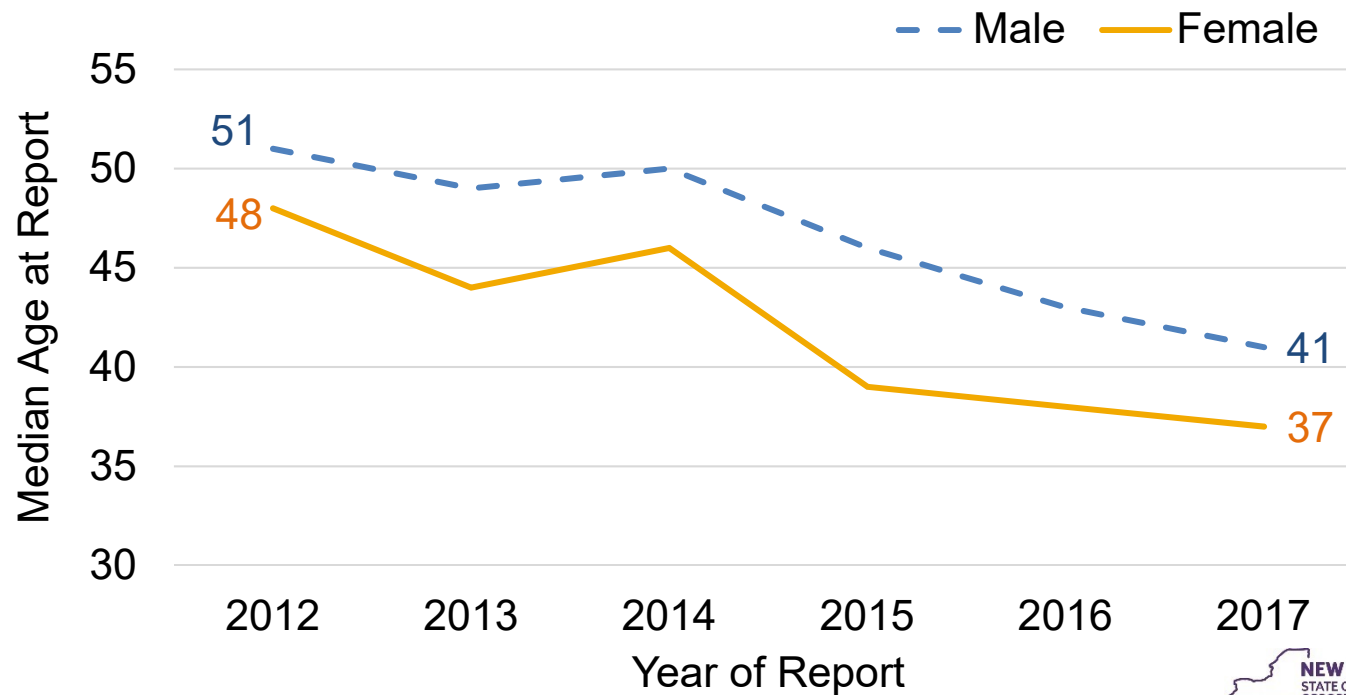
2012



2017

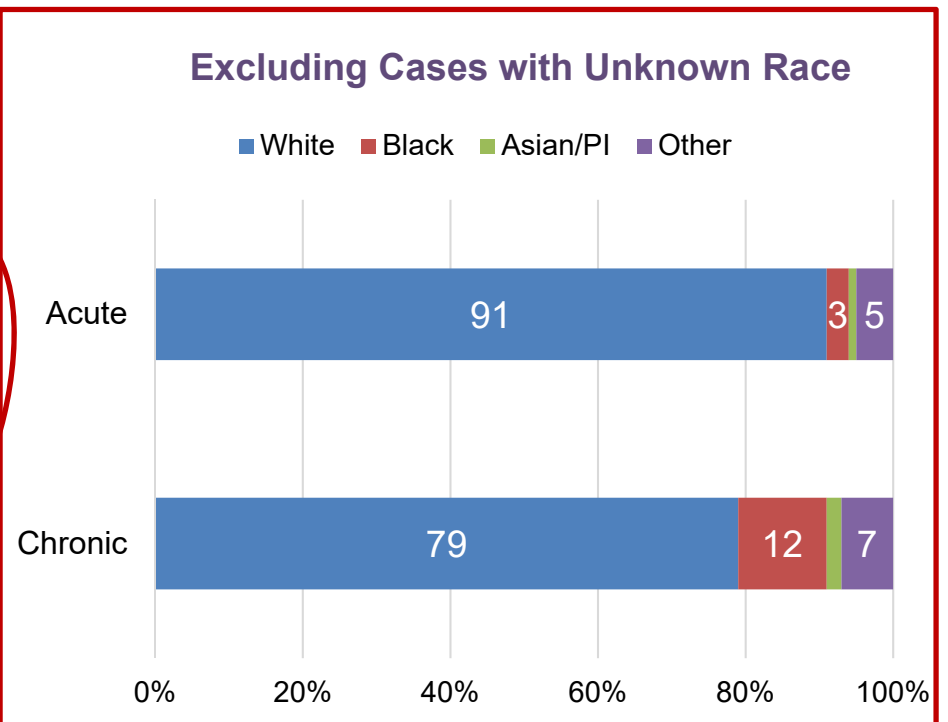
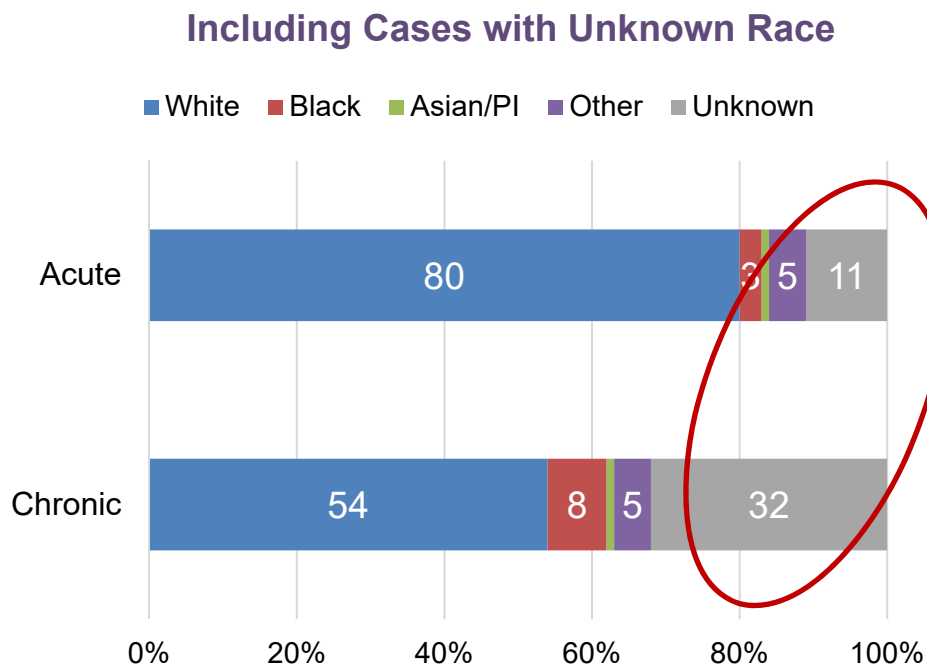


Acute and Chronic Hepatitis C – Median Age at Report, 2012-2017



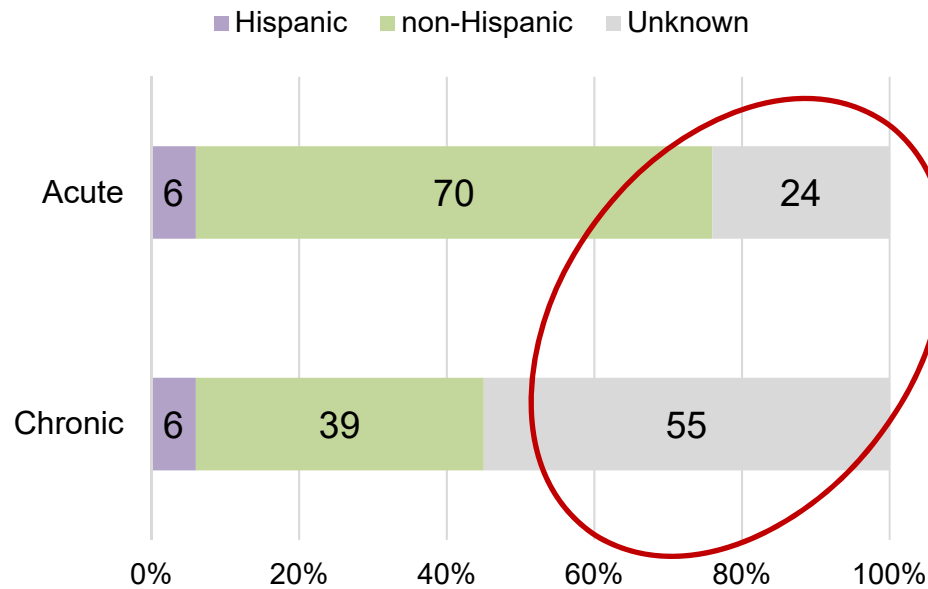
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Race Distribution, 2017

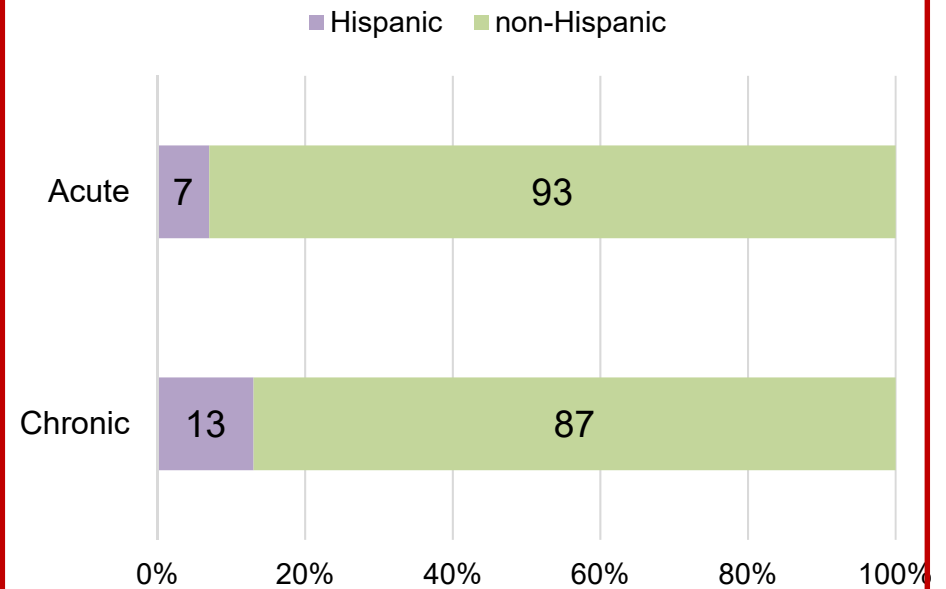


Ethnicity Distribution, 2017

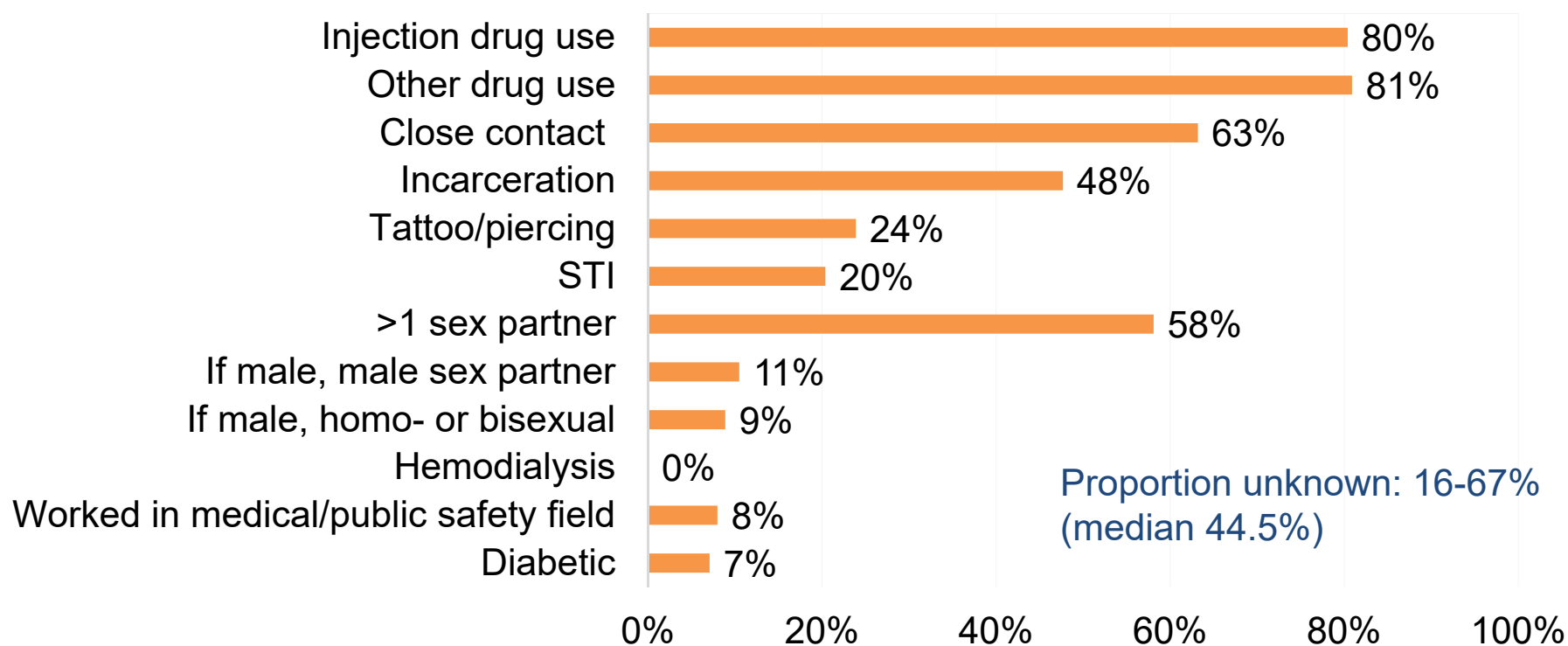
Including Cases with Unknown Ethnicity



Excluding Cases with Unknown Ethnicity

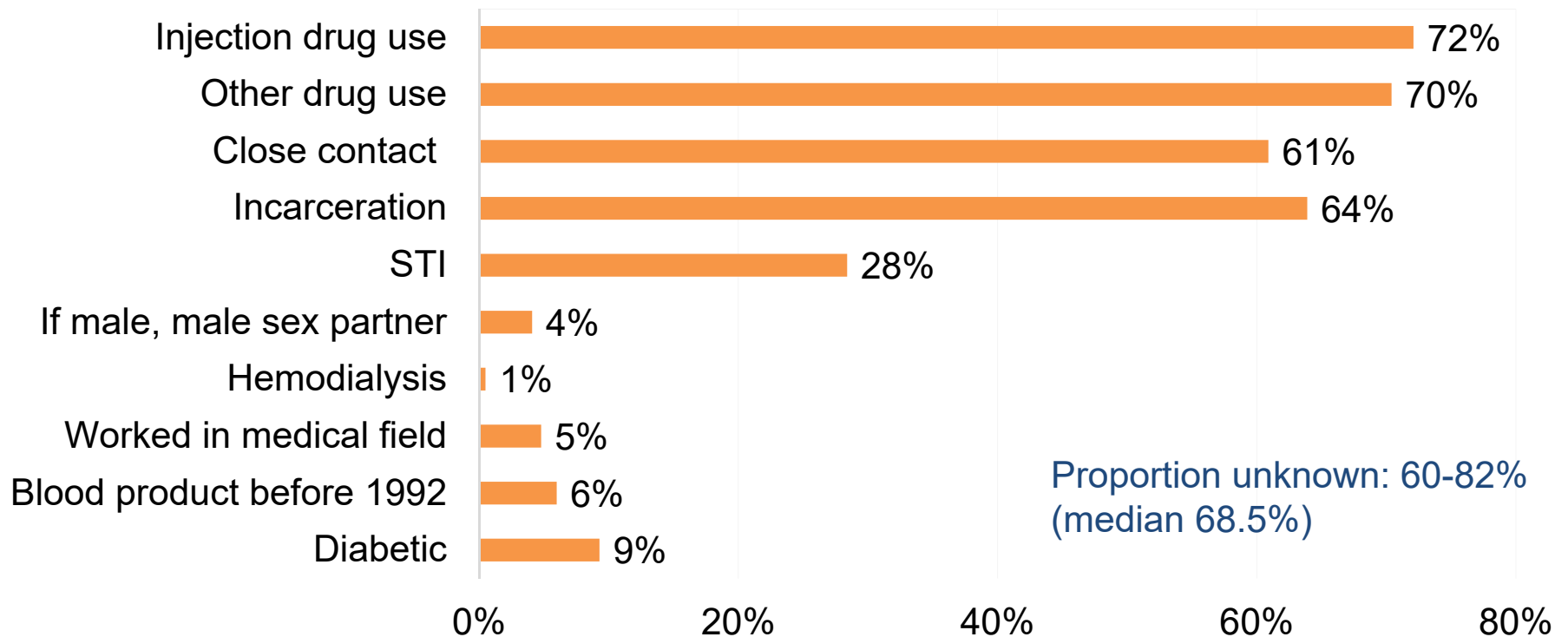


Acute Hepatitis C Risk Factors*, Where Reported (Unknowns Removed), 2017



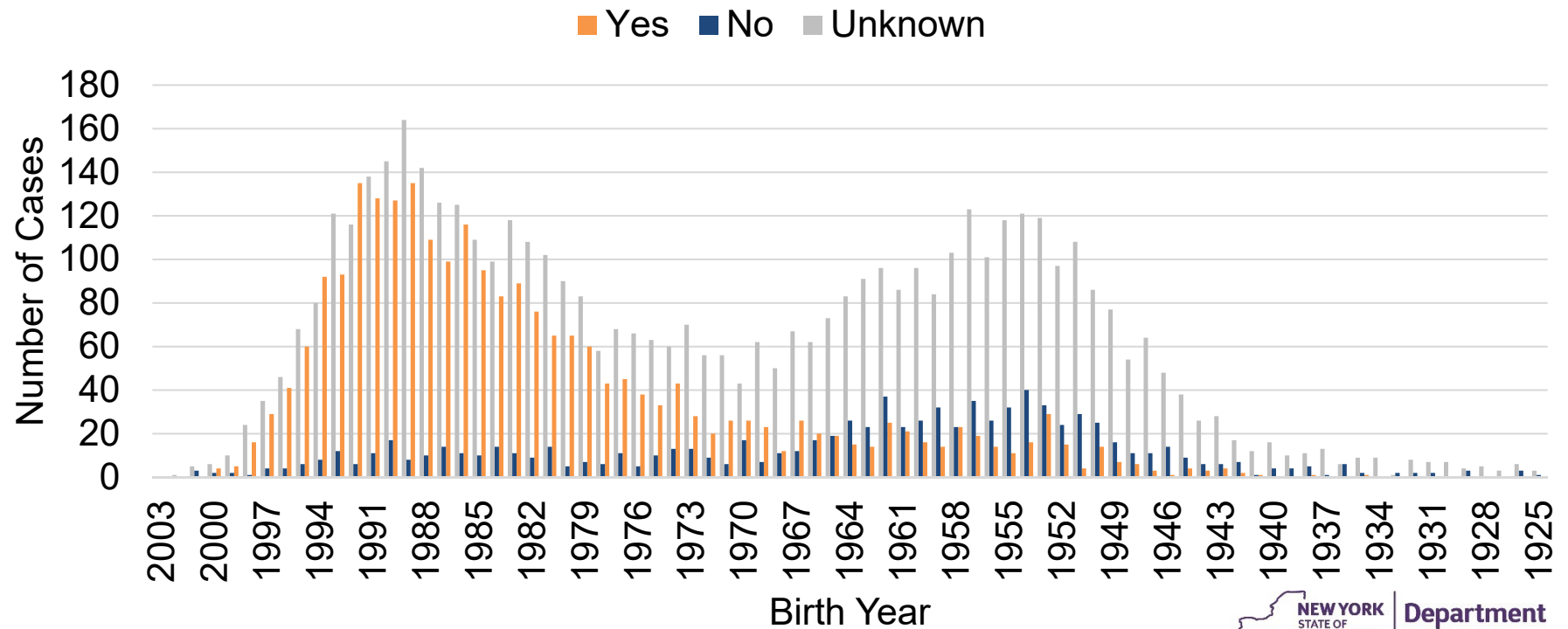
* During the previous 6 months

Chronic Hepatitis C Risk Factors*, Where Reported (Unknowns Removed), 2017



* During the patient's lifetime

Acute and Chronic Hepatitis C – Injection Drug Use by Birth Year, 2017



Summary

- Difficult to discern recent trends of newly reported cases
 - 2014 testing law
 - 2016 case definition change
 - However, median age declining
 - Decreases among baby boomers
(more robust screening? Fewer baby boomers?)
 - Increases among young adults, IDU
- Predominately young, male, white, non-Hispanic
- Large amount of missing data for race, ethnicity, and risk factors
- Most commonly reported risk factors are IDU, non-IDU, close contact, incarceration, multiple sex partners (acute)



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Surveillance Improvements

- Hepatitis C prevalence estimate
 - SUNY Albany School of Public Health
- Enhance CDESS to better meet surveillance needs
 - Better tracking of patients longitudinally
 - Better deduplication of patients
 - More automation to reduce LHD work burden
 - More useful for tracking DOCCS inmates
- Expand gathering of clinical and risk details through medical records review
- Spatial analysis for hepatitis clusters
- Local Health Department training and feedback