

Chronic Hepatitis C Infections in California

Cases Newly Reported through 2016

December 2018

Office of Viral Hepatitis Prevention
California Department of Public Health, STD Control Branch

Chronic Hepatitis C, California, 2016

Slide Set Notes

- Data presented in these slides describe cumulative cases of chronic hepatitis C newly reported to CDPH from 1994-2016. **Findings for the most recent three-year period (2014-2016) are highlighted** to minimize the chance that an increase in case reports is due to the initiation of statewide electronic laboratory reporting (ELR) and auto processing of ELR hepatitis C data of data in October and December, 2013, respectively.
- **Data presented in these slides do not measure prevalence or incidence of chronic hepatitis C virus infections in California** due to the asymptomatic nature of these infections, varied levels of completeness of surveillance reporting, and because it remains unknown how many of the cases described are currently living.

Chronic Hepatitis C, California, 2016

Slide Set Notes (*continued*)

- **These data reflect a change in CSTE/CDC case definition for chronic hepatitis C in 2016.** This change resulted in fewer cases with criteria to be classified as confirmed in 2016 compared to previous reporting years. Cases reported in 2012-2015 could be classified as confirmed with only a positive antibody result value above a certain threshold. In 2016, such cases were considered probable and HCV RNA detection was necessary for confirmation. Cases in this report were classified based on the case definition current at the time of the case report.

Chronic Hepatitis C, California, 2016

Slide Set Notes (*continued*)

- Percentages, rather than rates, were used to describe newly reported cases for which race/ethnicity is known, since **race/ethnicity information was not reported for two-thirds of chronic hepatitis C cases** (66 percent) during 2014-2016. Race/ethnicity data should be interpreted with caution.
- Race/ethnicity was categorized as: American Indian/Alaska Native, Asian/Pacific Islander, African American/Black, Hispanic/Latino, White, and Multi-race/Other Race. For the purposes of this slide set, Hispanic/Latino encompasses patients of Hispanic or Latino ethnicity, regardless of reported race; all other race categories presented do not include persons of Hispanic or Latino ethnicity.

Chronic Hepatitis C, California, 2016

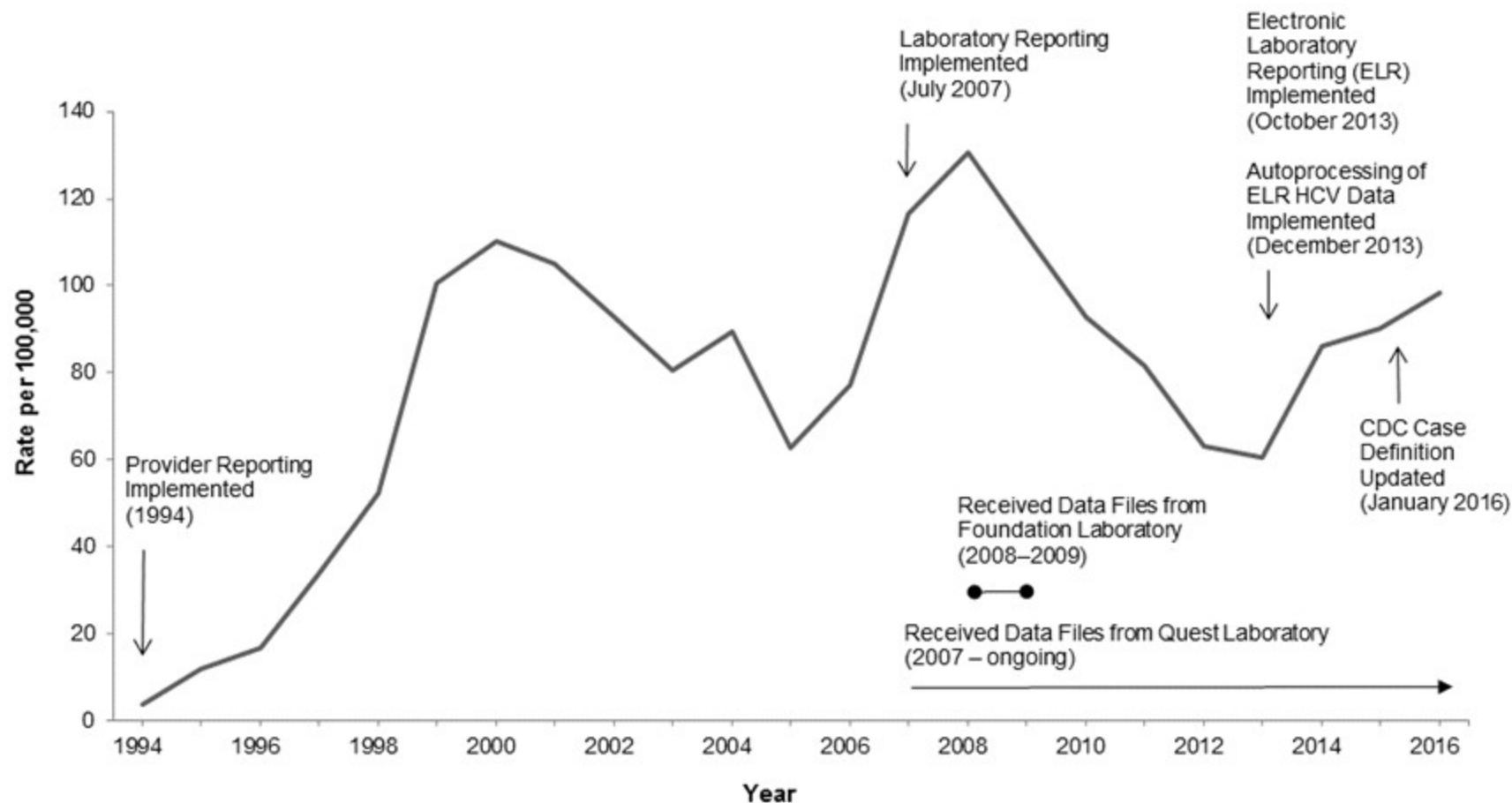
Slide Set Notes (*continued*)

- **These data are more complete for HCV-related tests reported by selected labs.** Prior to the implementation of electronic laboratory reporting (ELR) in the California Reportable Disease Information Exchange (CalREDIE)* in October 2013, CDPH received line-listed laboratory data from only two laboratories, Quest and Foundation, and not from other laboratory sources. Quest and Foundation laboratories served the state prison system for some or all of the years between 2007 and 2016. Thus the data presented in this report provide a more complete picture of hepatitis C cases reported by Quest and Foundation laboratories than by other laboratories and a more complete picture of chronic hepatitis C cases in state prisons than in the state overall.
- **Individuals with chronic hepatitis C infection who were incarcerated in state prisons at the time of their first confirmed hepatitis case report are not attributed to the local health jurisdiction in which they were incarcerated.** This is because people are often incarcerated in a different county than the one in which they would reside were they not incarcerated. In order to avoid overestimating the burden of disease in (often rural) counties with state prisons, chronic hepatitis C cases reported from state prisons were attributed to the state prison system at large. Accordingly, HCV data are presented in two sections—the first for the entire state (which includes cases in state prisons), and the second for hepatitis C cases in state prisons only.

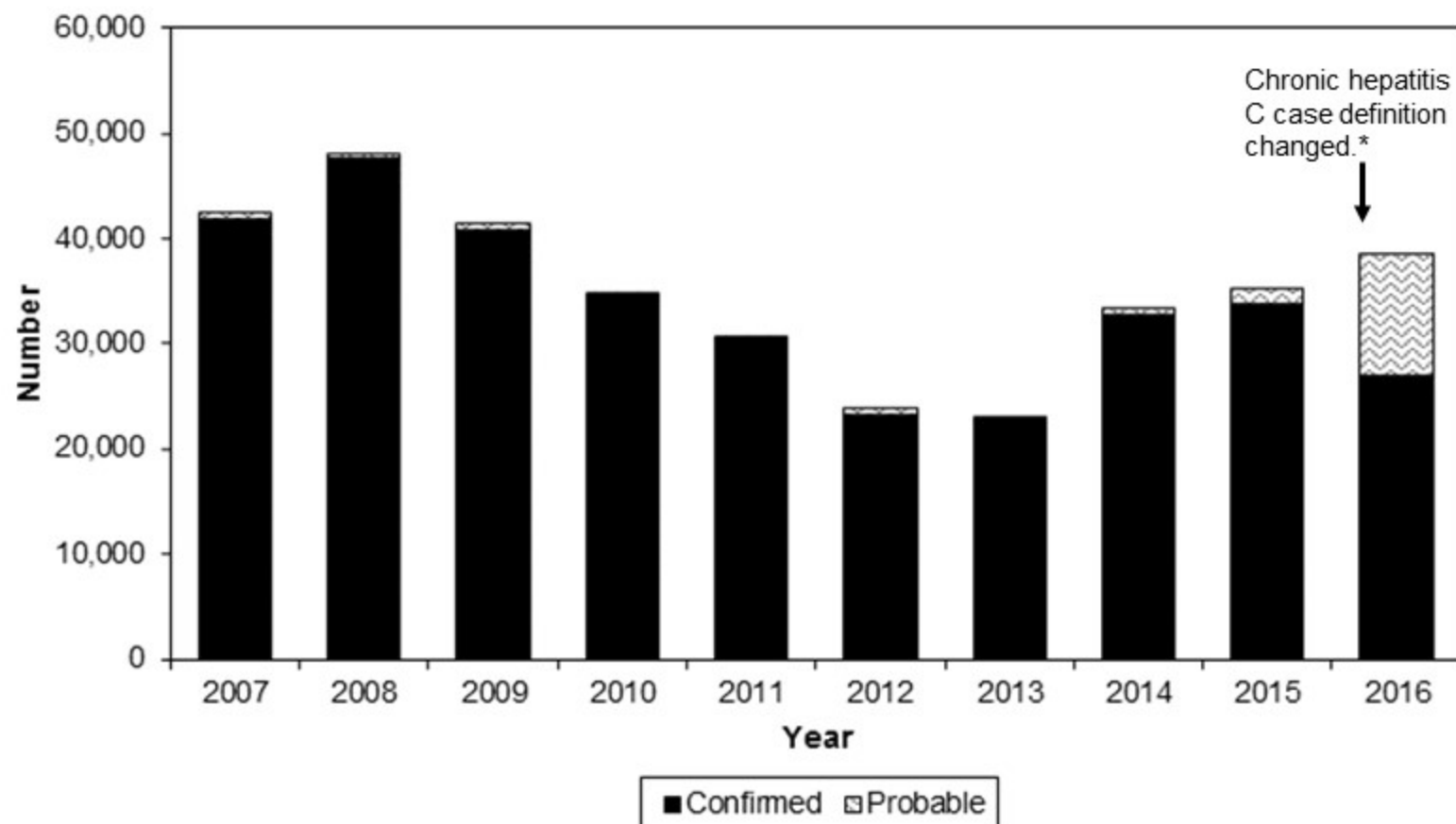
* CalREDIE is a secure, web-based system used for reporting and management of public health surveillance data in California

Epidemiology of Chronic Hepatitis C in California

Chronic Hepatitis C – Rates of Newly Reported Cases (including State Prisons), California, 1994-2016



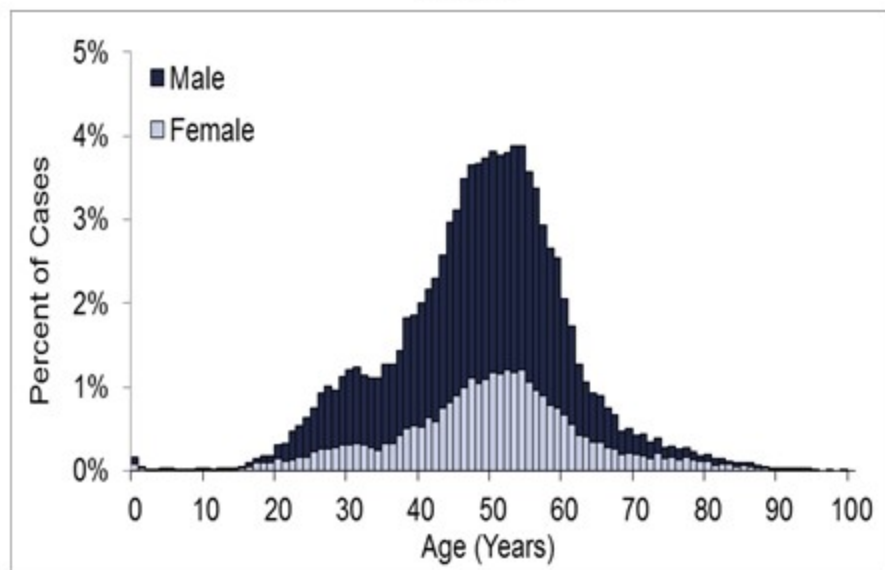
Chronic Hepatitis C – Number of Newly Reported Cases (including State Prisons) by Resolution Status, California, 2007-2016



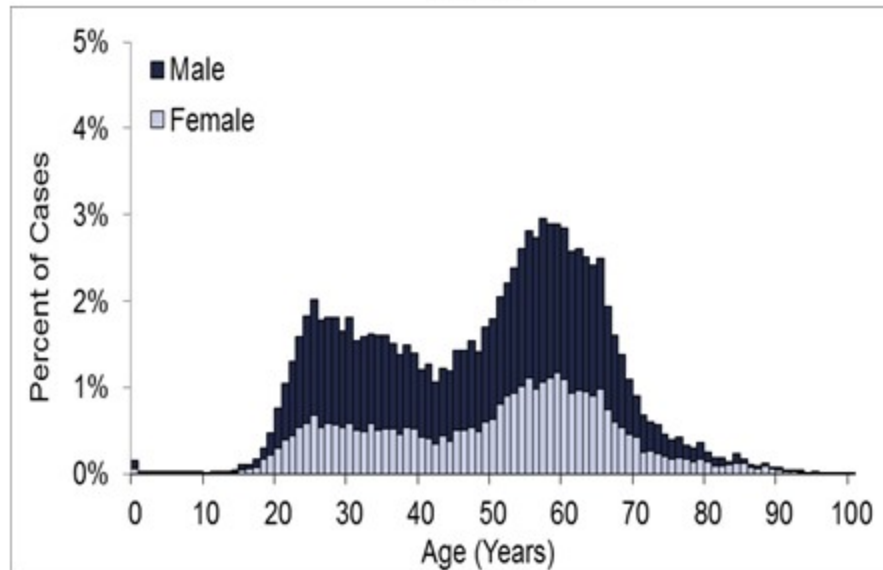
*As of January 2016, a positive hepatitis C virus antibody result with a high signal-to-cut-off ratio was considered probable; RNA was required for a confirmed case.

Chronic Hepatitis C – Age Distribution of Newly Reported Cases, California, 2008 and 2016

2008*



2016†



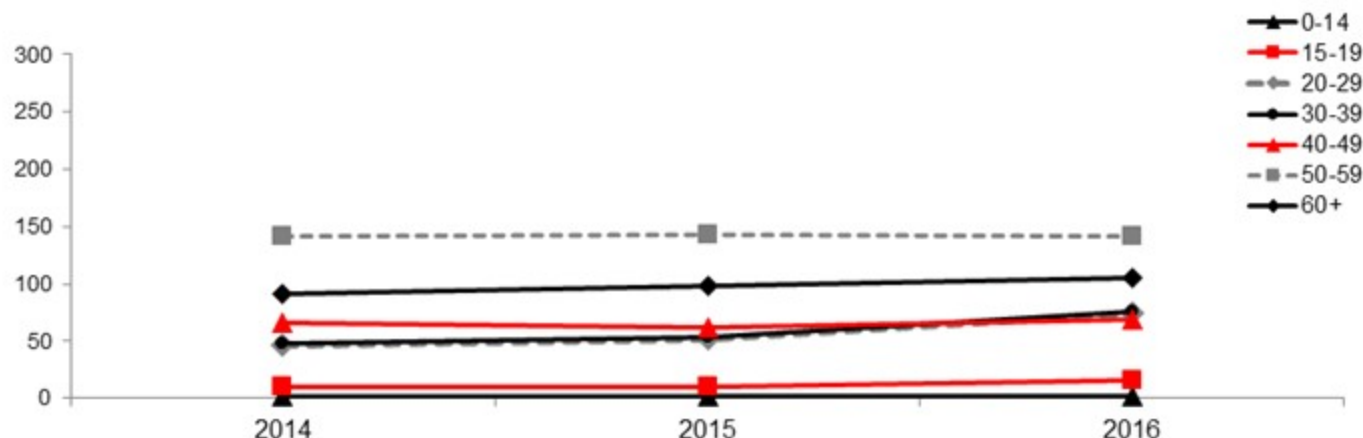
*N = 41,975; excludes 296 cases with missing age or sex information.

†N = 38,192; excludes 174 cases with missing age or sex information.

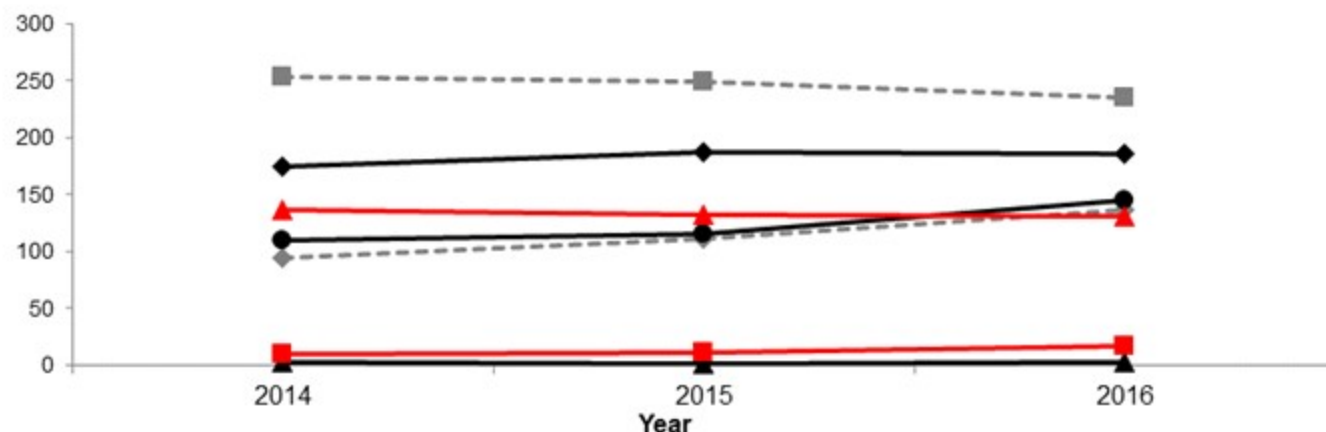
Chronic Hepatitis C – Rates of Newly Reported Cases by Gender and Age, California, 2014-2016

Rate per 100,000 population

Female

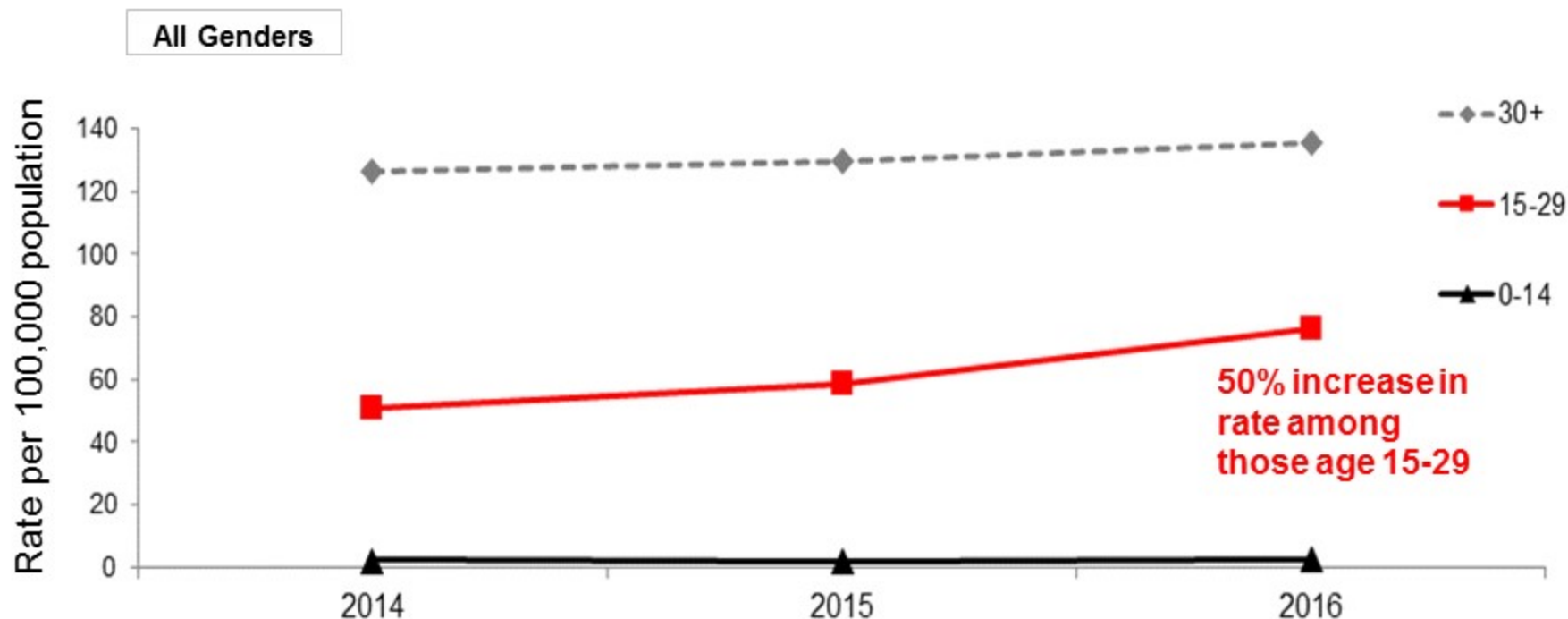


Male

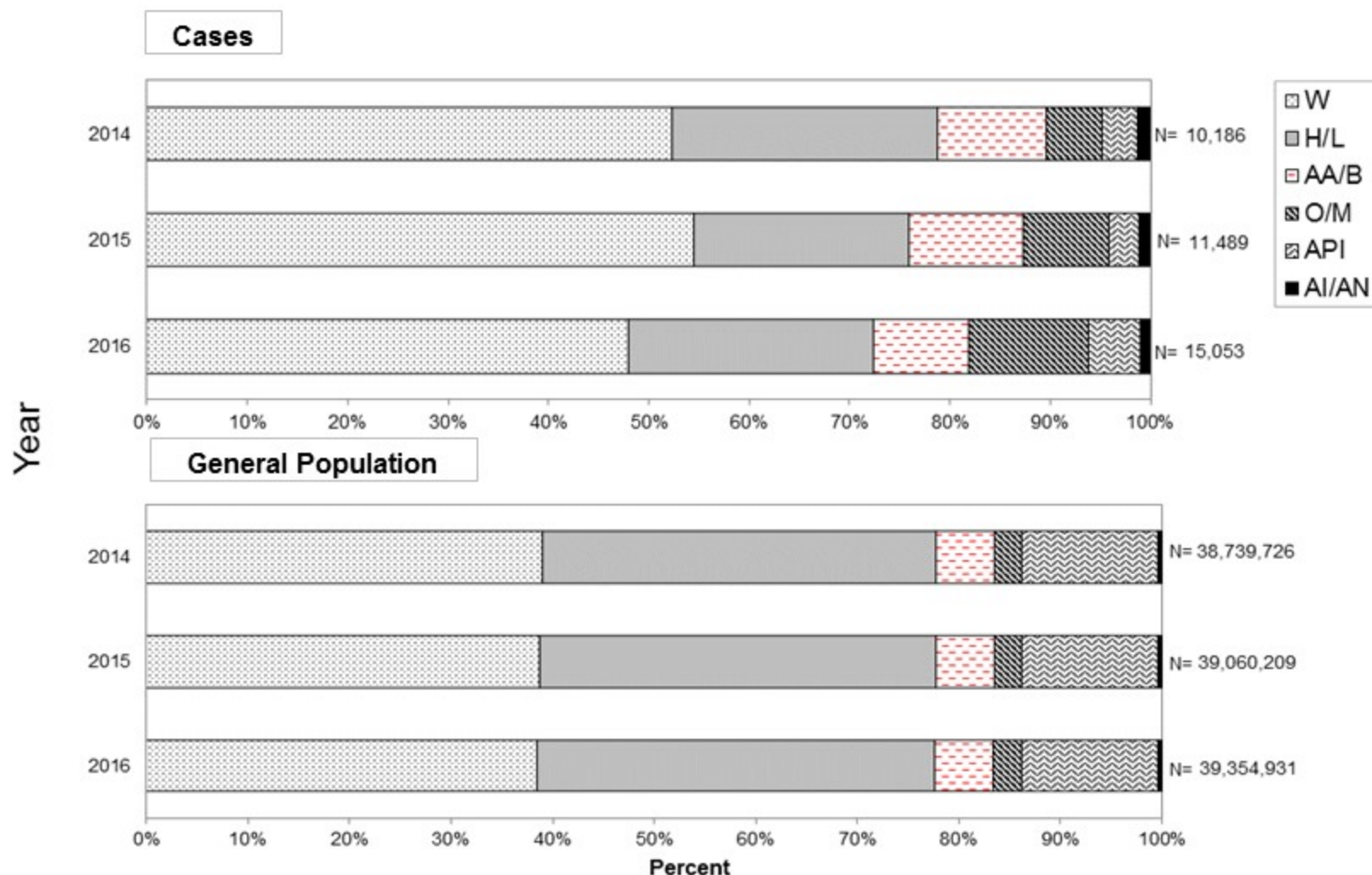


Year

Chronic Hepatitis C – Rates of Newly Reported Cases by Age Group, California, 2014-2016



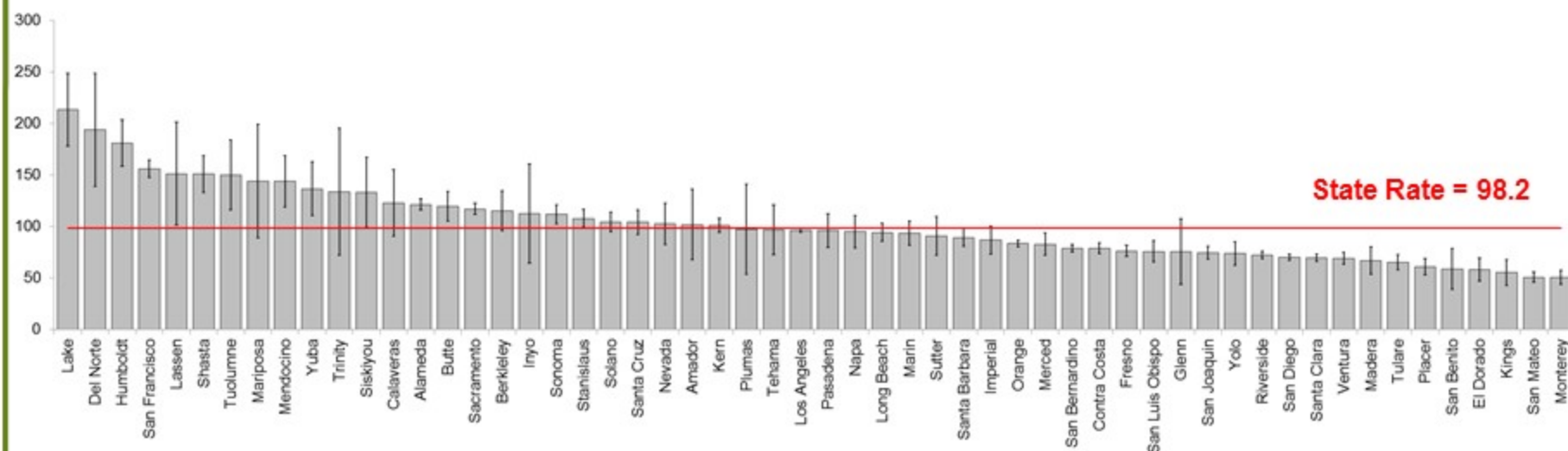
Chronic Hepatitis C – Cases and Percentages of Newly Reported Cases for Which Race/Ethnicity is Known, by Race/Ethnicity, California, 2014-2016



Notes:

- W=White, H/L=Hispanic/Latino, AA/B=African American/Black, API=Asian/Pacific Islander, AI/AN=American Indian/Alaska Native, O/M=Other/Multi-race.
- Percent calculations for race/ethnicity exclude individuals for whom race/ethnicity was "Unknown" from the denominator. Caution should be used when interpreting percentages by race/ethnicity, since race/ethnicity information was not reported for the majority of chronic viral hepatitis cases.

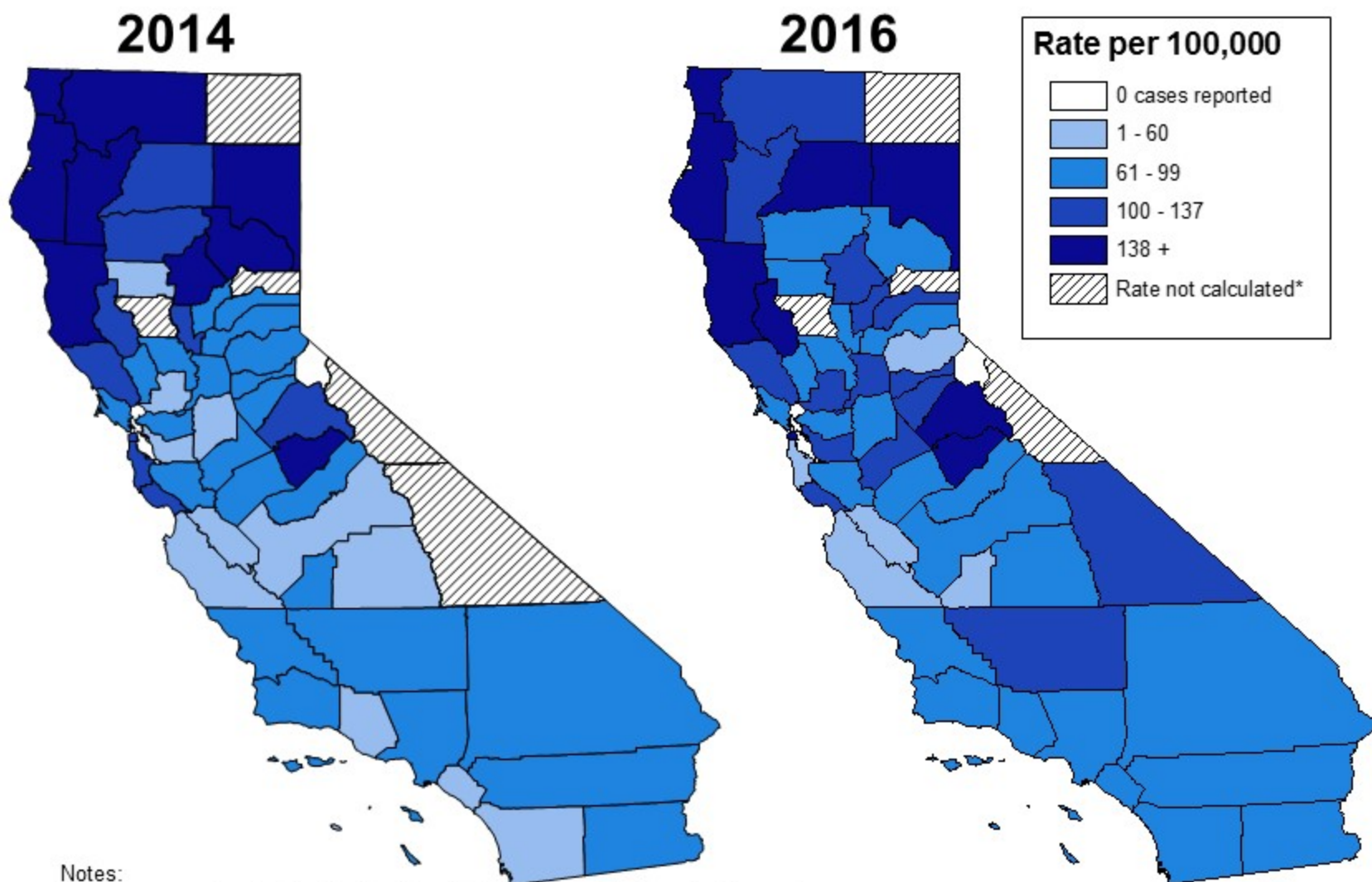
Chronic Hepatitis C – Rates of Newly Reported Cases in Ranked Order by Local Health Jurisdiction, Excluding Cases in State Prisons, California, 2016



Notes:

- Rates are per 100,000 population
- Rates were not calculated for the following local health jurisdictions, which reported ten or fewer cases in 2016: Alpine (0), Colusa (10), Modoc (7), Mono (6) and Sierra (4) counties.
- State prison cases were removed from local health jurisdiction totals and attributed to the state prison system as a whole.
- Error bars represent 95% confidence intervals for the rate.

Chronic Hepatitis C – Rates of Newly Reported Cases by County, Excluding Cases in State Prisons, California, 2014 and 2016

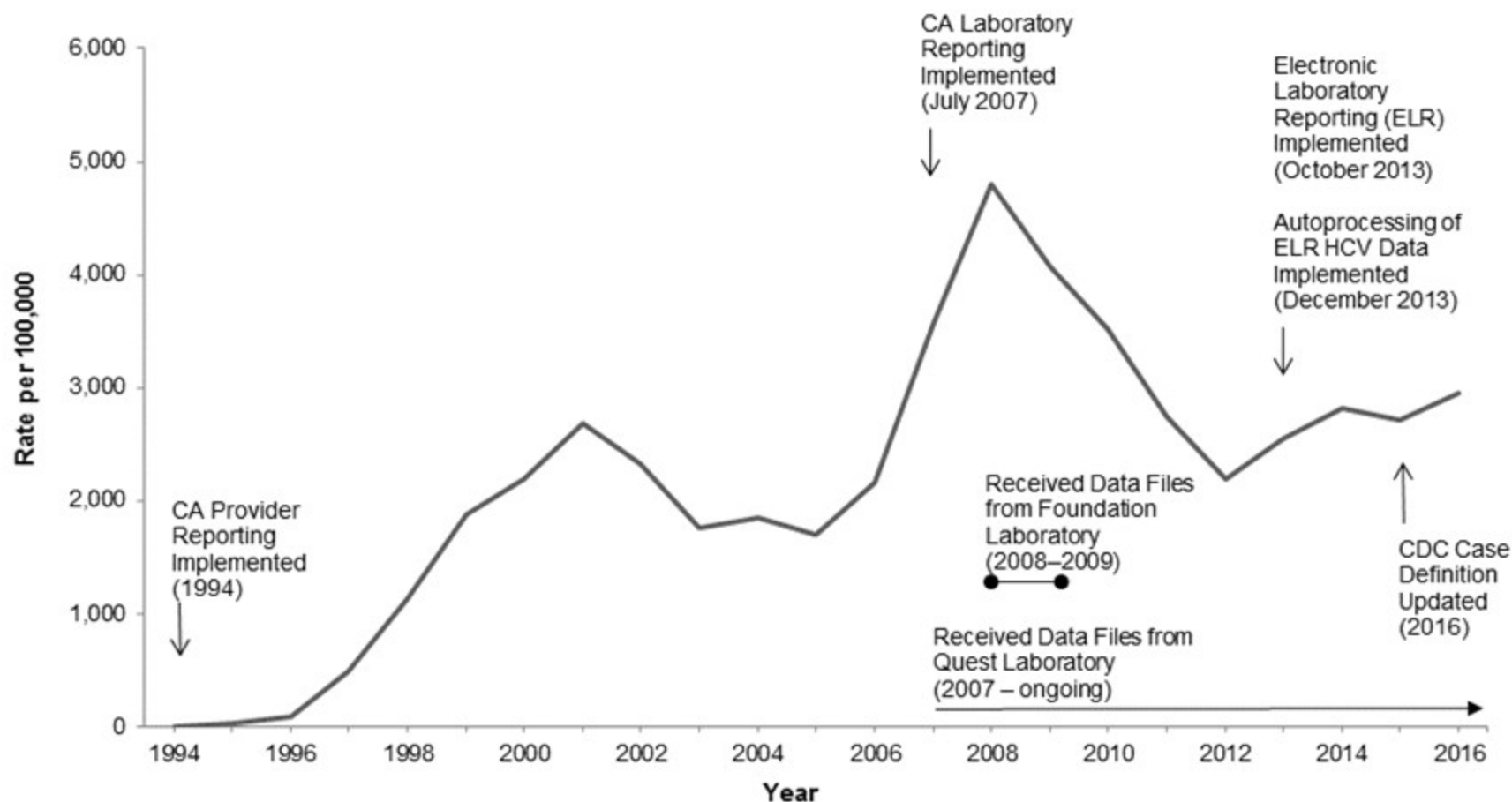


Notes:

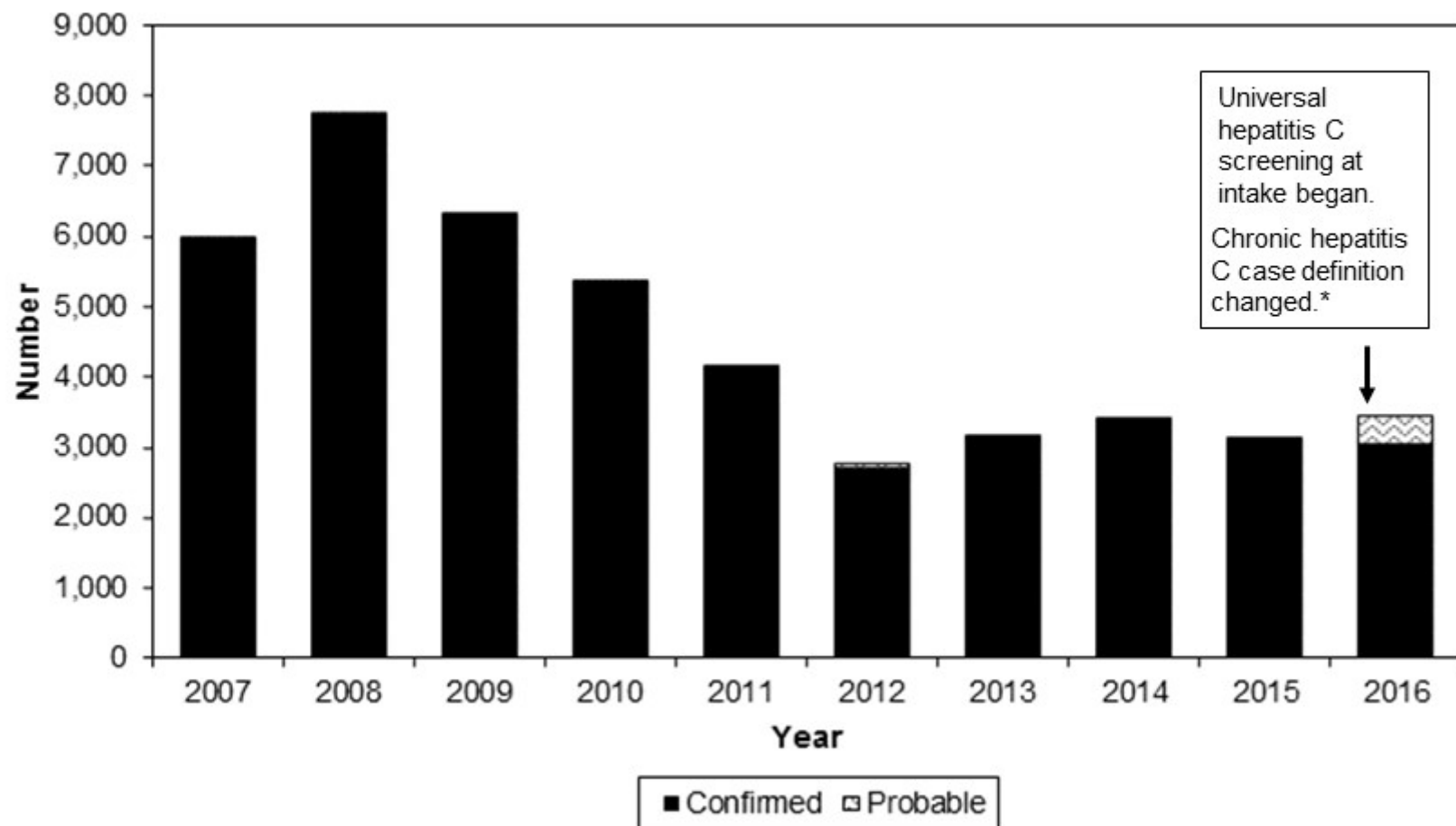
- * Rates were not calculated for local health jurisdictions that reported ten or fewer cases.
- State prisons cases were removed from local health jurisdiction totals and attributed to the state prison system as a whole.

Epidemiology of Chronic Hepatitis C in State Prisons in California

Chronic Hepatitis C – Rates of Newly Reported Cases in State Prisons, 1994-2016

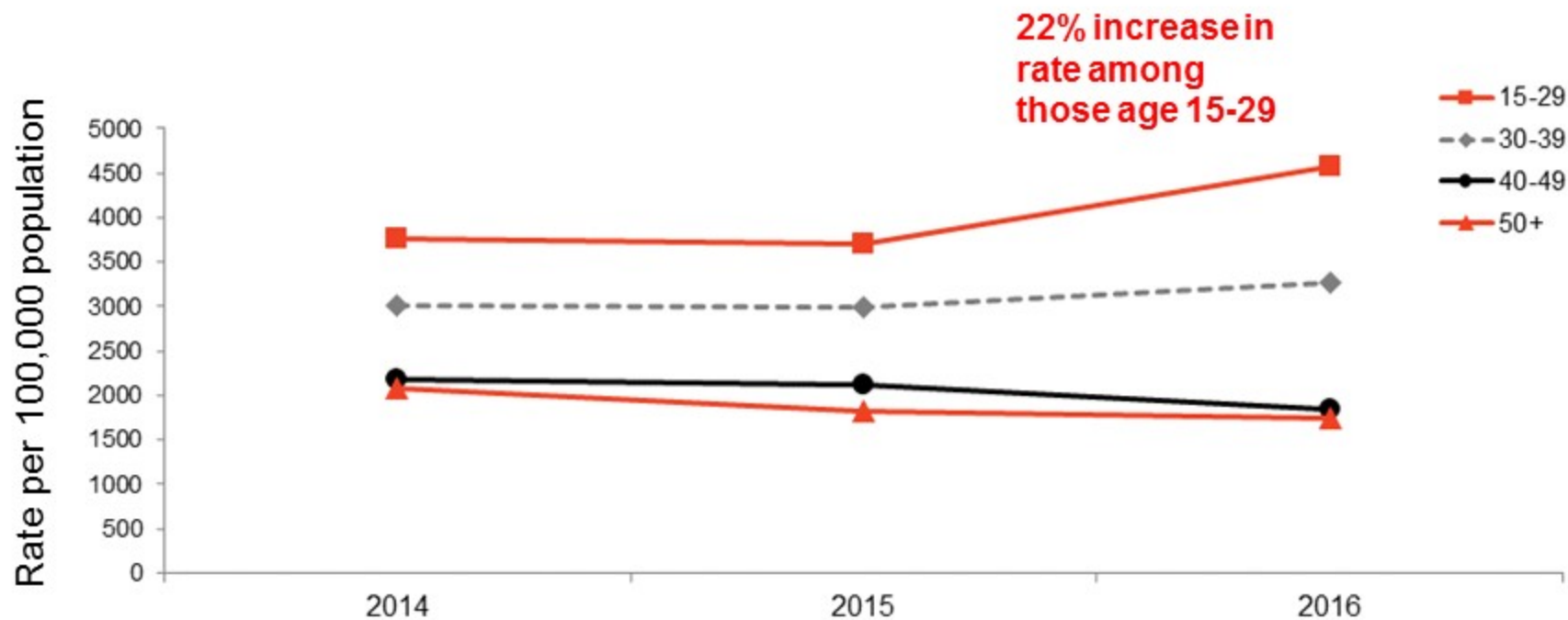


Chronic Hepatitis C – Number of Newly Reported Cases in State Prisons, by Resolution Status, California, 2007-2016



*As of January 2016, a positive hepatitis C virus antibody result with a high signal-to-cut-off ratio was considered probable; RNA was required for a confirmed case.

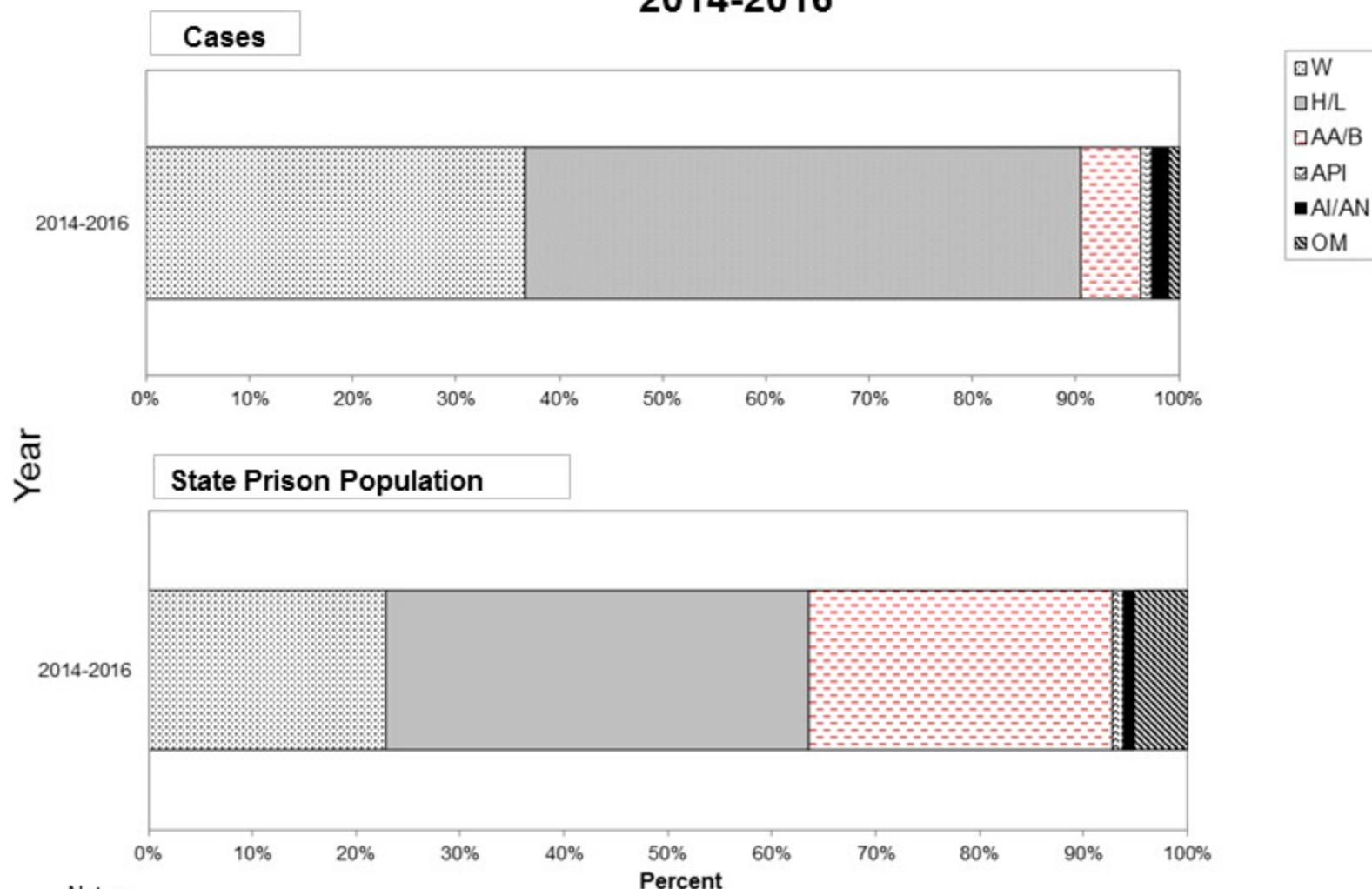
Chronic Hepatitis C – Rates of Newly Reported Cases by Age Group, California State Prisons, 2014-2016



Notes:

- Rates by gender and age group are not shown due to small cell suppression guidelines.

Chronic Hepatitis C – Cases and Percentages of Newly Reported Cases in State Prisons for Which Race/Ethnicity is Known, by Race/Ethnicity, 2014-2016



Notes:

- W=White, H/L=Hispanic/Latino, AA/B=African American/Black, API=Asian/Pacific Islander, AI/AN=American Indian/Alaskan Native, O/M=Other/Multi-race
- Percent calculations for race/ethnicity exclude individuals for whom race/ethnicity was "Unknown" from the denominator. Caution should be used when interpreting percentages by race/ethnicity, since race/ethnicity information was not reported for the majority of chronic viral hepatitis cases.