

Chronic Hepatitis B and Hepatitis C Infections in California

Cases Newly Reported through 2011

November 2013

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

Chronic Viral Hepatitis, California, 2011

Slide Set Notes

- Data presented in these slides describe cumulative cases of chronic hepatitis B and hepatitis C newly reported to CDPH from 1989-2011. Findings from 2007-2011 are highlighted.
- **Data presented in these slides do not measure prevalence or incidence of chronic hepatitis B and 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 Viral Hepatitis, California, 2011

Slide Set Notes (*continued*)

- Percentages, rather than rates, were used to describe newly reported cases by race/ethnicity, since **race/ethnicity information was not reported for more than two-thirds of chronic hepatitis B cases (66-78 percent) and chronic hepatitis C cases (68-82 percent)** during 2007-2011. Interpretation of race/ethnicity data should be done 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.

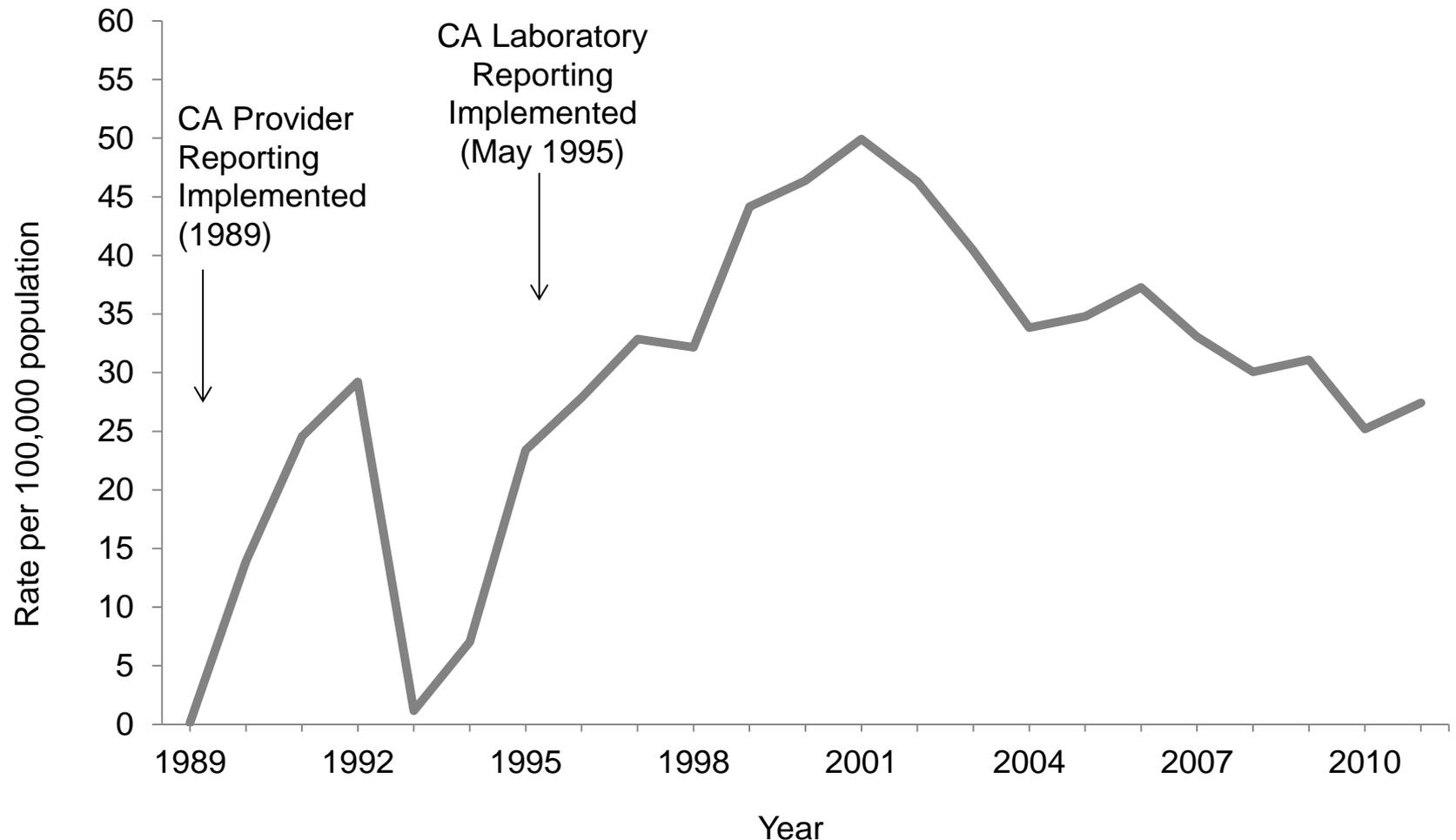
Chronic Viral Hepatitis, California, 2011

Slide Set Notes (*continued*)

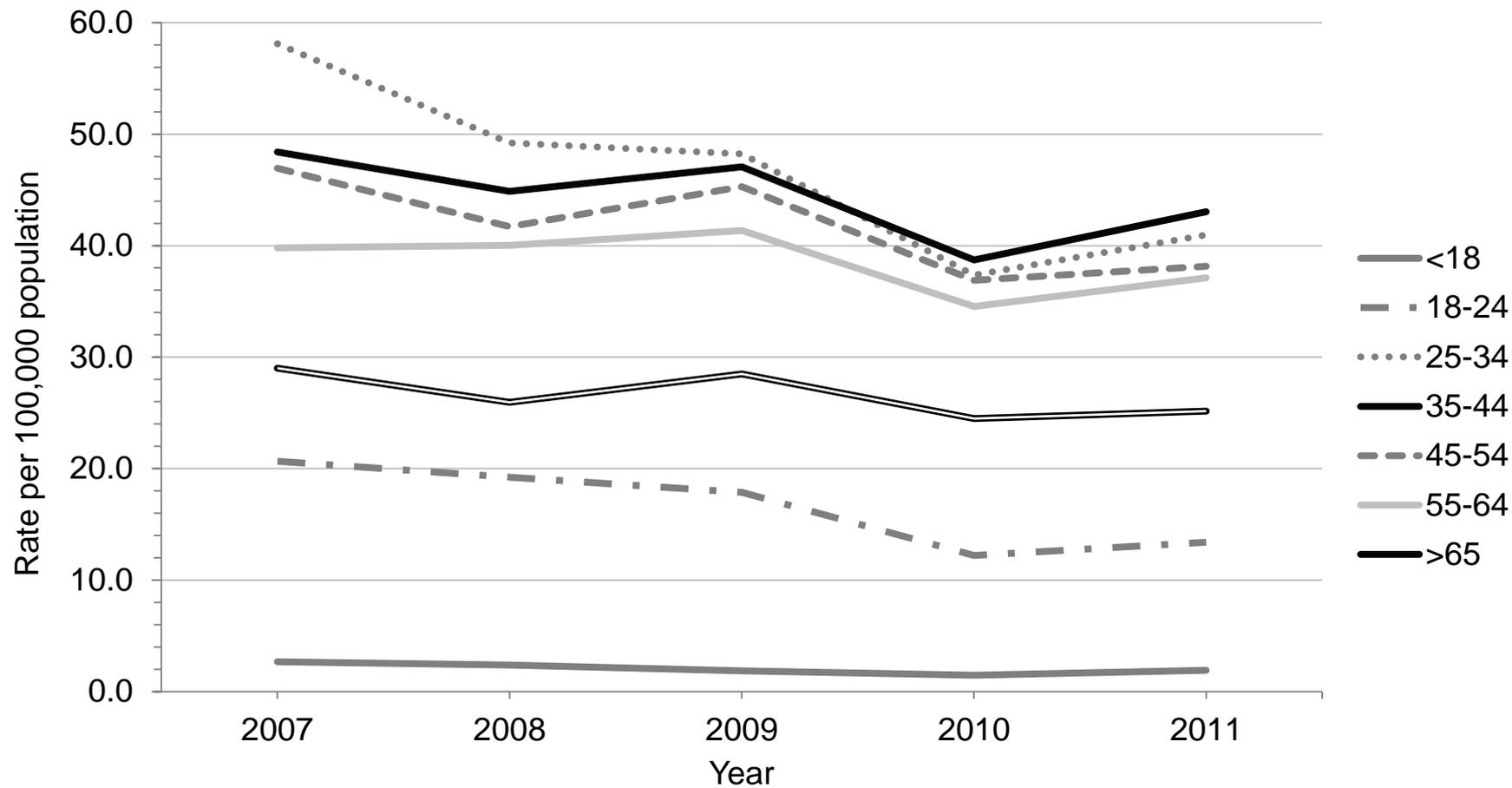
- These **data are more complete for chronic HCV tests reported by selected labs.** CDPH received line-listed laboratory data from only two laboratories, Quest and Foundation, and not from other laboratory sources. Quest and Foundation laboratories served the state prison system for some or all of the years between 2007 and 2011. Thus the data presented in this slide set provide a more complete picture of hepatitis C cases reported by Quest and Foundation laboratories than by other laboratories.
- **Incarcerated persons with chronic hepatitis C are not attributed to the local health jurisdiction in which they were incarcerated at the time of their hepatitis C report.** 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.

Epidemiology of Chronic Hepatitis B in California

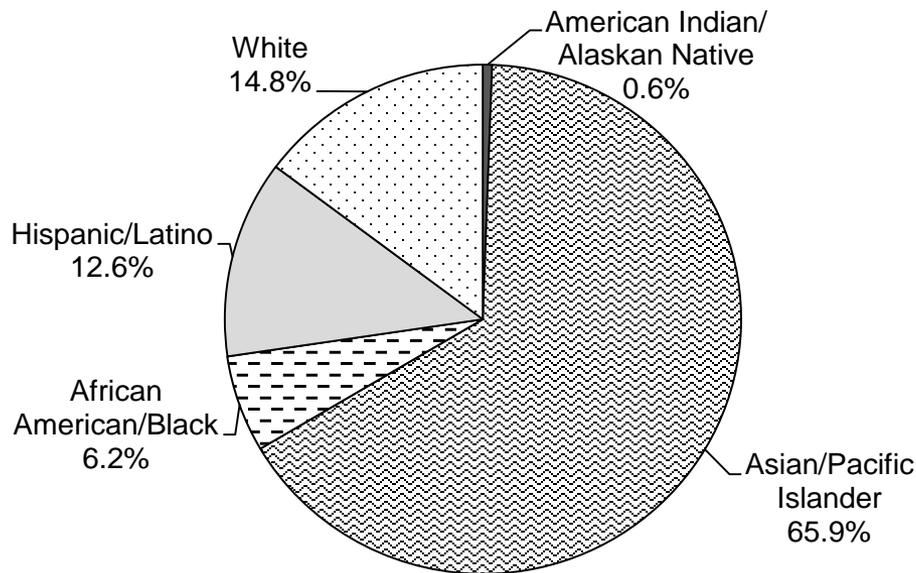
Chronic Hepatitis B – Rates of Newly Reported Cases, California, 1989-2011



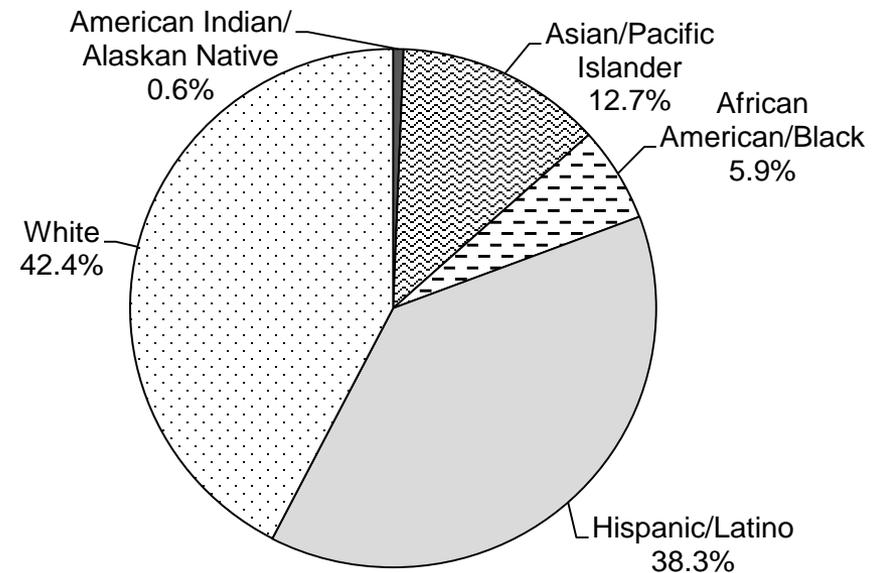
Chronic Hepatitis B – Rates of Newly Reported Cases by Age, California, 2007-2011



Chronic Hepatitis B – Percent of Newly Reported Cases by Race/Ethnicity compared with the General Population, California, 2011



Newly Reported Cases of Chronic Hepatitis B



General Population of California

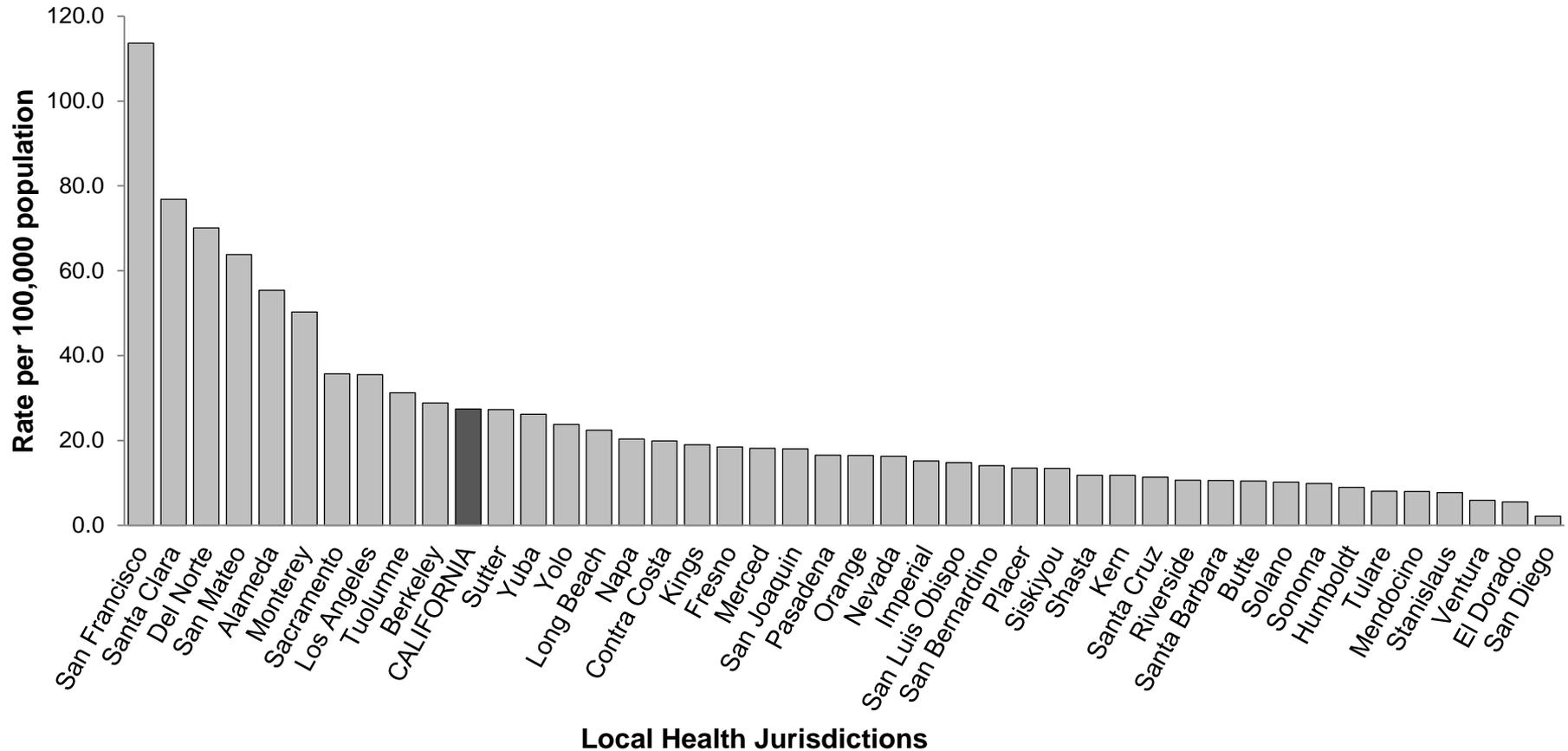
Notes: Percentages are shown among the cases with known race/ethnicity. Race/ethnicity information was missing for more than two-thirds (66.3-78.0) percent of cases from 2007-2011.

Chronic Hepatitis B – Cases and Rates of Newly Reported Cases (per 100,000) by Gender, California, 2007-2011

	Male		Female		Total N (Known Gender)*	Gender Not Specified N
	N	Rate	N	Rate		
2007	5,648	29.9	5,224	27.6	10,872	1,206
2008	5,169	27.1	4,662	24.3	9,831	1,244
2009	5,635	29.2	4,773	24.6	10,408	1,123
2010	4,509	23.1	3,841	19.6	8,350	1,052
2011	4,790	24.2	4,536	22.9	9,326	981

* From 2007-2011, there were 9 cases reported as transgender. This is likely an underestimate of the true number of cases among transgender individuals.

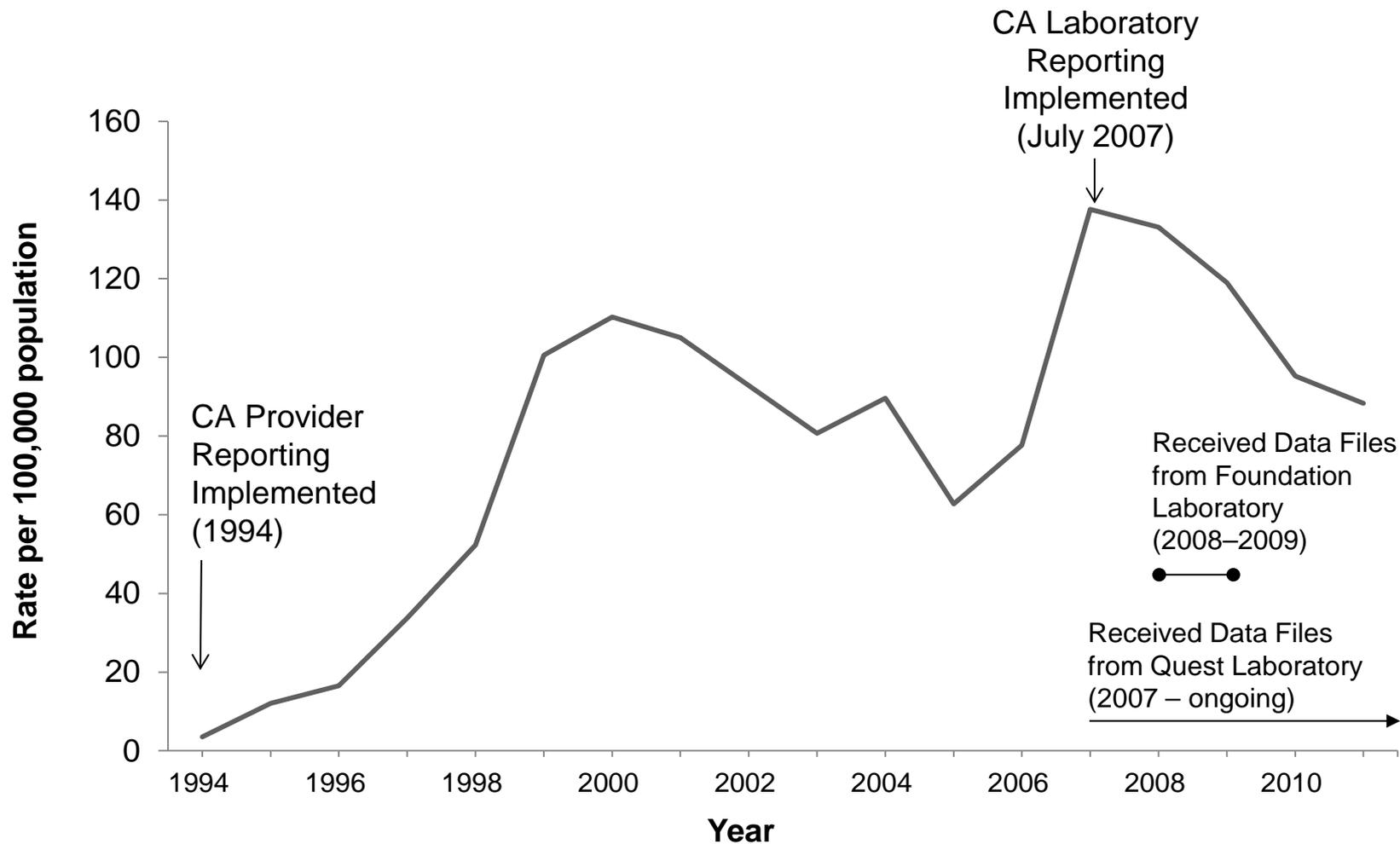
Chronic Hepatitis B – Rates of Newly Reported Cases in Ranked Order by Local Health Jurisdictions, California, 2011



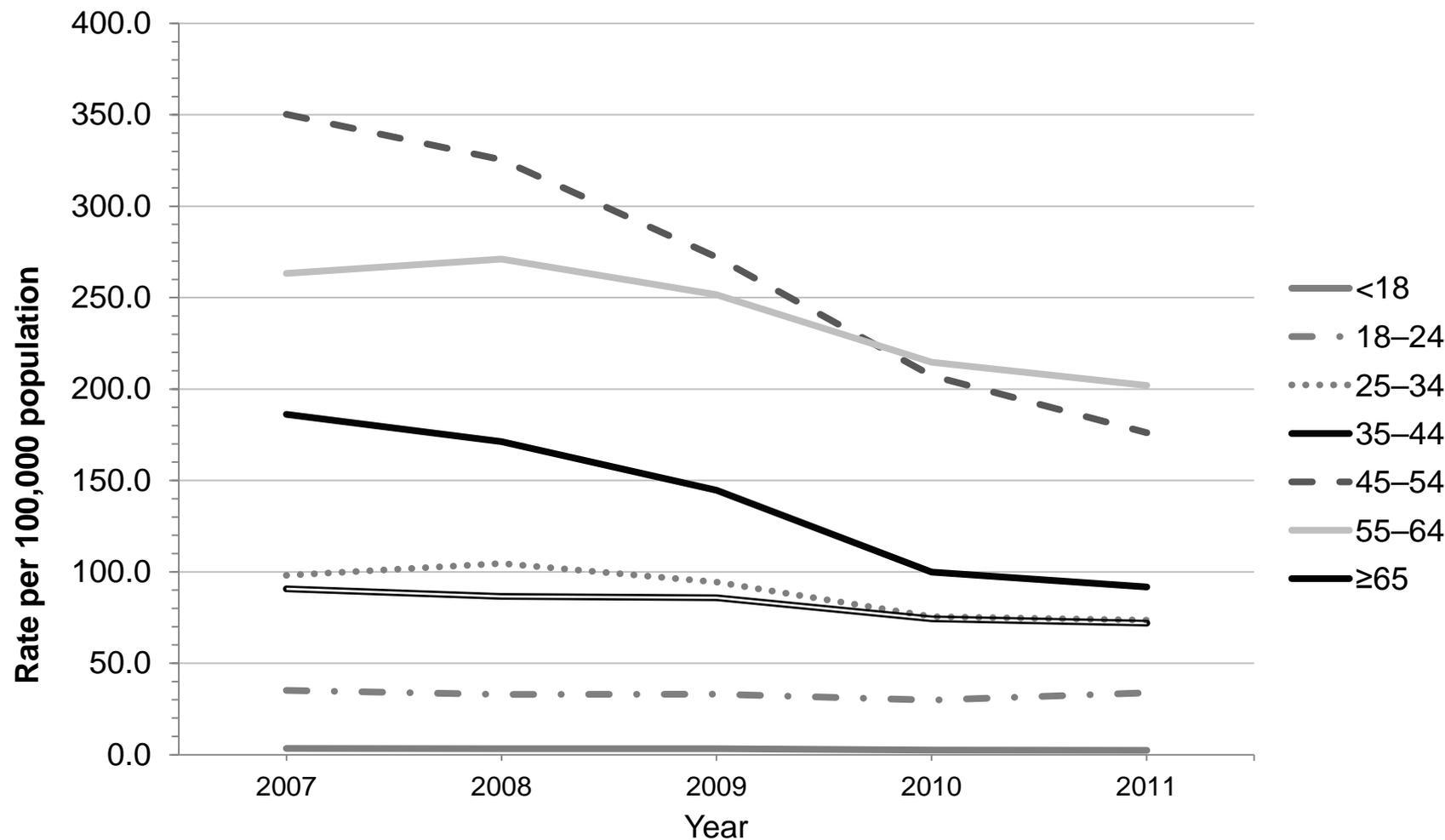
Note: Rates were not calculated for the following local health jurisdictions, which reported 5 or fewer cases in 2011: Amador (4), Calaveras (2), Lake (4), Madera (1), Marin (3), San Benito (2), Sierra (1), and Tehama (1) counties. Alpine, Colusa, Glenn, Inyo, Lassen, Mariposa, Modoc, Mono, Plumas, and Trinity counties did not have any newly reported chronic HBV cases in 2011.

Epidemiology of Chronic Hepatitis C in California

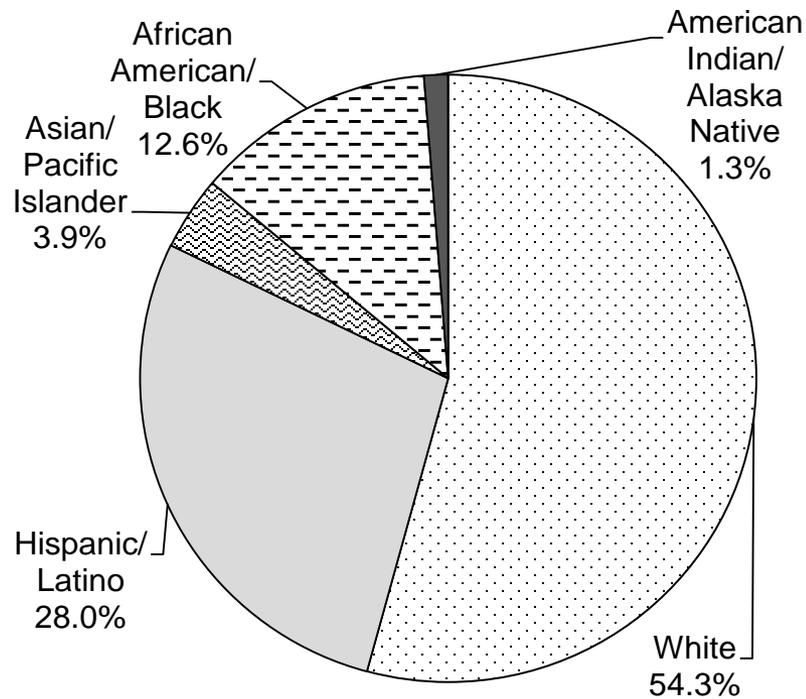
Chronic Hepatitis C – Rates of Newly Reported Cases, California, 1994-2011



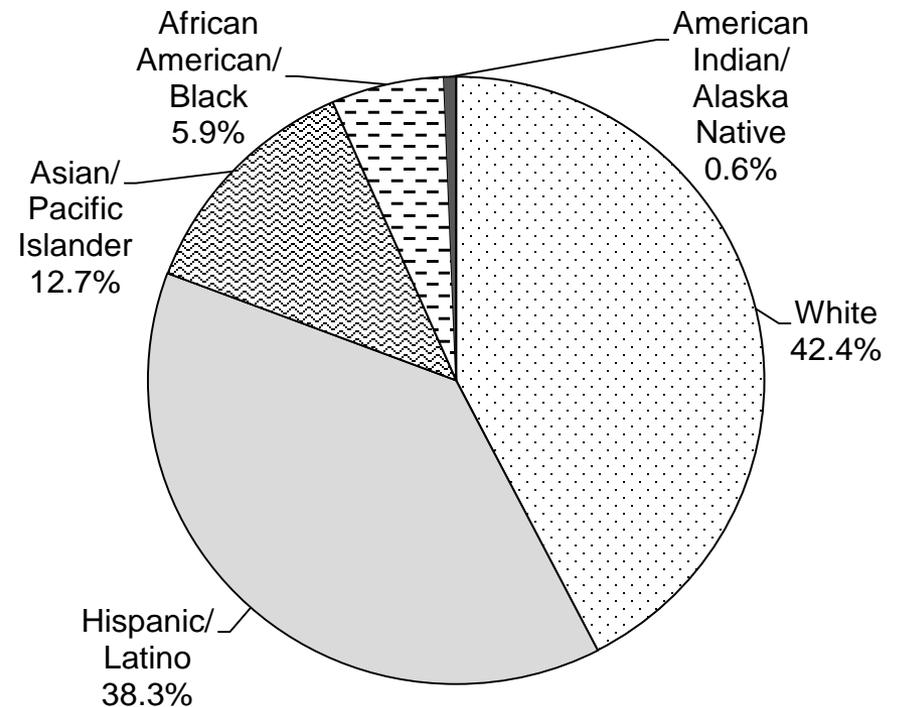
Chronic Hepatitis C – Rates of Newly Reported Cases by Age, California, 2007-2011



Chronic Hepatitis C – Percent of Newly Reported Cases for Which Race/Ethnicity is Known, by Race/Ethnicity compared with the General Population, California, 2011



Newly Reported Cases of Chronic Hepatitis C



General Population of California

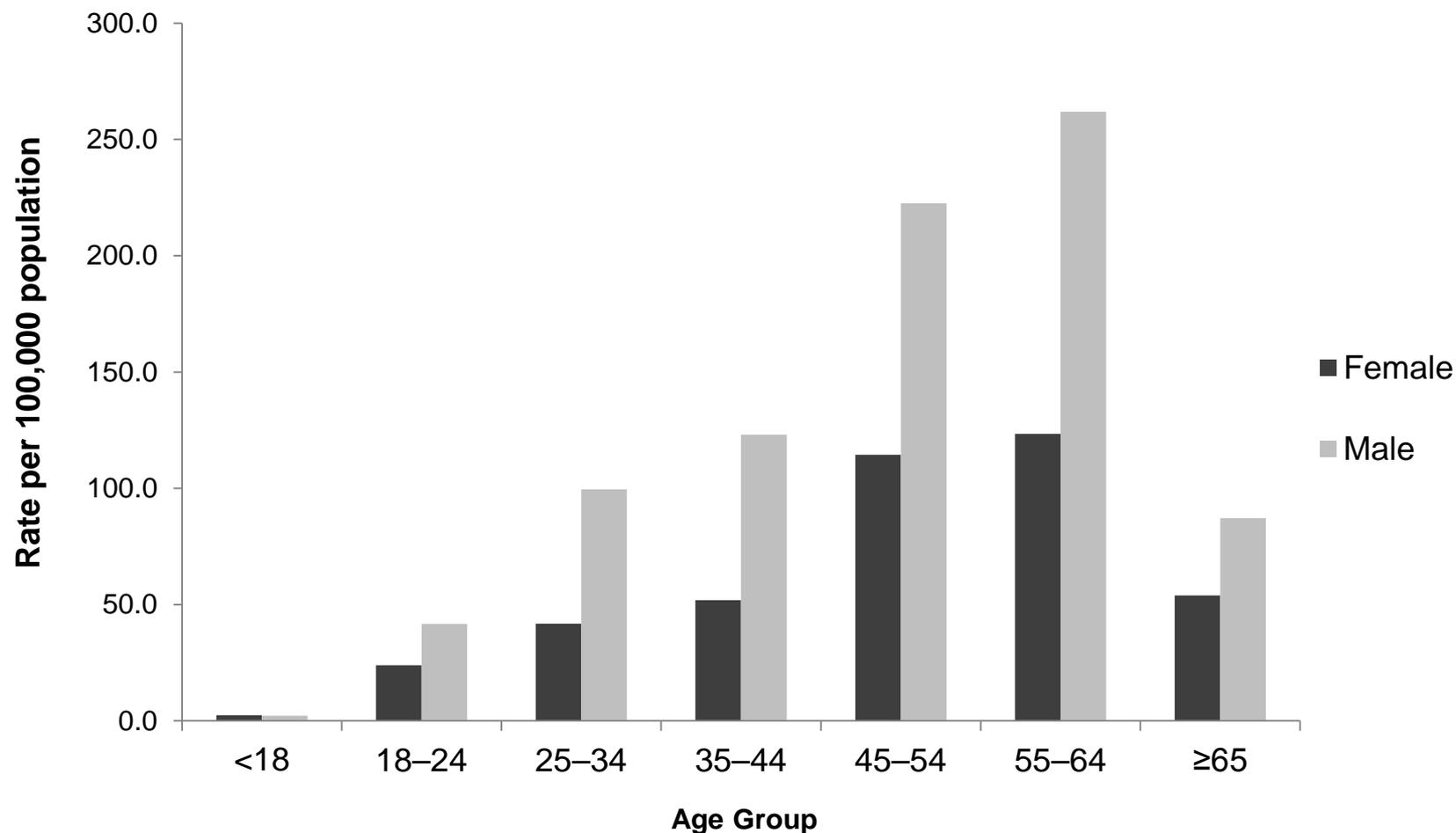
Notes: The percentages shown are among the cases with known race/ethnicity. Race/ethnicity information was missing for more than two-thirds (67.9 to 81.8 percent) of cases from 2007-2011.

Chronic Hepatitis C – Cases and Rates of Newly Reported Cases (per 100,000) by Gender, California, 2007-2011

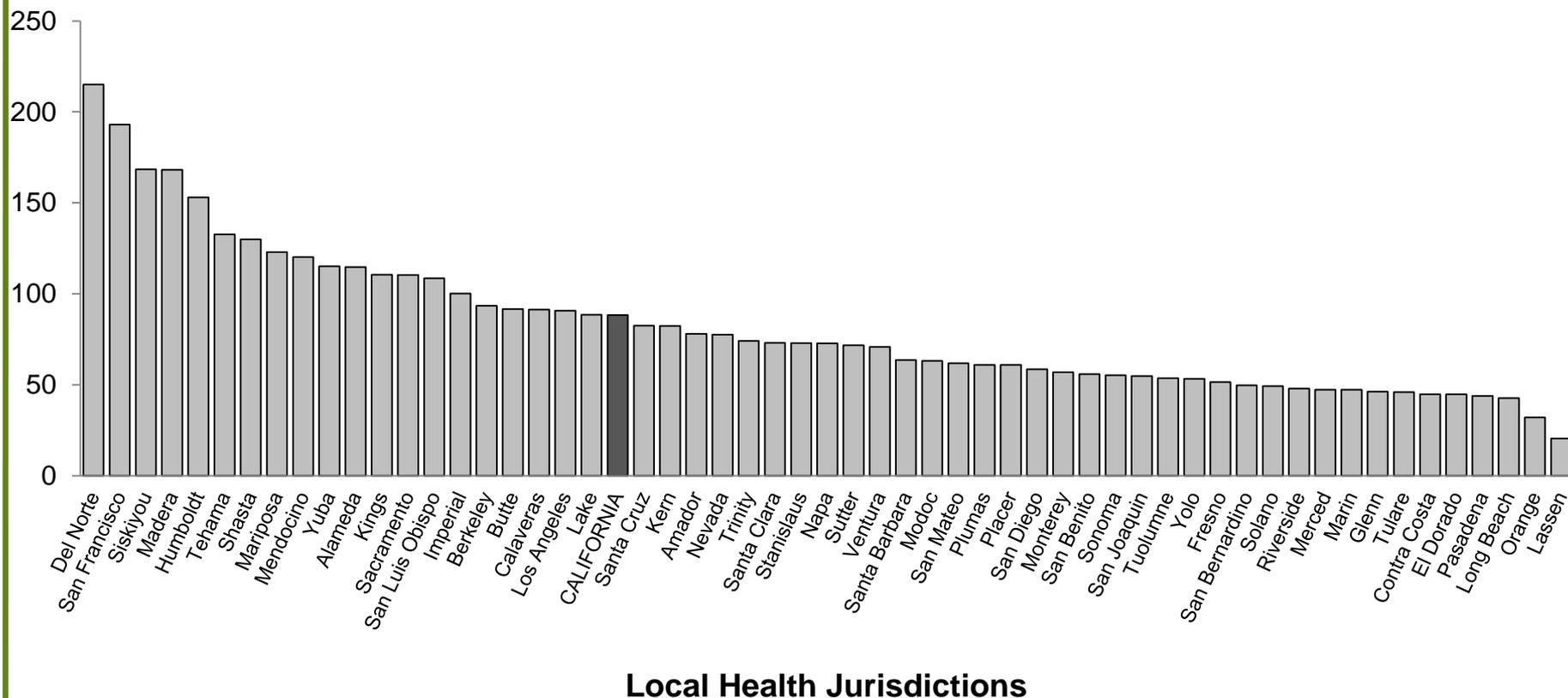
	Male		Female		Total N (Known Gender)*	Gender Not Specified N
	N	Rate	N	Rate		
2007	34,082	180.6	15,836	83.6	49,918	377
2008	32,473	170.1	14,362	75.0	46,835	2,225
2009	29,105	150.8	12,998	67.1	42,103	2,021
2010	22,753	116.5	11,306	57.7	34,059	1,485
2011	21,091	106.7	10,546	53.1	31,637	1,552

*From 2007-2011, there were 18 cases reported as transgender. This is likely an underestimate of the true number of cases among transgender individuals.

Chronic Hepatitis C – Cases and Rates of Newly Reported Cases (per 100,000) by Age and Gender, California, 2011

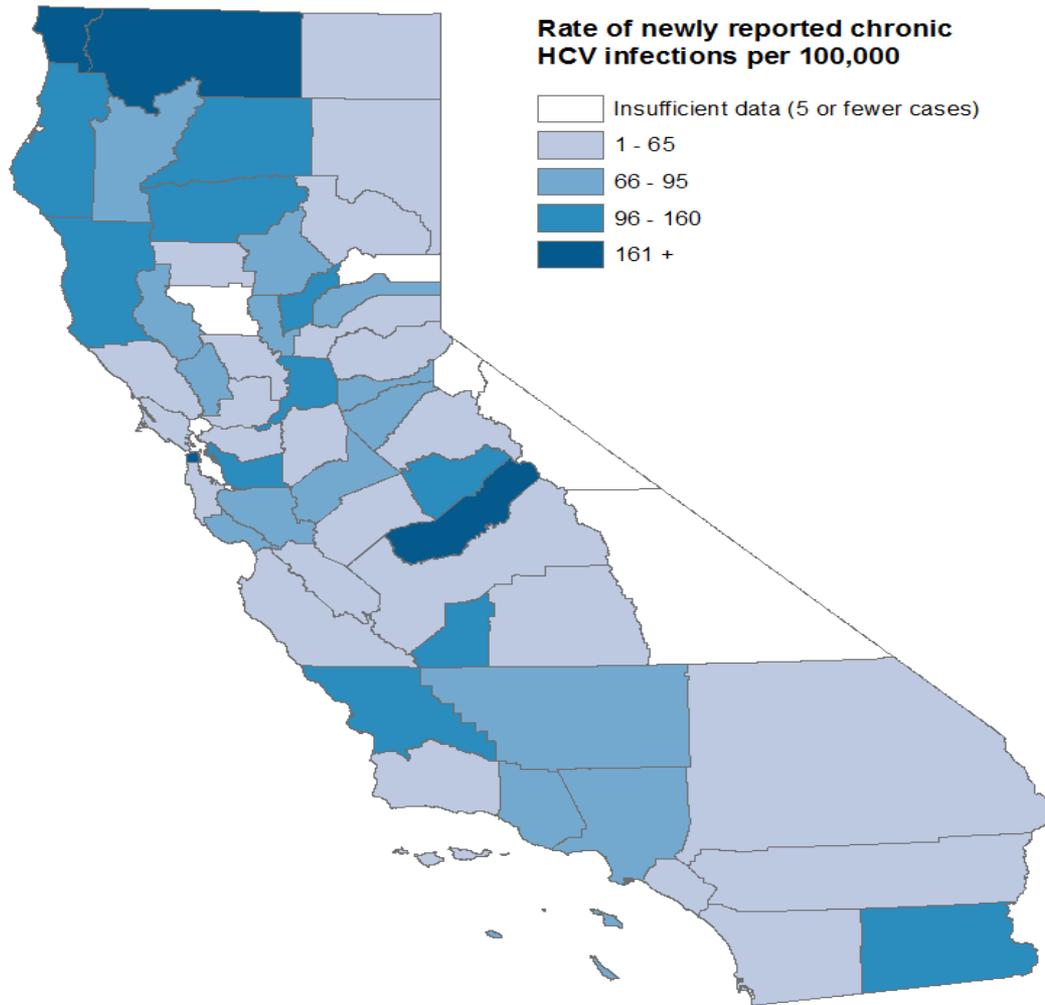


Chronic Hepatitis C – Rates of Newly Reported Cases (per 100,000) in Ranked Order by Local Health Jurisdiction, Excluding Cases in State Prisons, California, 2011



- Notes:
- Rates were not calculated for the following local health jurisdictions, which reported 5 or fewer cases in 2011: Alpine (0), Colusa (2), Inyo (2), Mono (1), and Sierra (1) counties.
 - State prison cases were removed from local health jurisdiction totals and attributed to the state prison system as a whole.

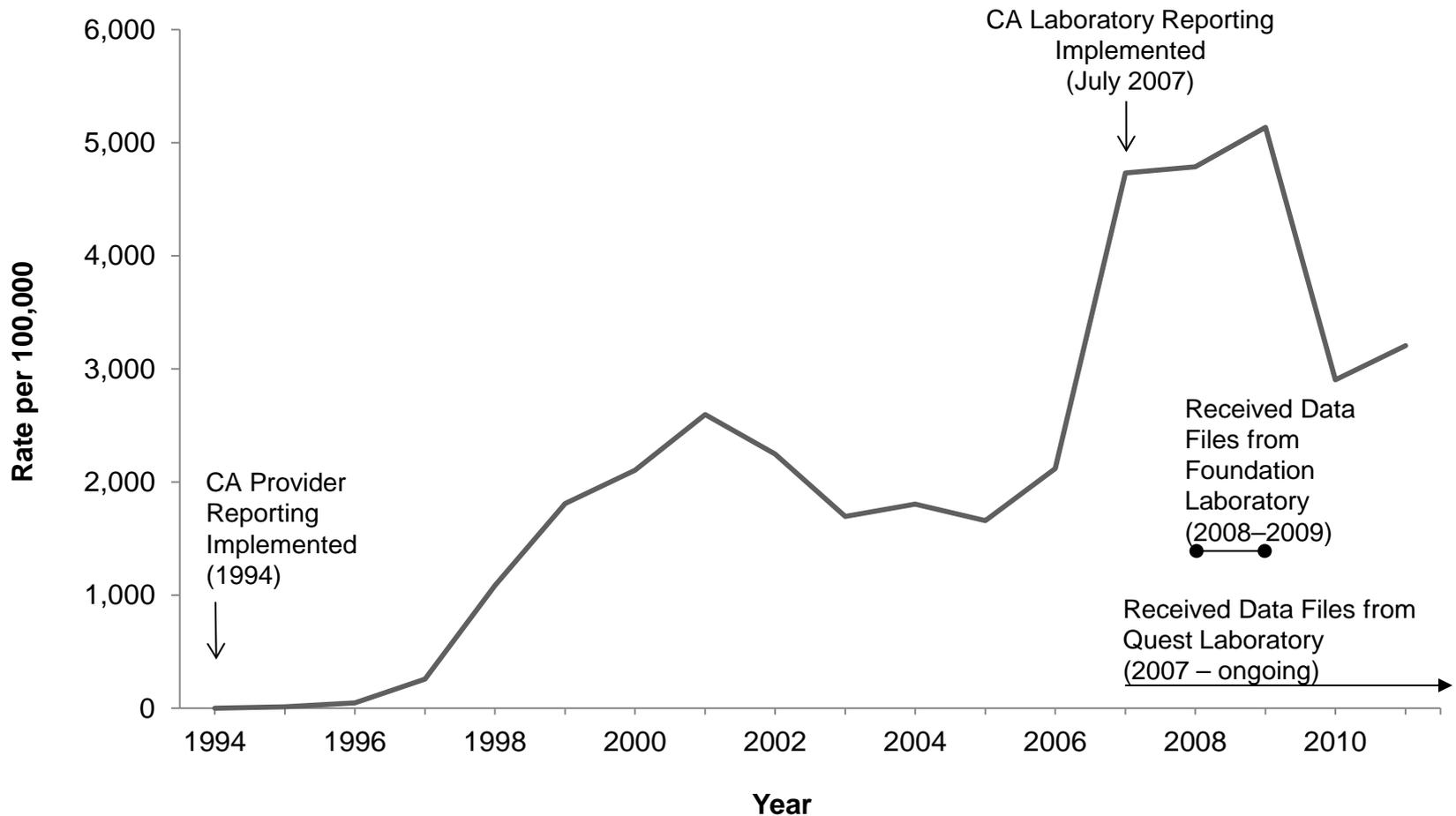
Chronic Hepatitis C, Rates of Newly Reported Cases (per 100,000) by County, Excluding Cases in State Prisons, California, 2011



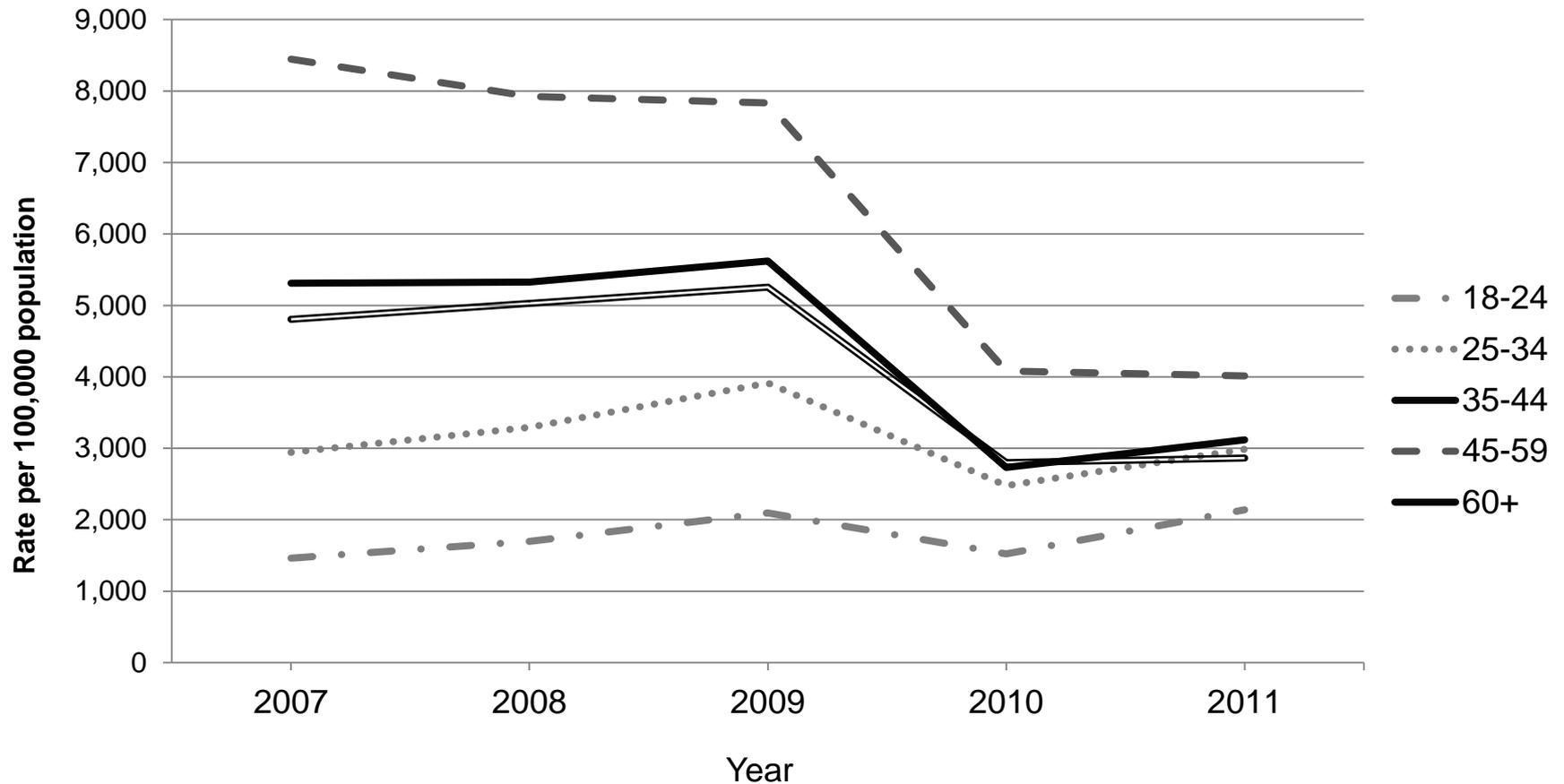
- Notes:
- Rates were not calculated for the following local health jurisdictions, which reported 5 or fewer cases in 2011: Alpine (0), Colusa (2), Inyo (2), Mono (1), and Sierra (1) counties.
 - State prison cases were removed from local health jurisdiction totals and attributed to the state prison 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, California, 1994-2011

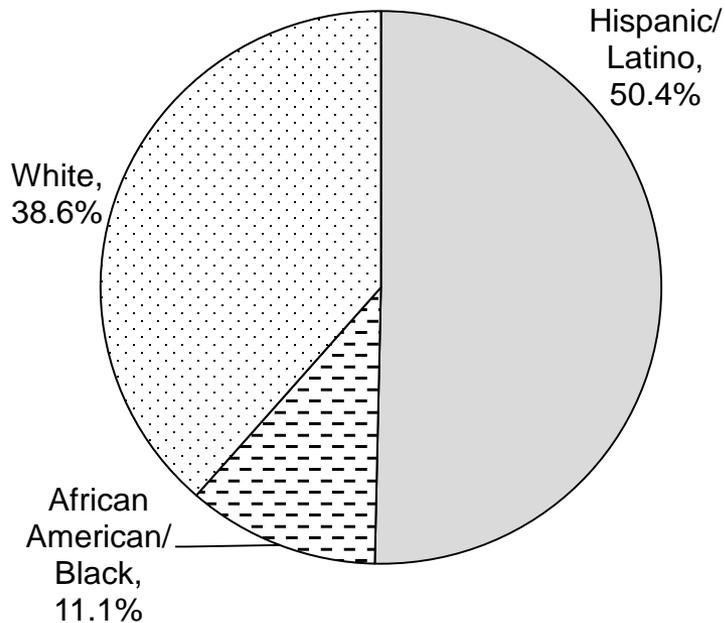


Chronic Hepatitis C – Rates of Newly Reported Cases in State Prisons by Age*, California, 2007-2011

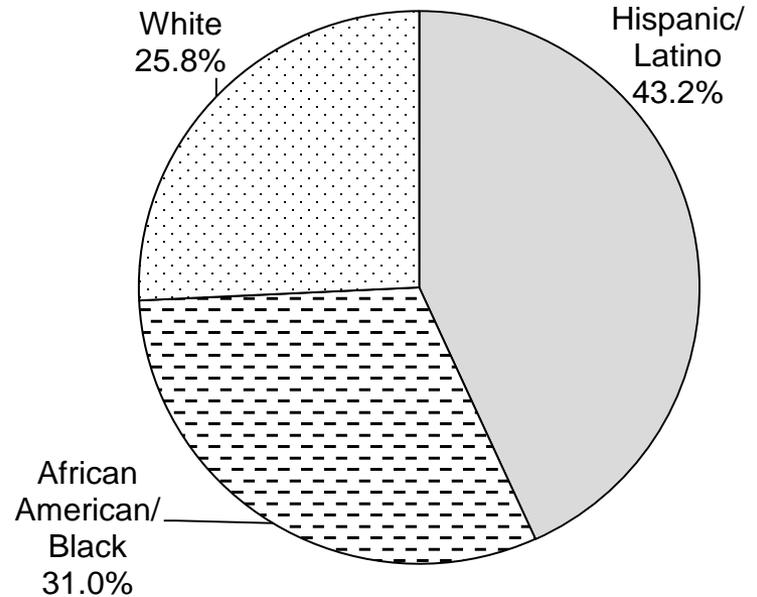


*State prison census data use different age group categories than the California Department of Finance categories used in this slide set.

Chronic Hepatitis C – Percent of Newly Reported Cases in State Prisons by Race/Ethnicity* compared with the General State Prison Population, California, 2011



Newly Reported Cases of Chronic Hepatitis C in State Prisons



General Population of California State Prisons

*State prison census data use different race/ethnicity categories than the California Department of Finance categories used in this slide set.

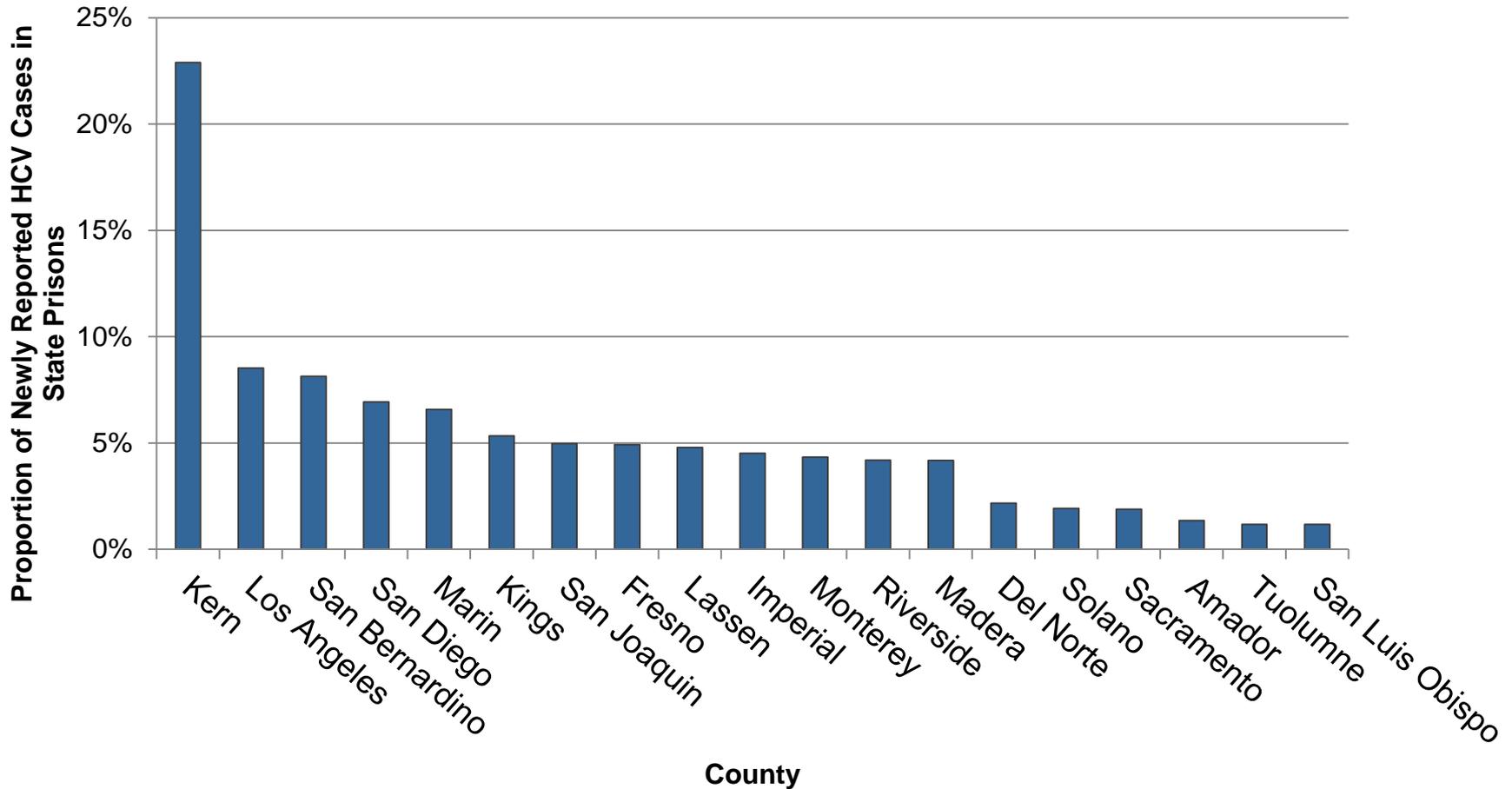
Note: Percentages shown are among cases with known race/ethnicity. Race/ethnicity information is missing for half or more (49.7-84.2 percent) of cases.

Chronic Hepatitis C – Cases and Rates of Newly Reported Cases (per 100,000) in State Prisons by Gender, California, 2007-2011

	Male		Female		Total N (Known Gender)*	Gender Not Specified N
	N	Rate	N	Rate		
2007	7,804	4835.8	393	3304.2	8,197	1
2008	7,709	4828.1	477	4183.8	8,186	3
2009	7,936	5056.5	684	6199.6	8,620	4
2010	4,508	2893.1	302	2990.7	4,810	5
2011	4,991	3231.0	272	2799.5	5,263	0

*From 2007-2011, there were 2 cases reported as transgender. This is likely an underestimate of the true number of cases among transgender individuals.

Chronic Hepatitis C – Percent of Newly Reported Cases in State Prisons in Ranked Order by County, California, 2011



Chronic Hepatitis B in California – Key findings

- From 2007-2011, persons less than 18 years of age had the lowest rates of newly reported chronic HBV infections. This encouraging result can most likely be attributed to (1) the addition of hepatitis B vaccine in routine childhood vaccination schedules in the 1990s, and (2) the implementation of the perinatal HBV program in California in 1991.
- From 2007-2011, APIs accounted for approximately two-thirds of newly reported chronic hepatitis B cases in the state—a significant racial disparity given that APIs constitute only 13 percent of the state population. This result is similar to national figures, which have found that APIs account for more than half of chronic hepatitis B cases in the United States despite making up less than 5 percent of the population. These findings reinforce the importance of routine testing for hepatitis B among all persons born in countries with a hepatitis B prevalence of two percent or higher, as recommended by the CDC.

Chronic Hepatitis C in California – Key findings

- Persons born during 1945-1965 make up approximately 60 percent of all chronic hepatitis C cases in California. The disproportionate impact of chronic hepatitis C on the “baby boomer” population underscores the importance of implementing the recommendation issued by the CDC and U.S. Preventive Services Task Force for one-time HCV testing for all persons born during 1945-1965, without prior ascertainment of risk.

Chronic Hepatitis C in California – Key findings

(continued)

- Among cases in California for whom information on race/ethnicity was available, White, African American/Black, and American Indian/Alaska Native persons were disproportionately affected by chronic hepatitis C.
- Increases in the rates of newly reported chronic hepatitis C cases among young persons (18-34 years of age) in California state prisons are notable, and warrant further investigation. While these findings are preliminary, increased rates of HCV infection may be consistent with findings in other states, which have reported increases in injection drug use, and new injection-related HCV infections, among rural and suburban young people.

Resources

California Department of Public Health

- Chronic Viral Hepatitis Surveillance Report & LHJ-specific Data Tables:
www.cdph.ca.gov/programs/pages/viralhepatitisdata.aspx
- Adult Viral Hepatitis Prevention Strategic Plan, 2010-2014
[http://www.cdph.ca.gov/programs/Documents/California Adult Viral Hepatitis Prevention Strategic Plan, 2010-2014.Final.pdf](http://www.cdph.ca.gov/programs/Documents/California_Adult_Viral_Hepatitis_Prevention_Strategic_Plan,_2010-2014.Final.pdf)

Center for Disease Control and Prevention

- [Recommendations for the Identification of Chronic Hepatitis C Infection Among Persons Born During 1945-1965. MMWR. 2012.](#)
- [Recommendations for Identification and Public Health Management of Persons with Chronic Hepatitis B Virus Infection. MMWR. 2008.](#)

U.S. Dept. of Health and Human Services

- Hepatitis C Infection in Young Persons Who Inject Drugs.
<http://aids.gov/pdf/hcv-and-young-pwid-consultation-report.pdf>

Acknowledgements

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