



# California STD Surveillance 2010 Data Graph Set

## STD Slide Set Notes

### California, 2010

- The year for California data presented in these slides is based on a hierarchy of dates (i.e., the earliest of the following dates: clinic visit, specimen collection, diagnosis, treatment, and lab report/CMR received by the health jurisdiction).
- Map slides are provided in color and black/white for printing purposes.
- Both vertical and horizontal age bar graphs are provided to choose from for your personal preference.
- The race and ethnicity information listed and the corresponding census categories are Native American/Alaska Native (Native American/Alaska Native, non-Hispanic); Asian/Pacific Islander (Asian or Native Hawaiian/Pacific Islander, non-Hispanic); Black (Black or African-American, non-Hispanic); Latino/Latina (Hispanic ethnicity, regardless of race designation); White (white, non-Hispanic); and Not Specified (no race or ethnicity information was available).
- In figures where space is limited:
  - NA/AN = Native American/Alaska Native
  - A/PI = Asian/Pacific Islander
- The substantial amount of missing race/ethnicity data from the laboratory reports and CMRs limits the interpretation of race/ethnicity data. The majority of case reports originate from laboratories, a group which does not routinely collect data on race/ethnicity. Further, some managed care organizations and other health care service providers do not routinely record race/ethnicity of patients. The observed racial/ethnic disparities may reflect true differences in the infection rates, differential access to health care, and/or reporting practices of different types of providers that serve different populations.

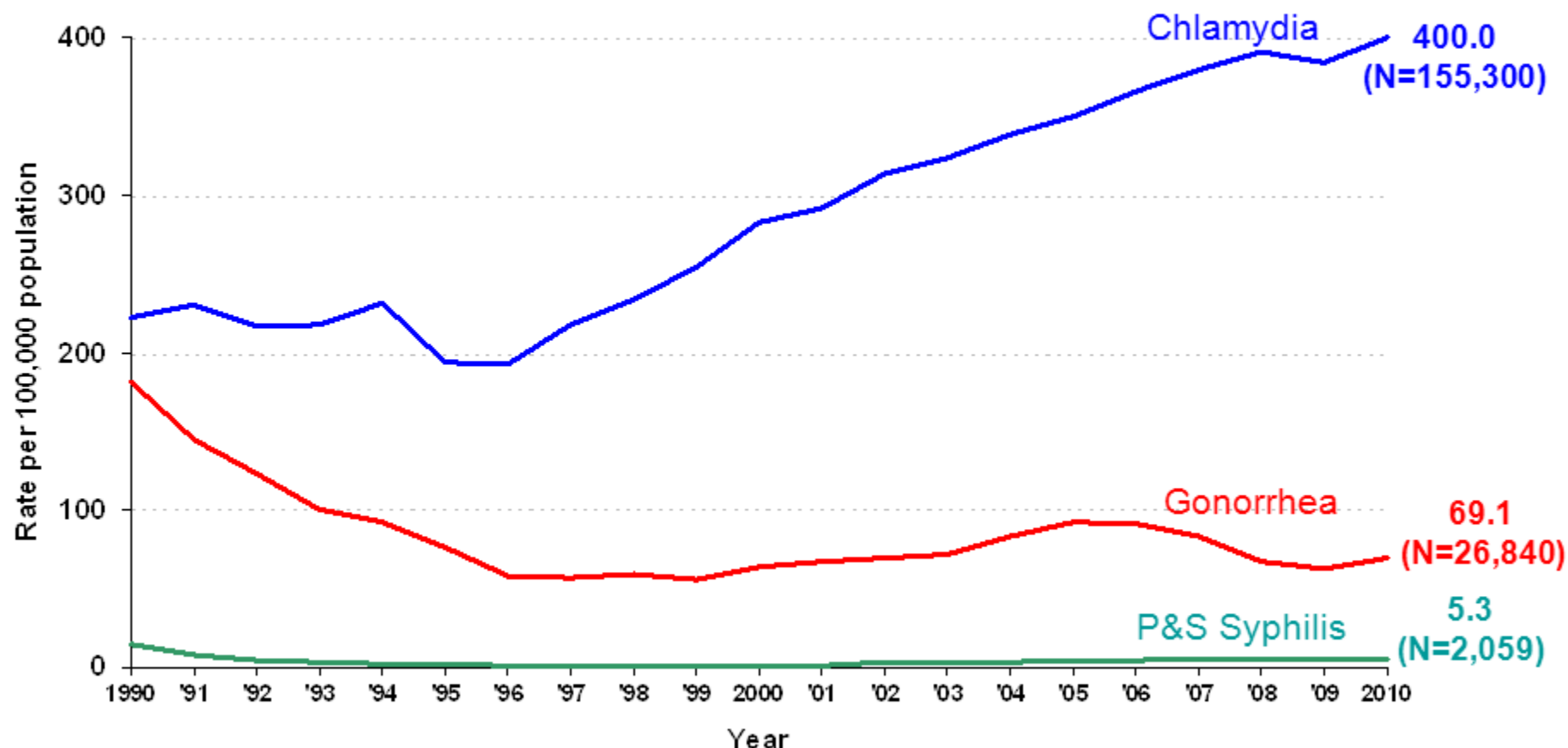
# STD Slide Set Notes

(continued)

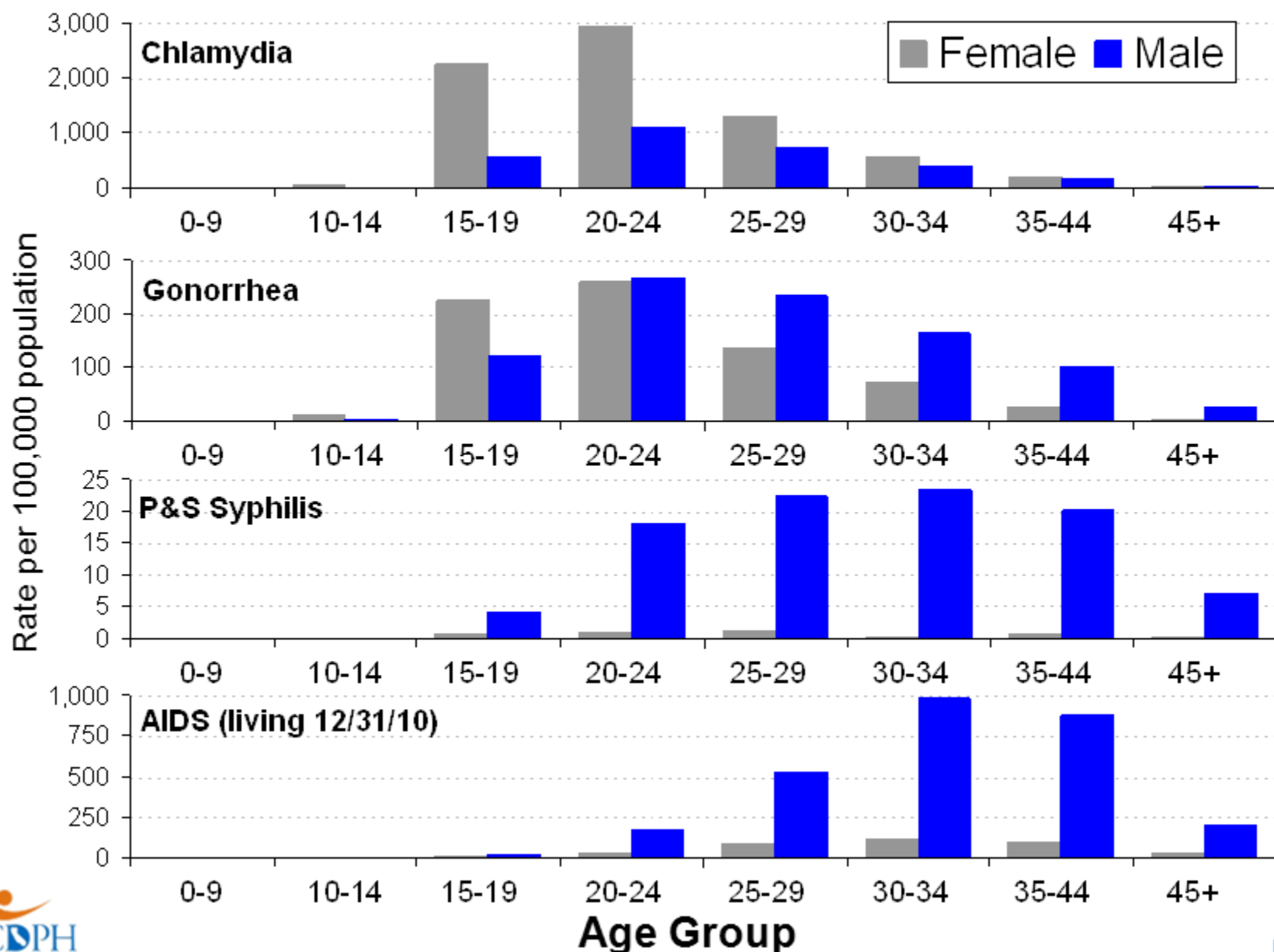
## California, 2010

- Increasing trends in chlamydia cases are difficult to interpret due to the asymptomatic nature of the disease, improved reporting by providers, expansion of screening programs across diverse health care settings, and increased availability of more sensitive diagnostic tests using nucleic acid amplification.
- For prevalence monitoring slides, percent positive in males is generally higher than females, not necessarily because the true prevalence is higher, but most likely because men seen in these venues are typically tested for symptomatic reasons whereas screening programs exist for women.
- More recent data on major trends can be found in the quarterly updated graph set.

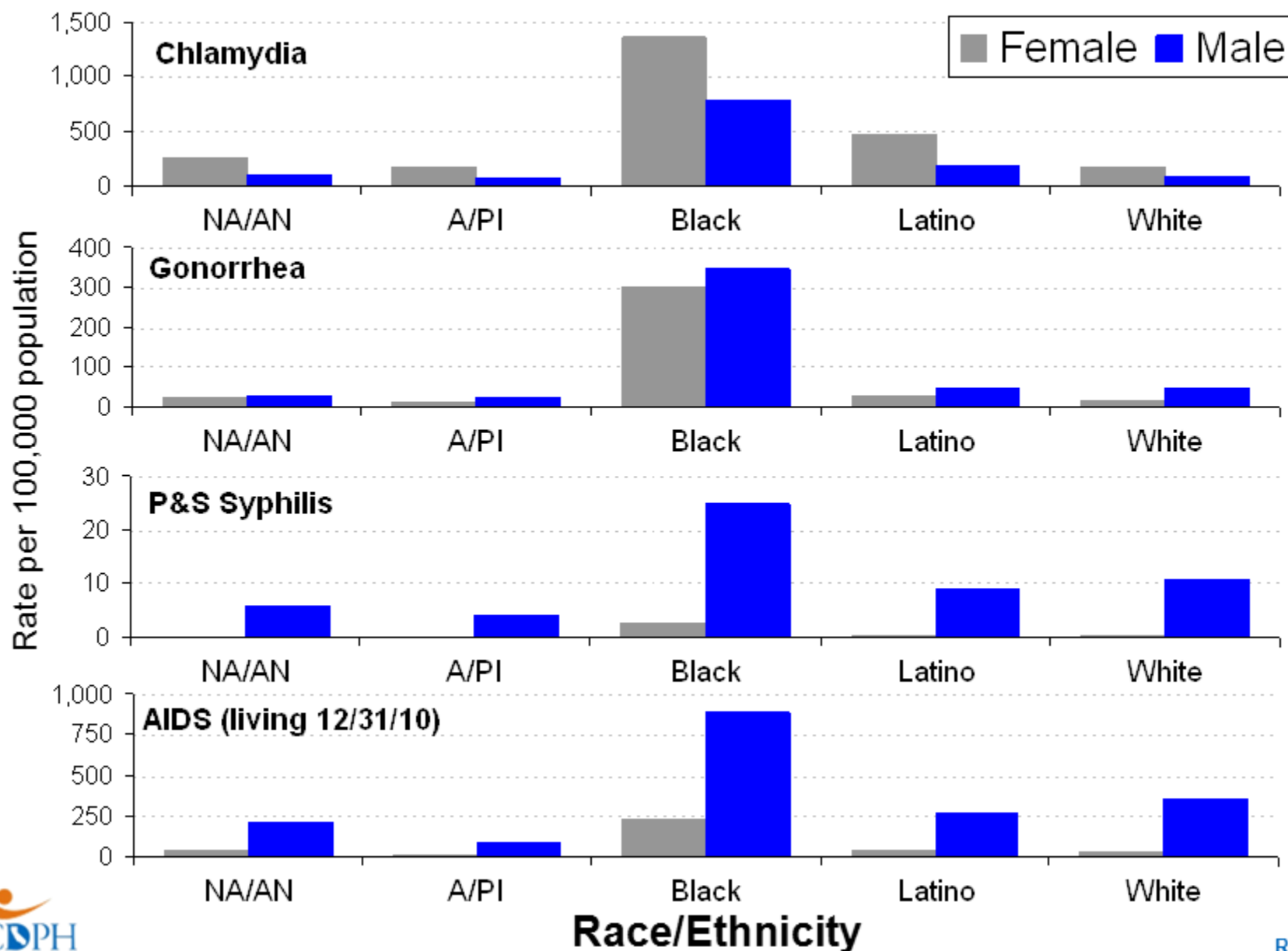
## Chlamydia, Gonorrhea, and Primary & Secondary Syphilis California Rates, 1990–2010



# Rates of Chlamydia, Gonorrhea, P&S Syphilis, and AIDS by Age Group (in years) and Gender — California, 2010



# Rates of Chlamydia, Gonorrhea, P&S Syphilis, and AIDS by Race/Ethnicity and Gender — California, 2010

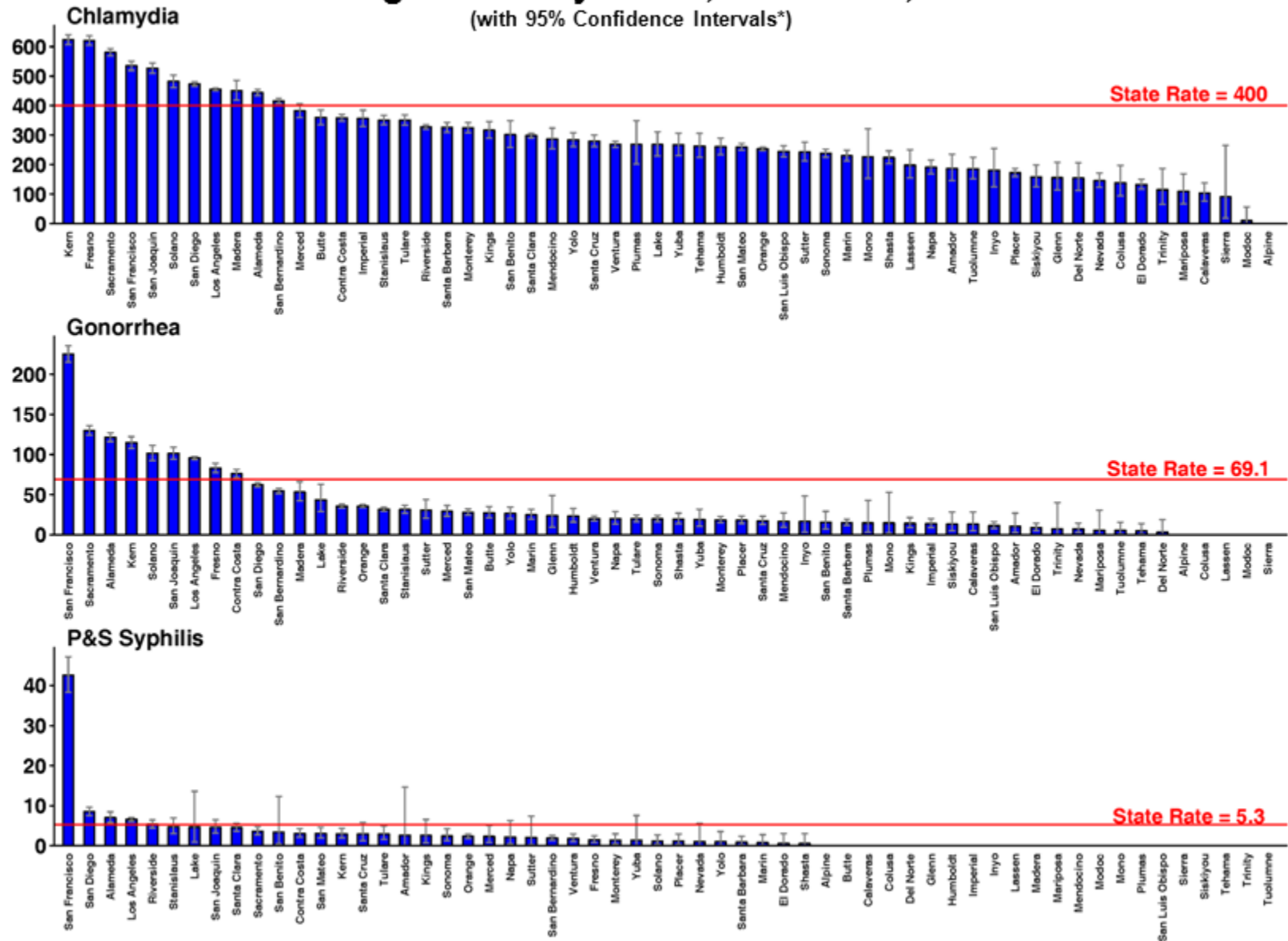


Note: NA/AN = Native American/Alaskan Native, A/PI = Asian/Pacific Islander

Rev. 8/2011

STD Control Branch

# Chlamydia, Gonorrhea, and P&S Syphilis Ranking of County Rates, California, 2010 (with 95% Confidence Intervals\*)



\* Confidence intervals were calculated using Poisson exact method; not shown for counties with zero cases.

Note: Rates are per 100,000 population.

Source: California Department of Public Health, STD Control Branch

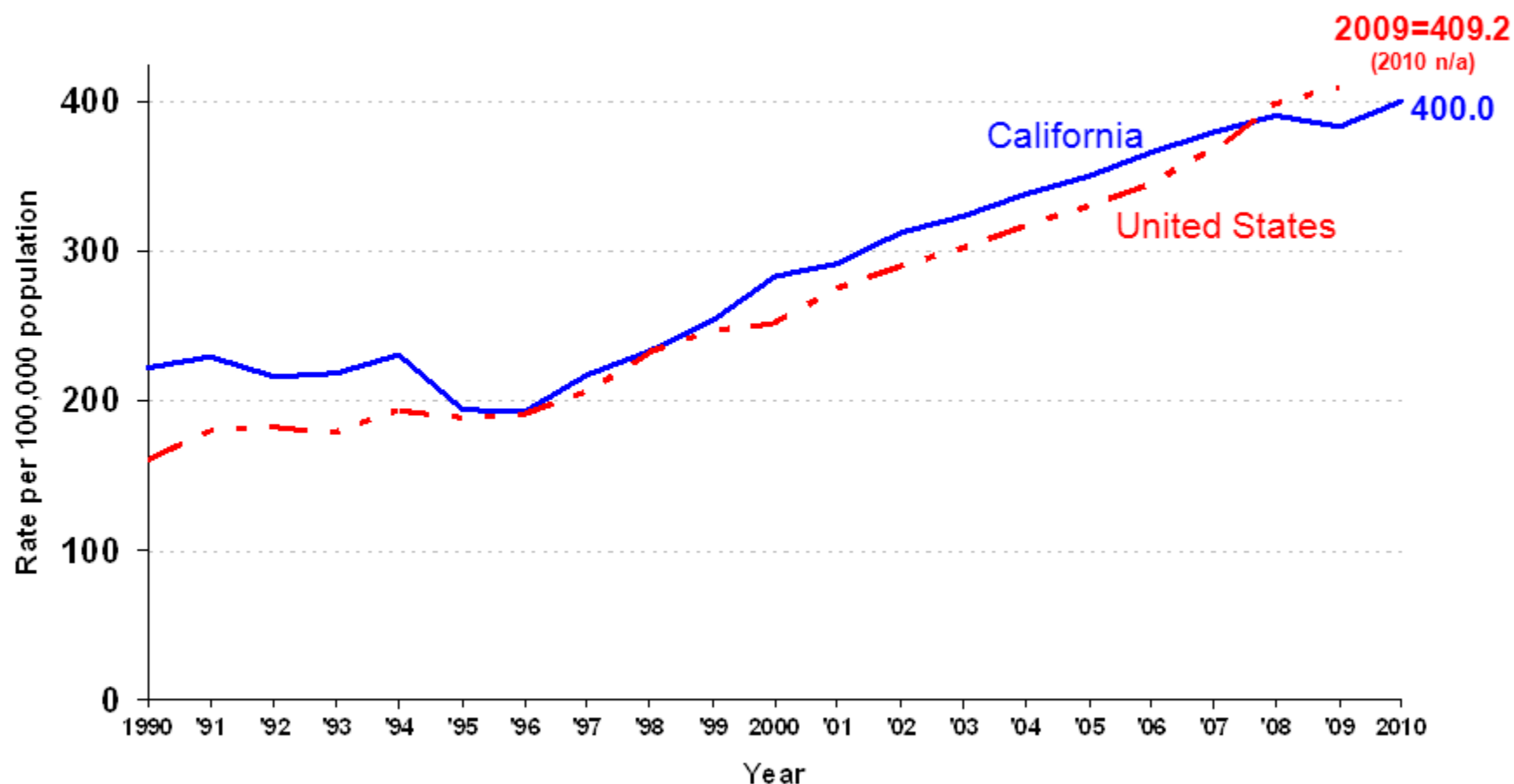
Rev. 7/2011

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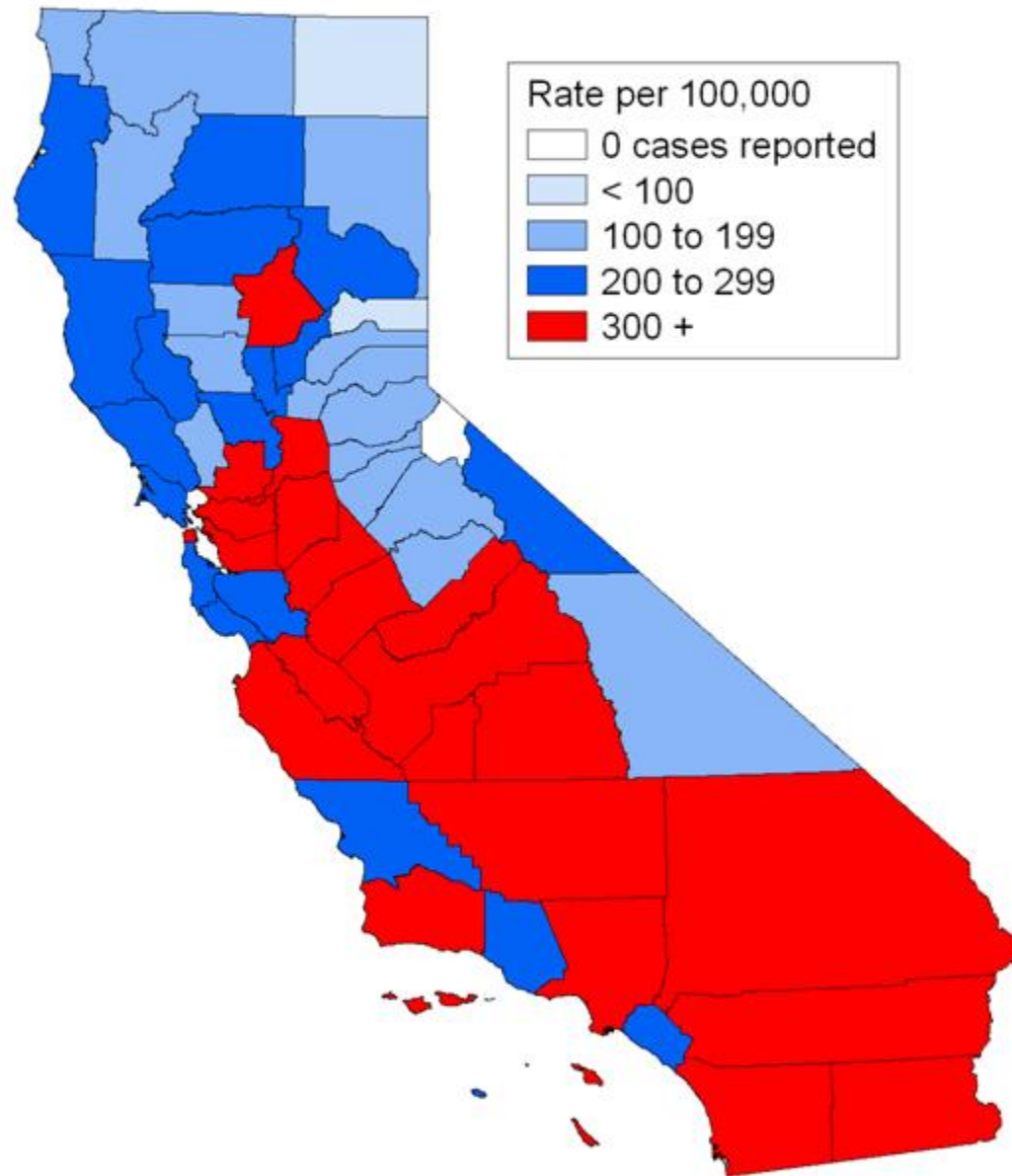
# Chlamydia



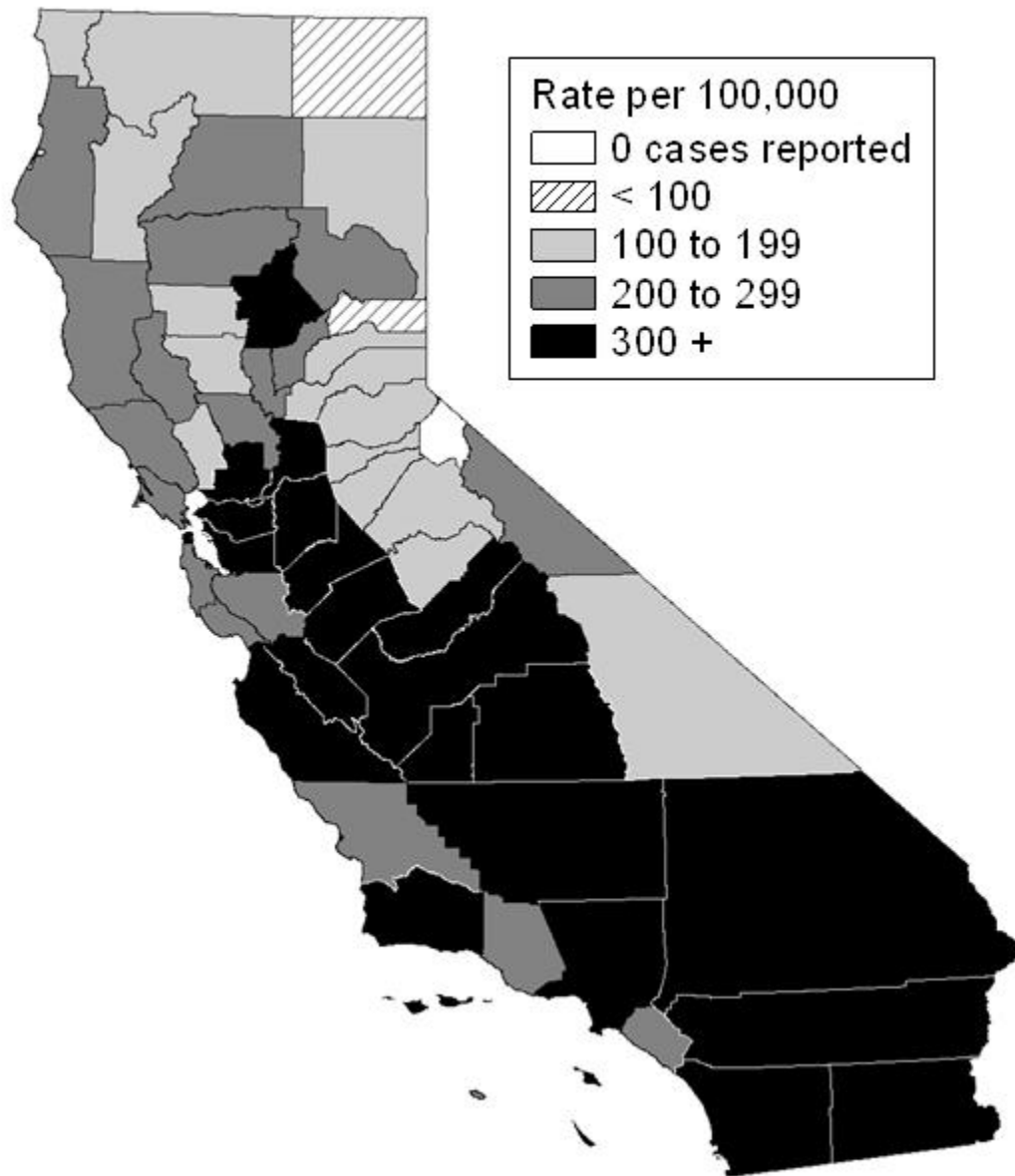
## Chlamydia, California versus United States Rates, 1990–2010



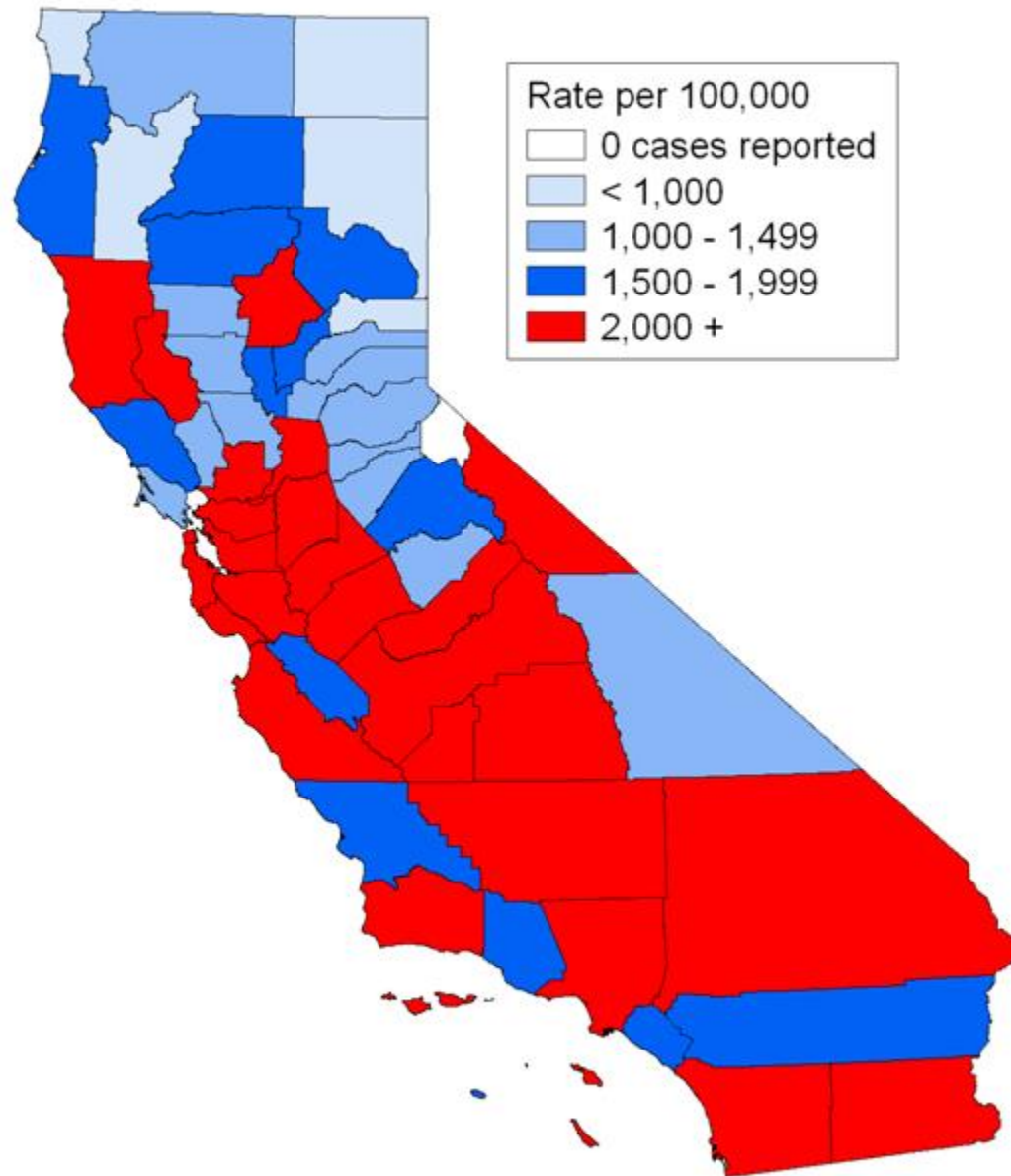
## Chlamydia, Rates by County, California, 2010



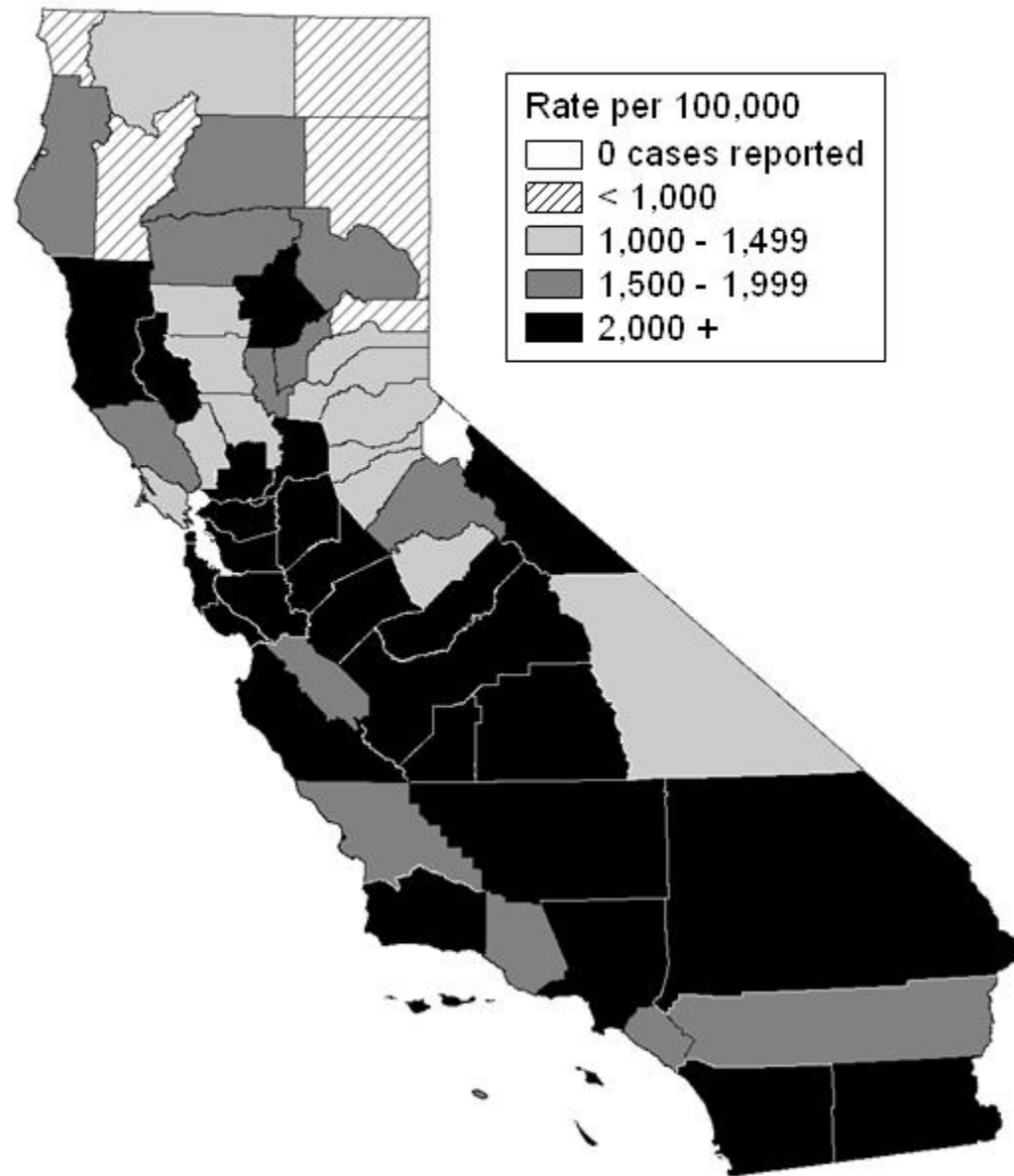
## Chlamydia, Rates by County, California, 2010



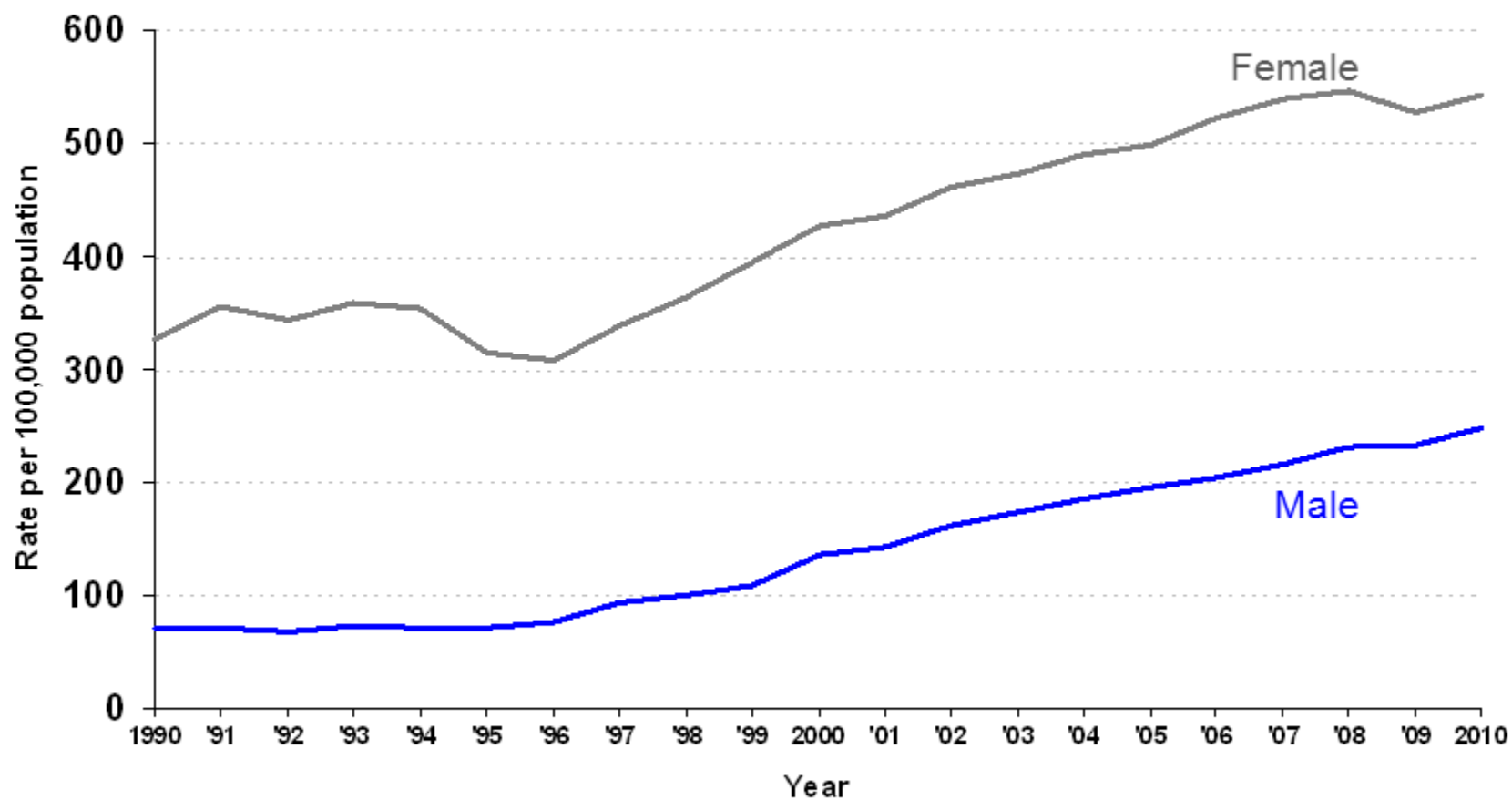
## Chlamydia among Females Ages 15-24, Rates by County, California, 2010



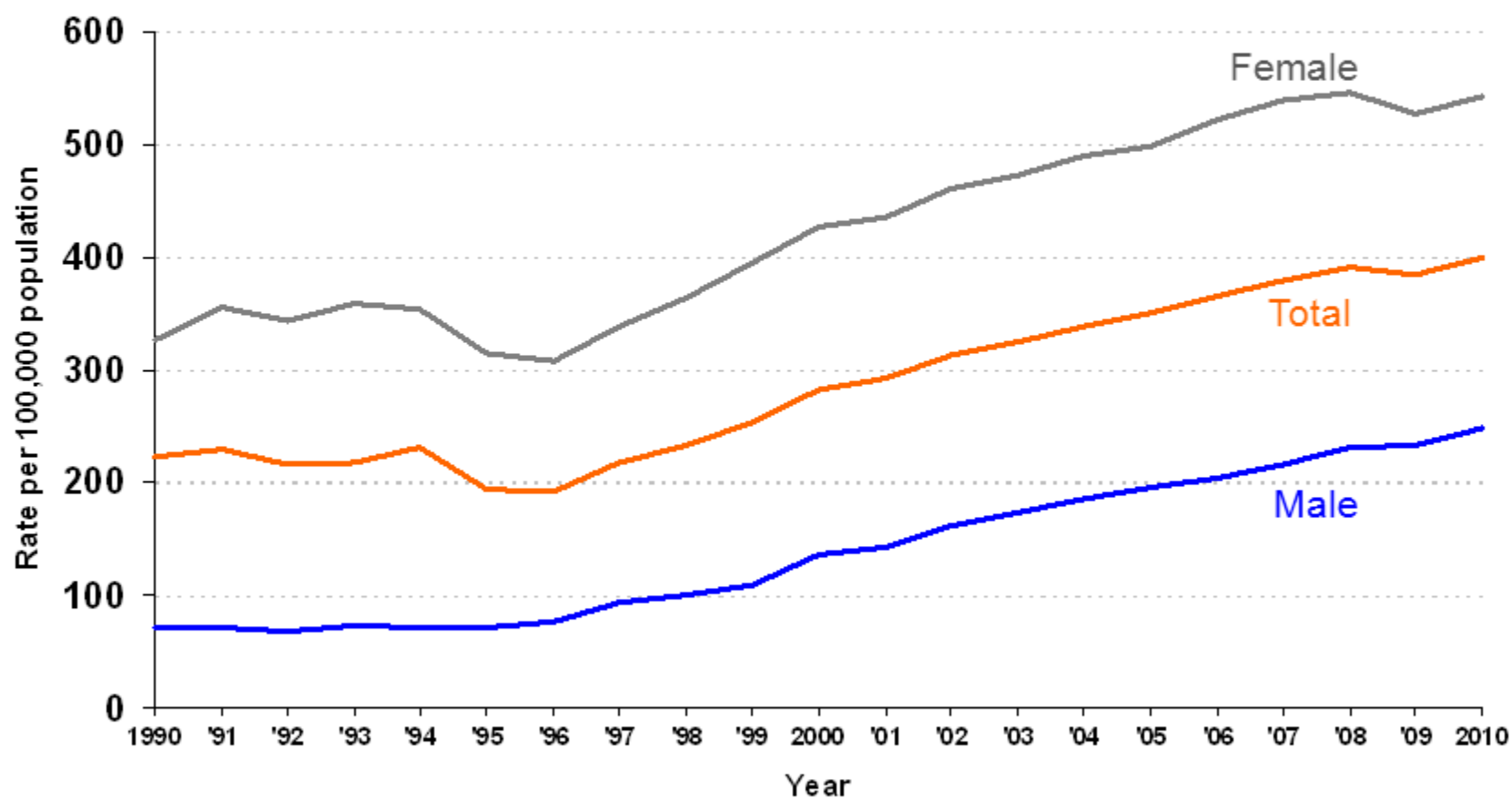
## Chlamydia among Females Ages 15-24, Rates by County, California, 2010



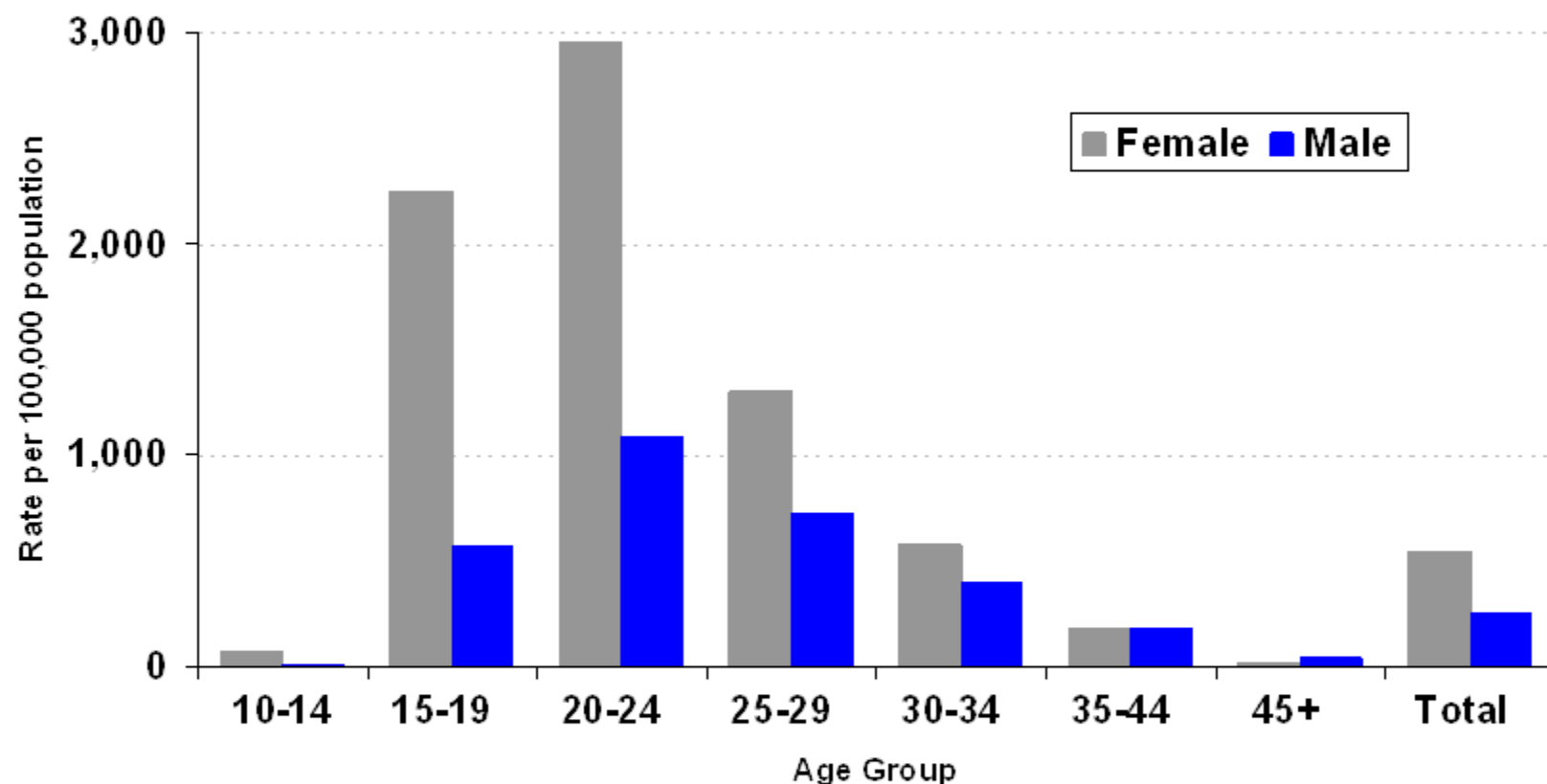
## Chlamydia, Rates by Gender, California, 1990–2010



## Chlamydia, Rates by Gender, California, 1990–2010



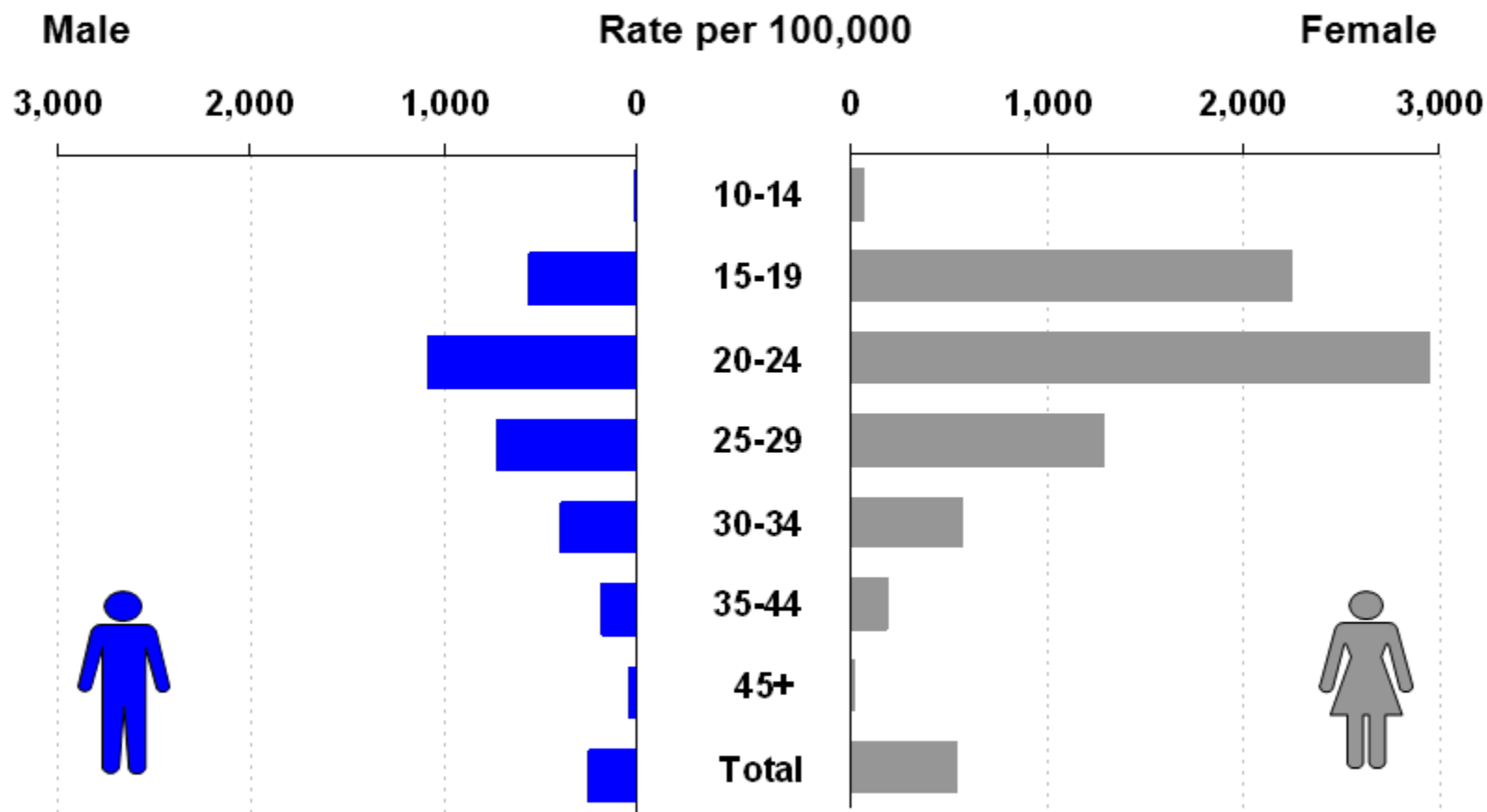
## Chlamydia, Rates by Gender and Age Group (in years) California, 2010



Note: Age was "Not Specified" for 0.3% of female cases and 0.3% of male cases for the given year. Since this disease is often asymptomatic, reported cases may reflect chlamydial infections identified through screening programs offered primarily to women.

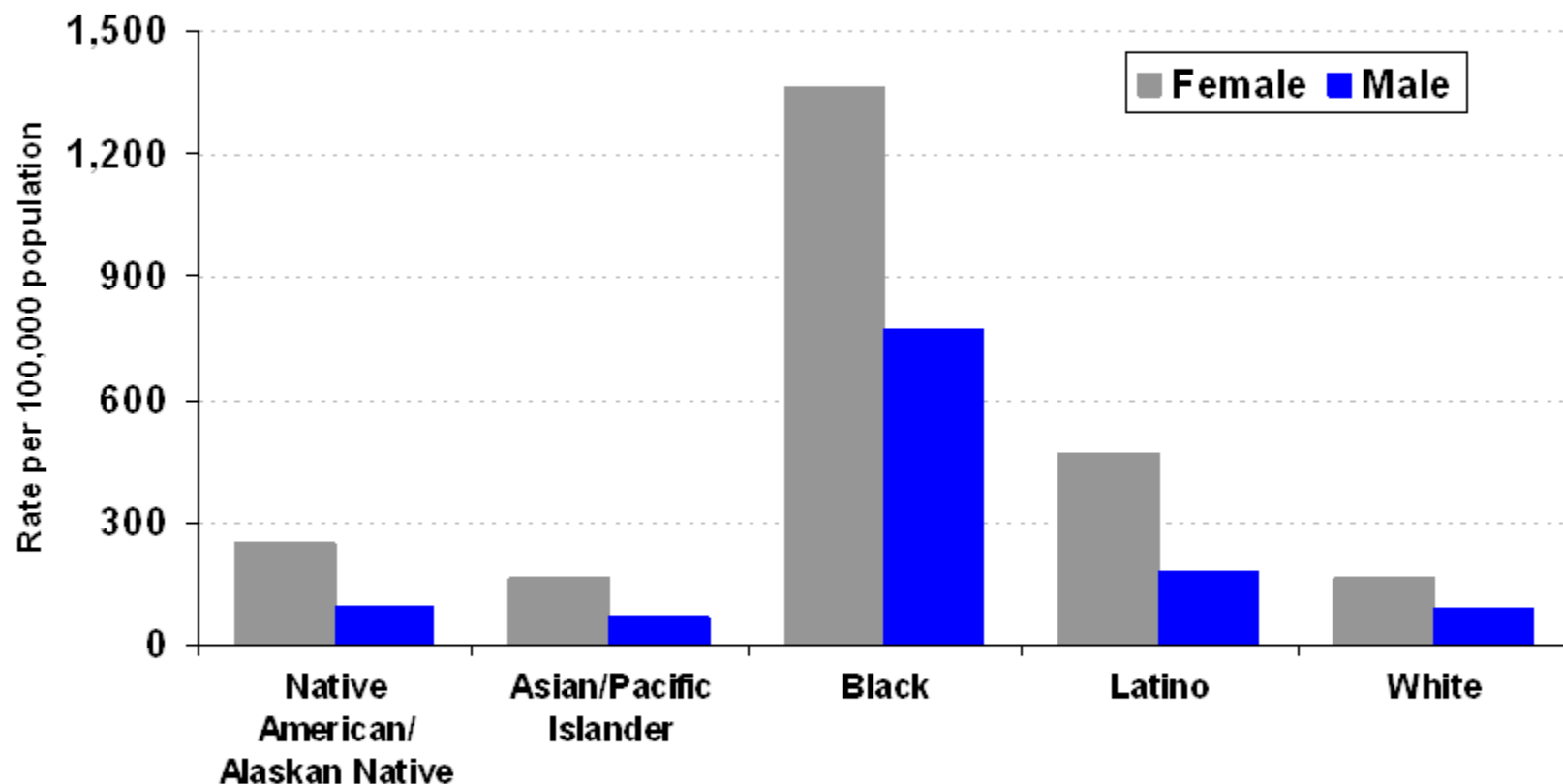


## Chlamydia, Rates by Gender and Age Group (in years) California, 2010



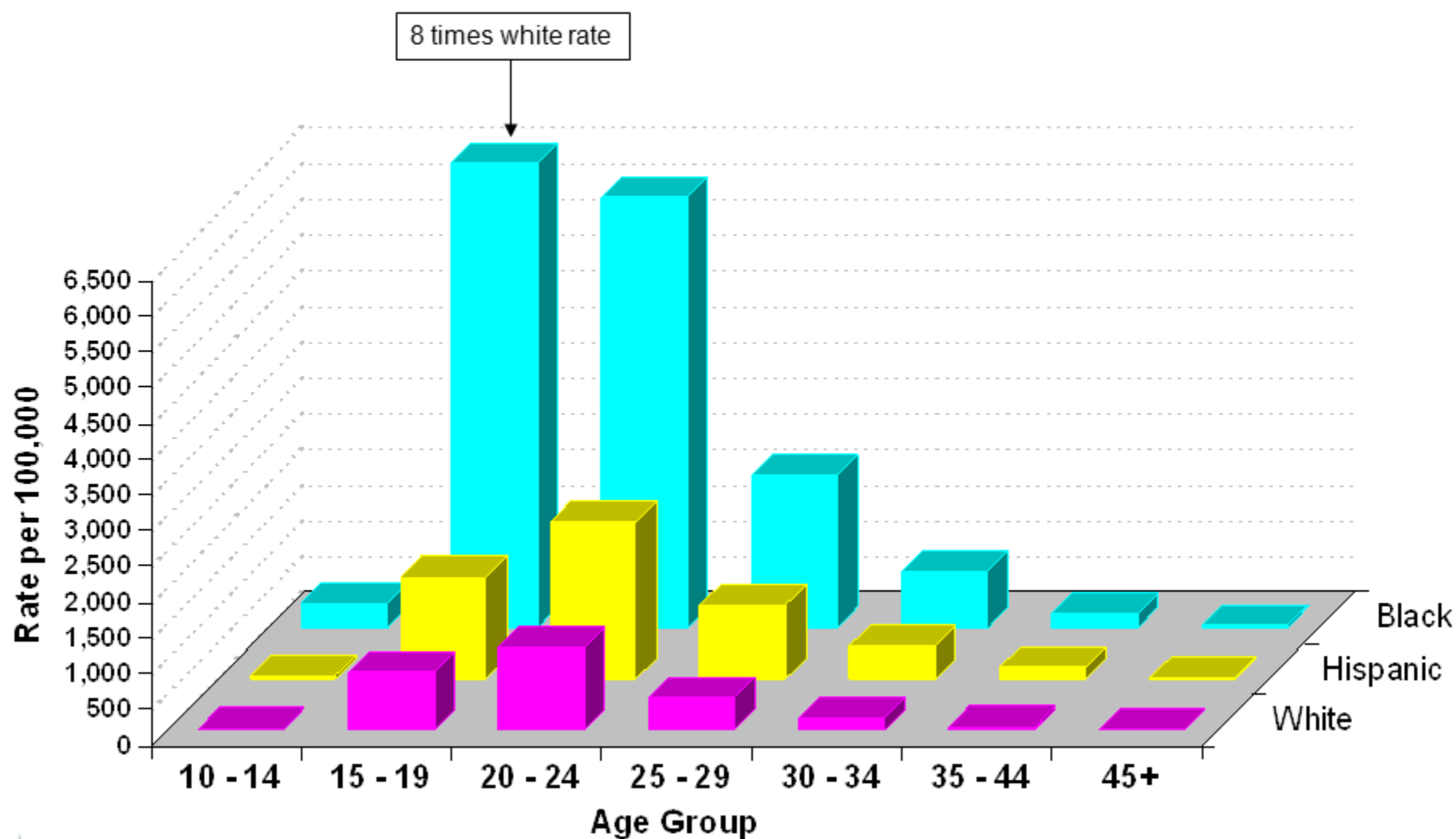
Note: Age was "Not Specified" for 0.3% of female cases and 0.3% of male cases for the given year. Since this disease is often asymptomatic, reported cases may reflect chlamydial infections identified through screening programs offered primarily to women.

## Chlamydia, Rates by Gender and Race/Ethnicity California, 2010

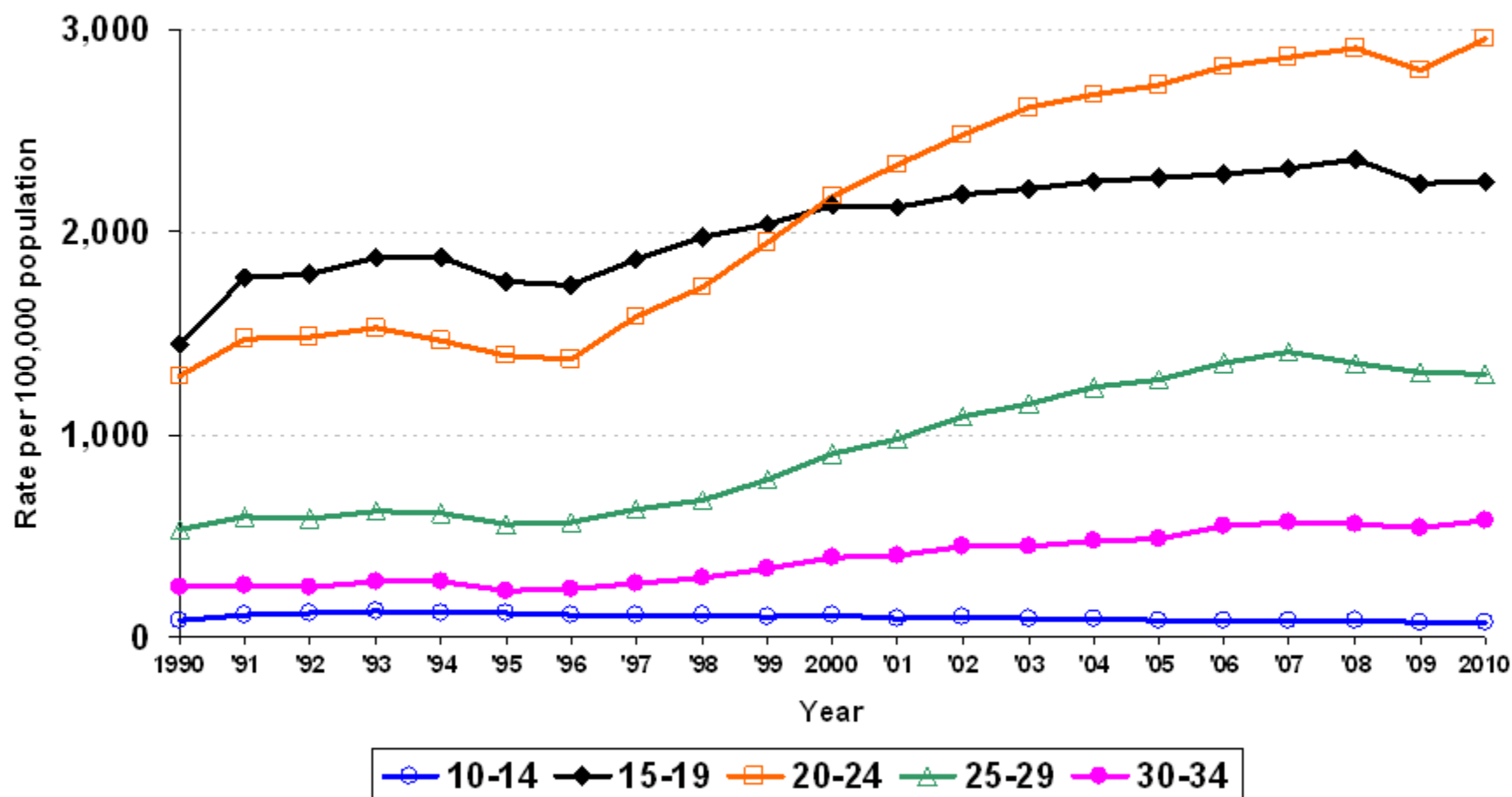


Note: Race/Ethnicity was "Not Specified" for 36.9% of female cases and 35.5% of male cases for the given year. Since this disease is often asymptomatic, reported cases may reflect chlamydial infections identified through screening programs offered primarily to women.

## Chlamydia, Female Rates by Race/Ethnicity and Age Group (in years) California, 2010

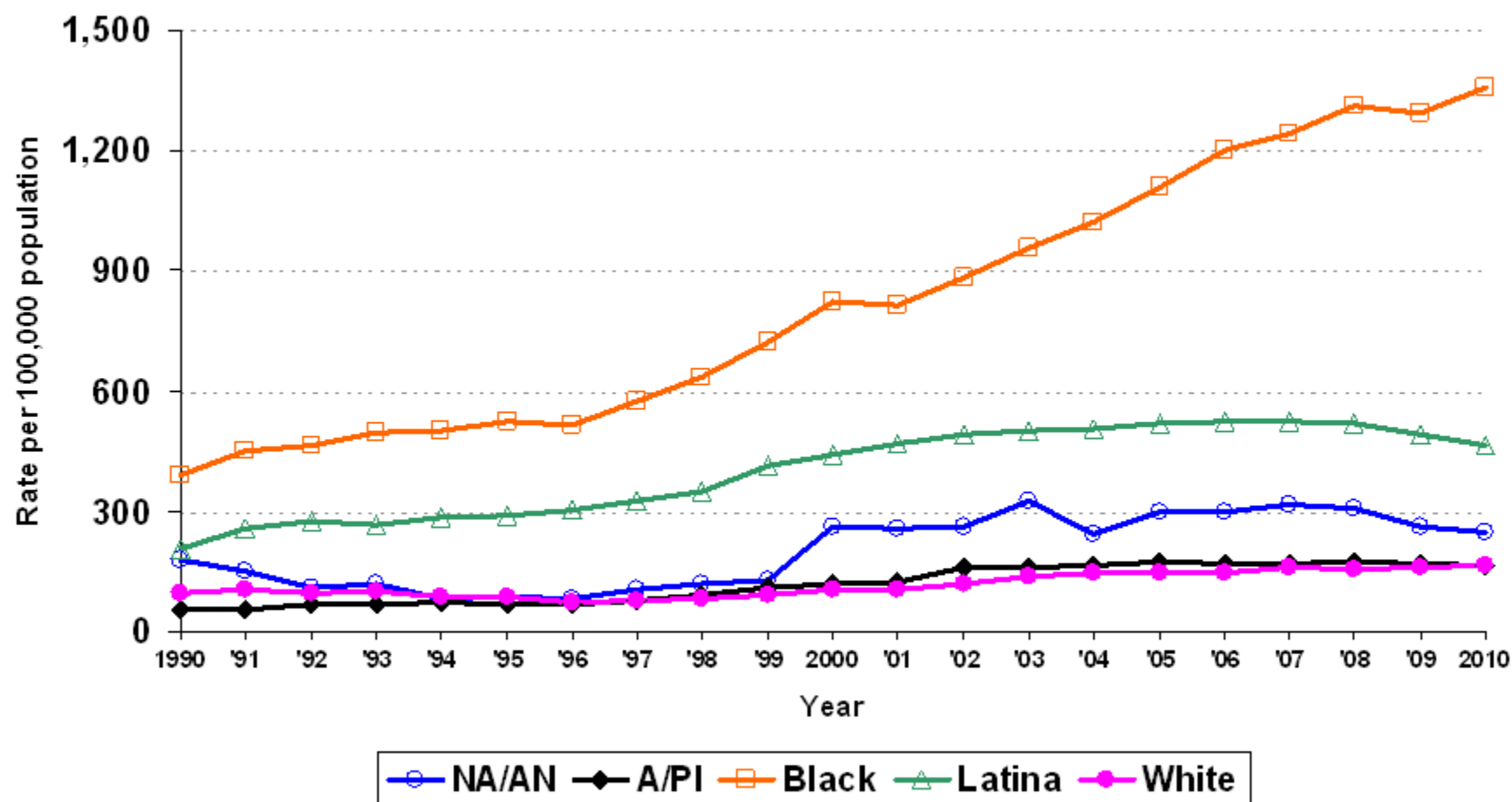


## Chlamydia, Rates for Females by Age Group (in years) California, 1990–2010



Note: Age "Not Specified" ranged from 0.3% to 8.3% of cases for females in any given year.

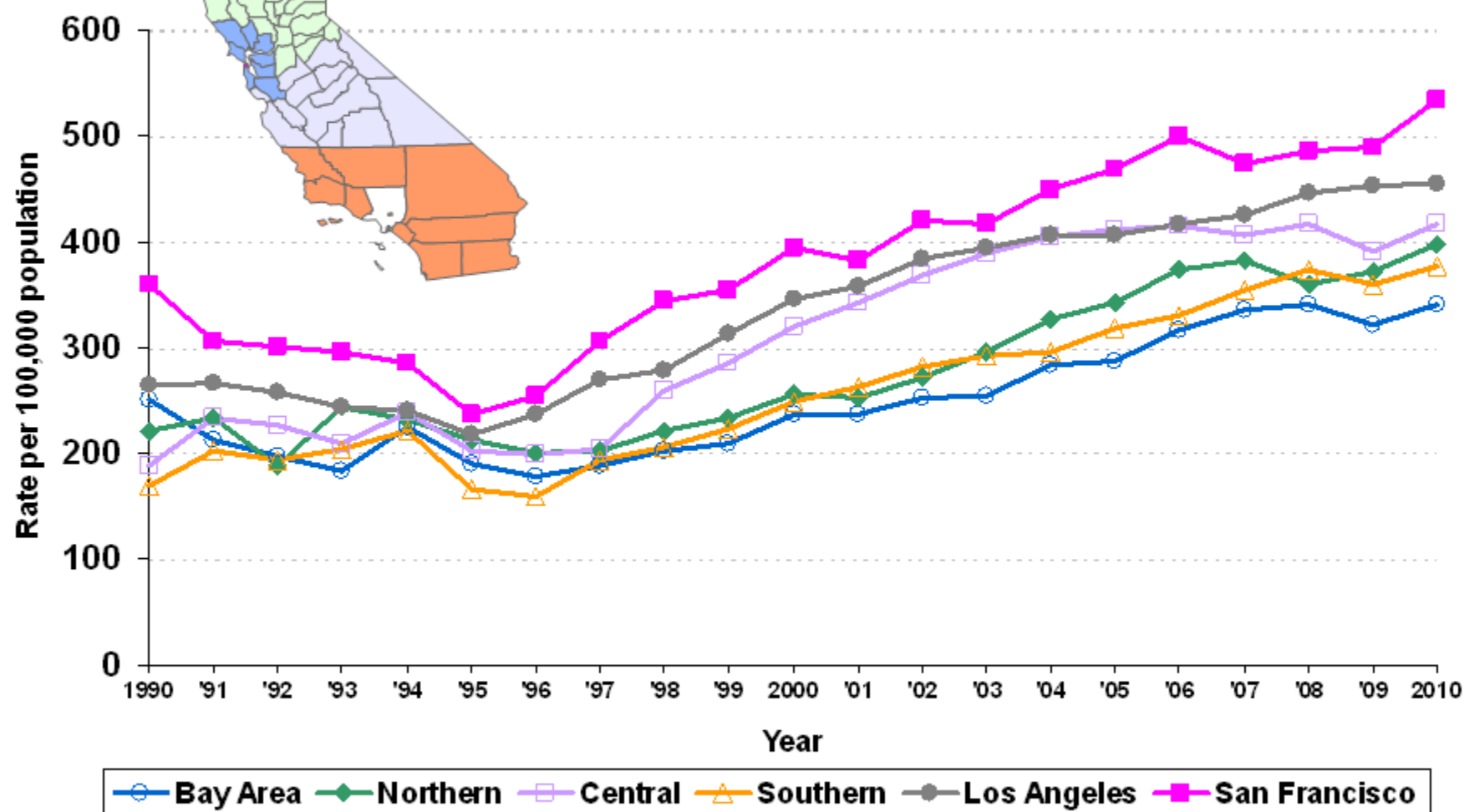
## Chlamydia, Rates for Females by Race/Ethnicity California, 1990–2010



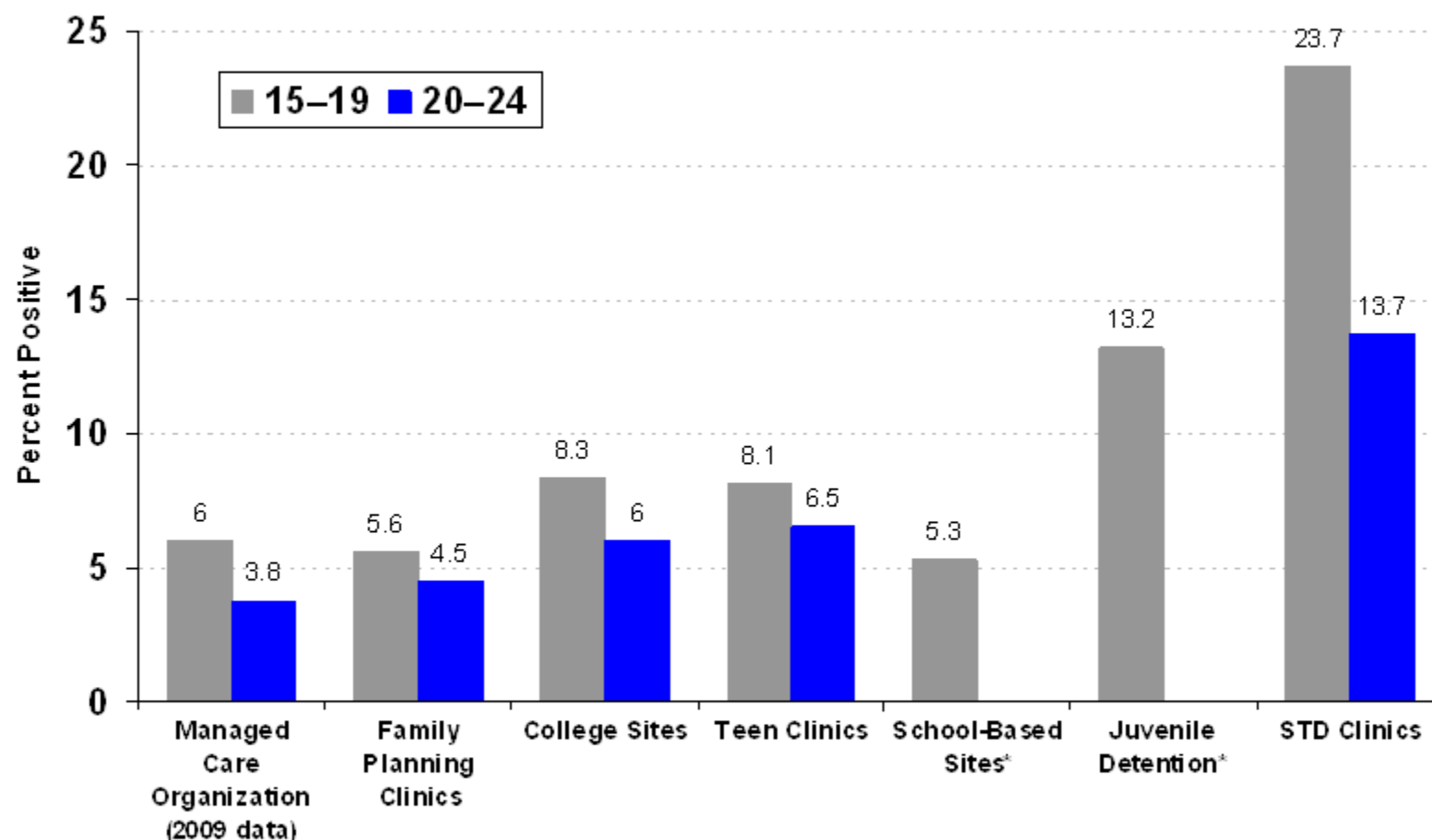
Note: NA/AN = Native American/Alaskan Native, A/PI = Asian/Pacific Islander.

Race/ethnicity "Not Specified" ranged from 32.6% to 56.3% of cases for females in any given year.

## Chlamydia, Rates by Region California, 1990–2010



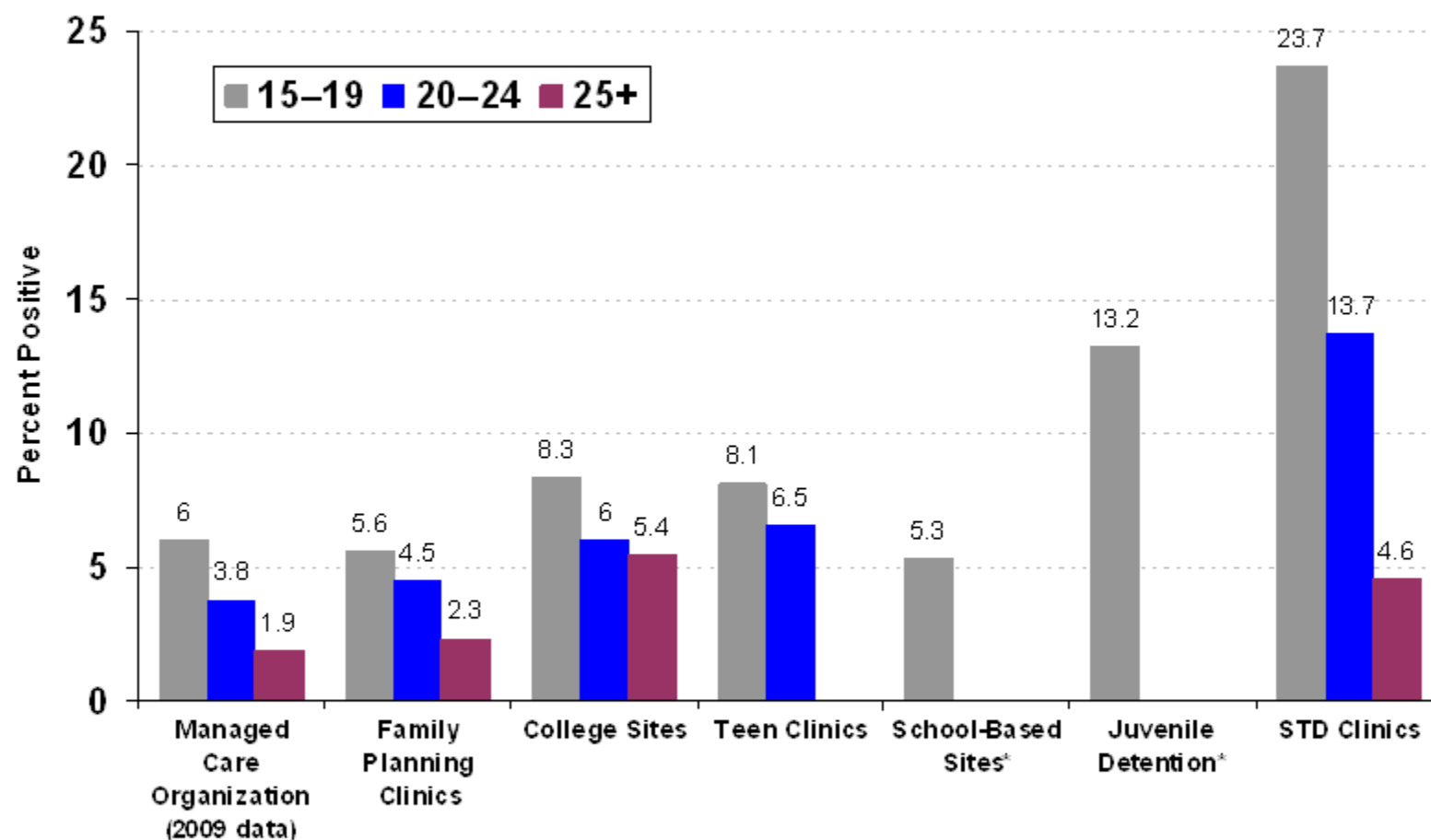
## Chlamydia Prevalence Monitoring, Percent Positive for Females Ages 15–19 and 20–24 Years, by Health Care Setting, California, 2010



\* These two venues target adolescents primarily.

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

## Chlamydia Prevalence Monitoring, Percent Positive for Females by Age Group (in years) and Health Care Setting, California, 2010

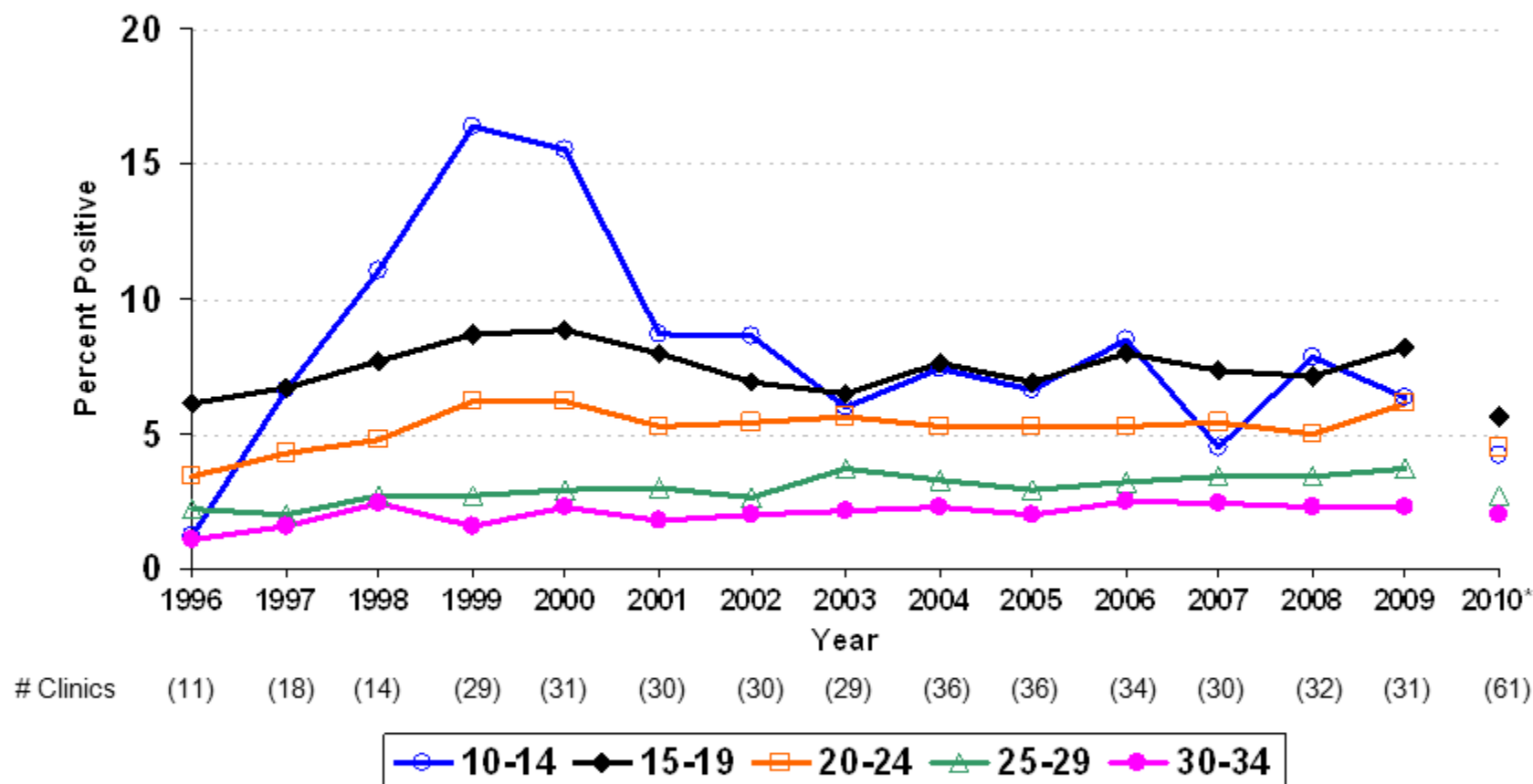


\* These two venues target adolescents primarily.

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project



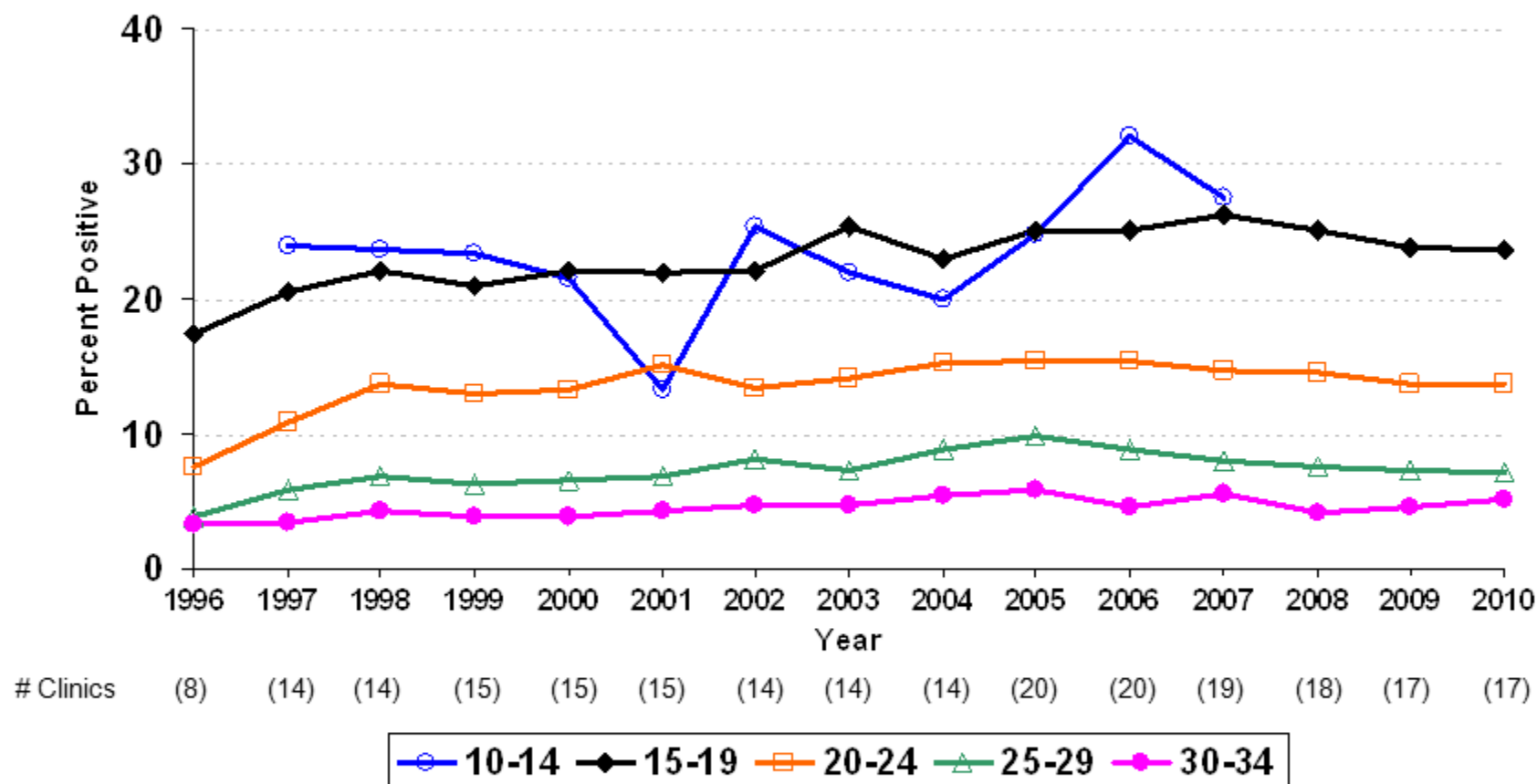
# Chlamydia Prevalence Monitoring, Percent Positive for Females at Family Planning Clinics, by Age Group (in years), 1996–2010



\* The 2010 prevalence may not be consistent with prior years' data due to the impact of major changes in the data transmission process (including a much larger number of sites).

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

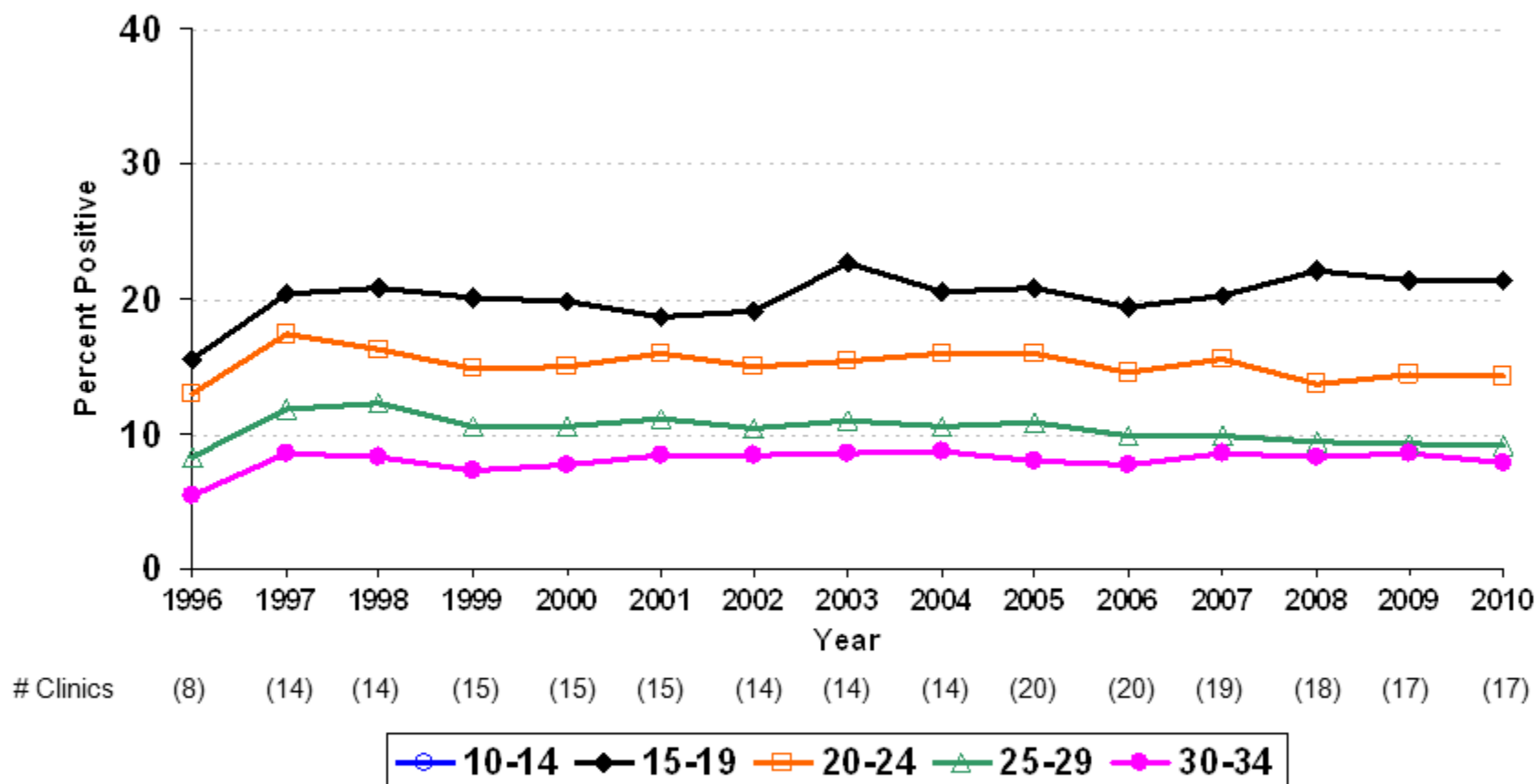
## Chlamydia Prevalence Monitoring, Percent Positive for Females at STD Clinics, by Age Group (in years), 1996–2010



Note: Age group 10-14 not graphed in 1996 and 2008-2010, due to fewer than 50 tests.

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

## Chlamydia Prevalence Monitoring, Percent Positive for Males\* at STD Clinics, by Age Group (in years), 1996–2010

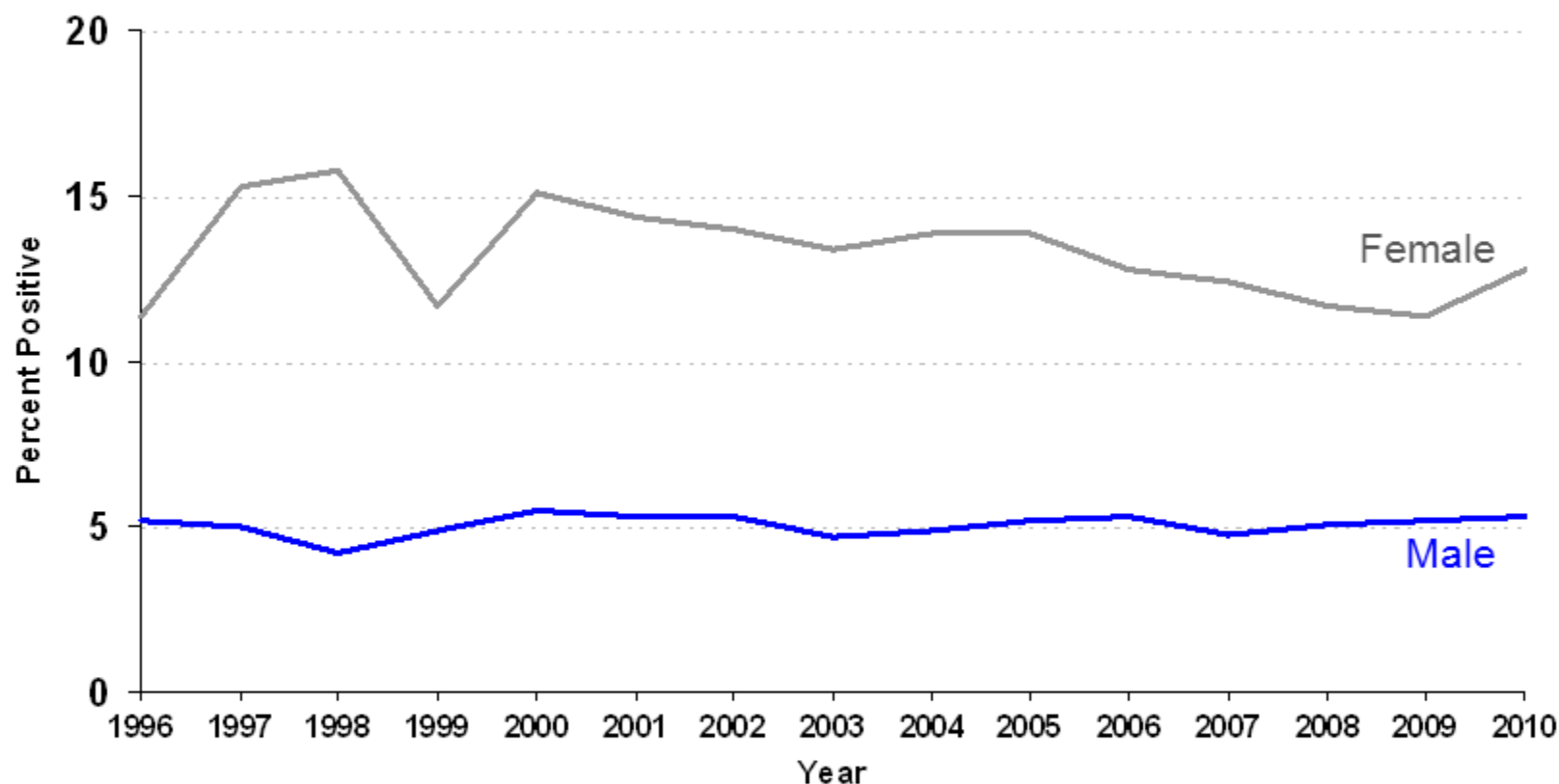


\* Male data may disproportionately reflect symptomatic or exposure-based testing, and likely overstates prevalence.

Note: Age group 10-14 not graphed due to fewer than 50 tests.

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

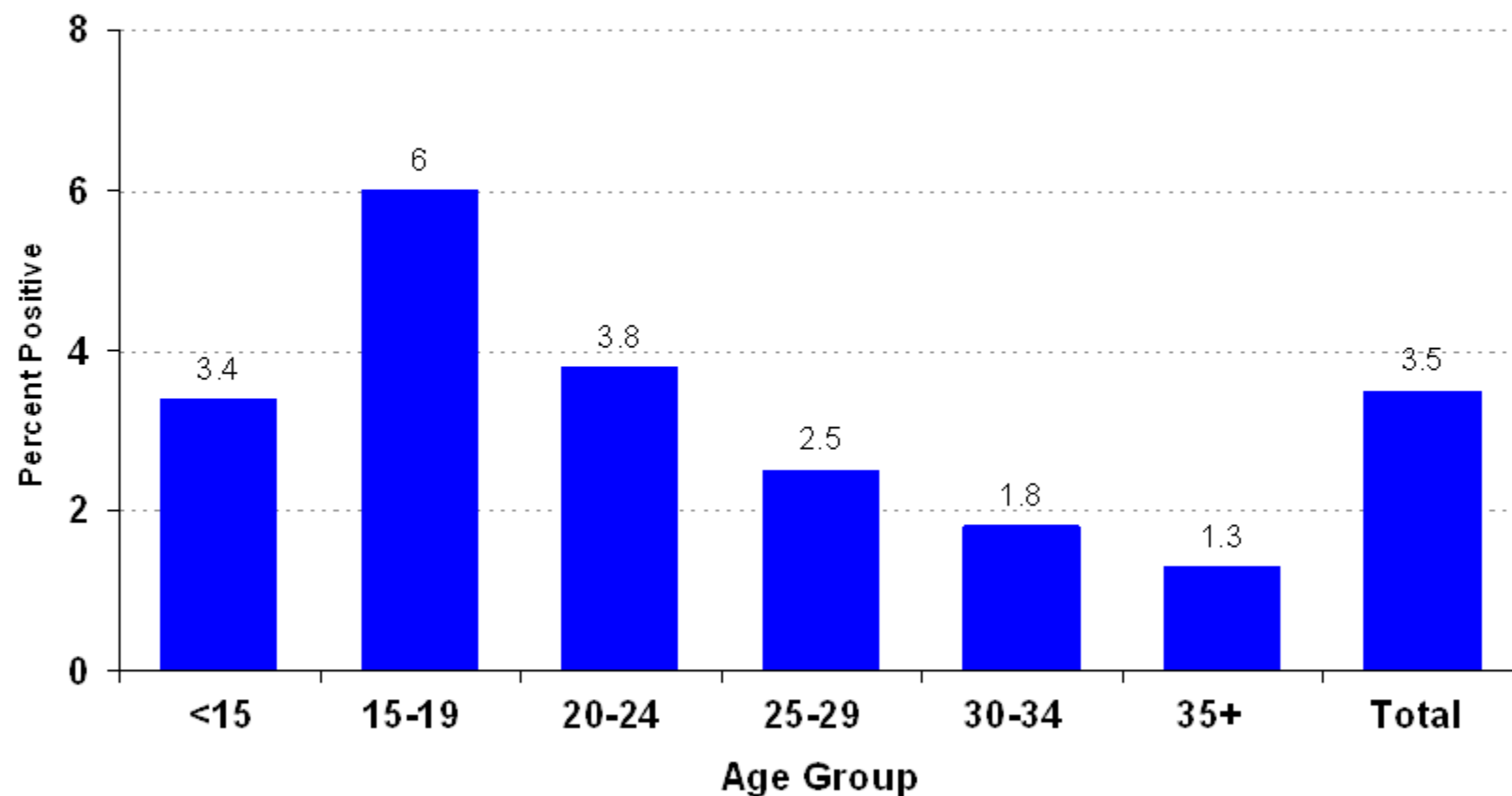
## Chlamydia Prevalence Monitoring, Percent Positive at Juvenile Detention Facilities, by Gender, 1996–2010



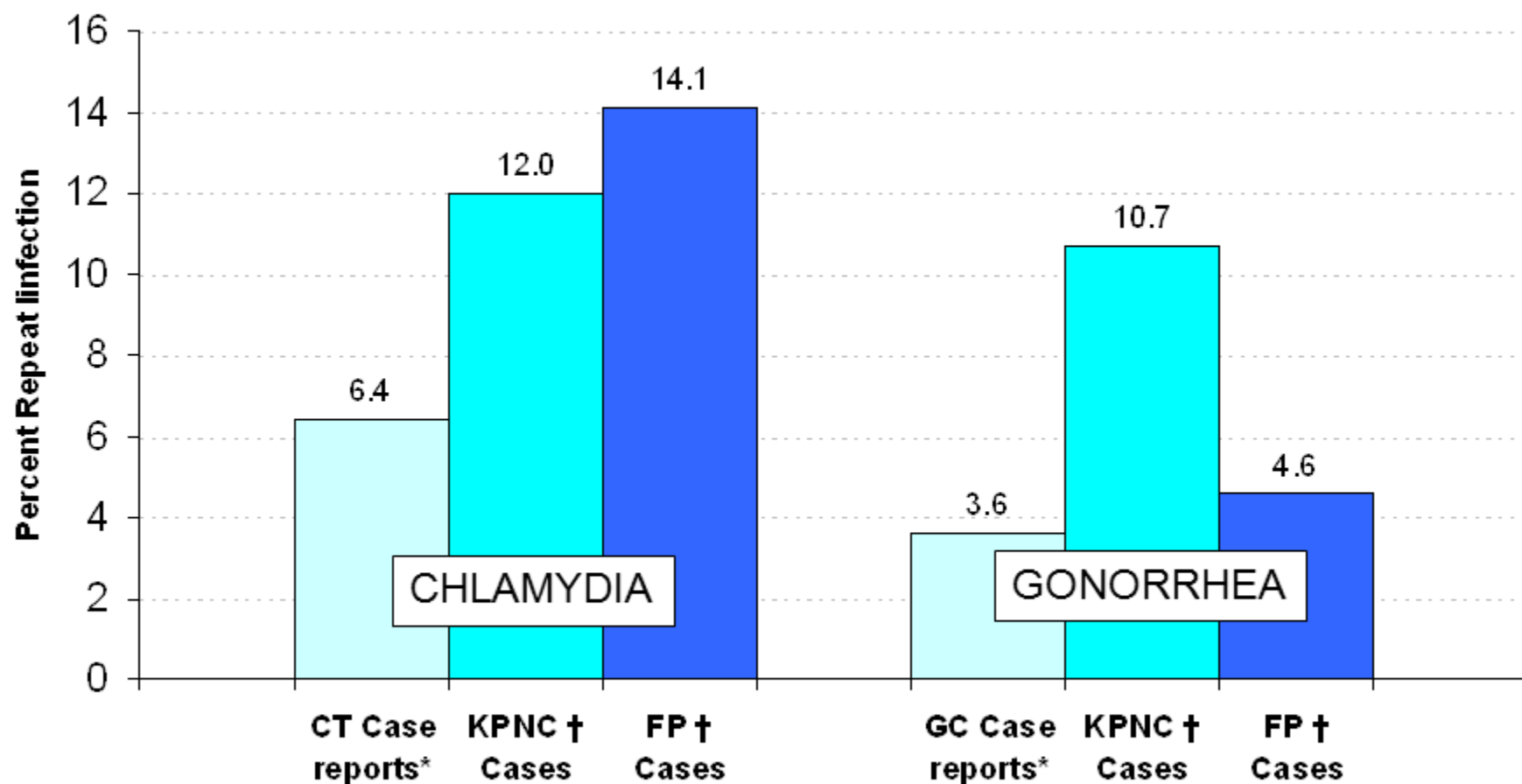
# Sites	Female	(2)	(6)	(6)	(6)	(6)	(5)	(20)	(22)	(25)	(25)	(26)	(26)	(28)	(27)	(25)
	Male	(2)	(4)	(4)	(5)	(5)	(4)	(20)	(22)	(25)	(22)	(21)	(19)	(19)	(17)	(12)

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

## Chlamydia Prevalence Monitoring, Percent Positive for Females in a Northern California Managed Care Organization, by Age Group (in years), 2009



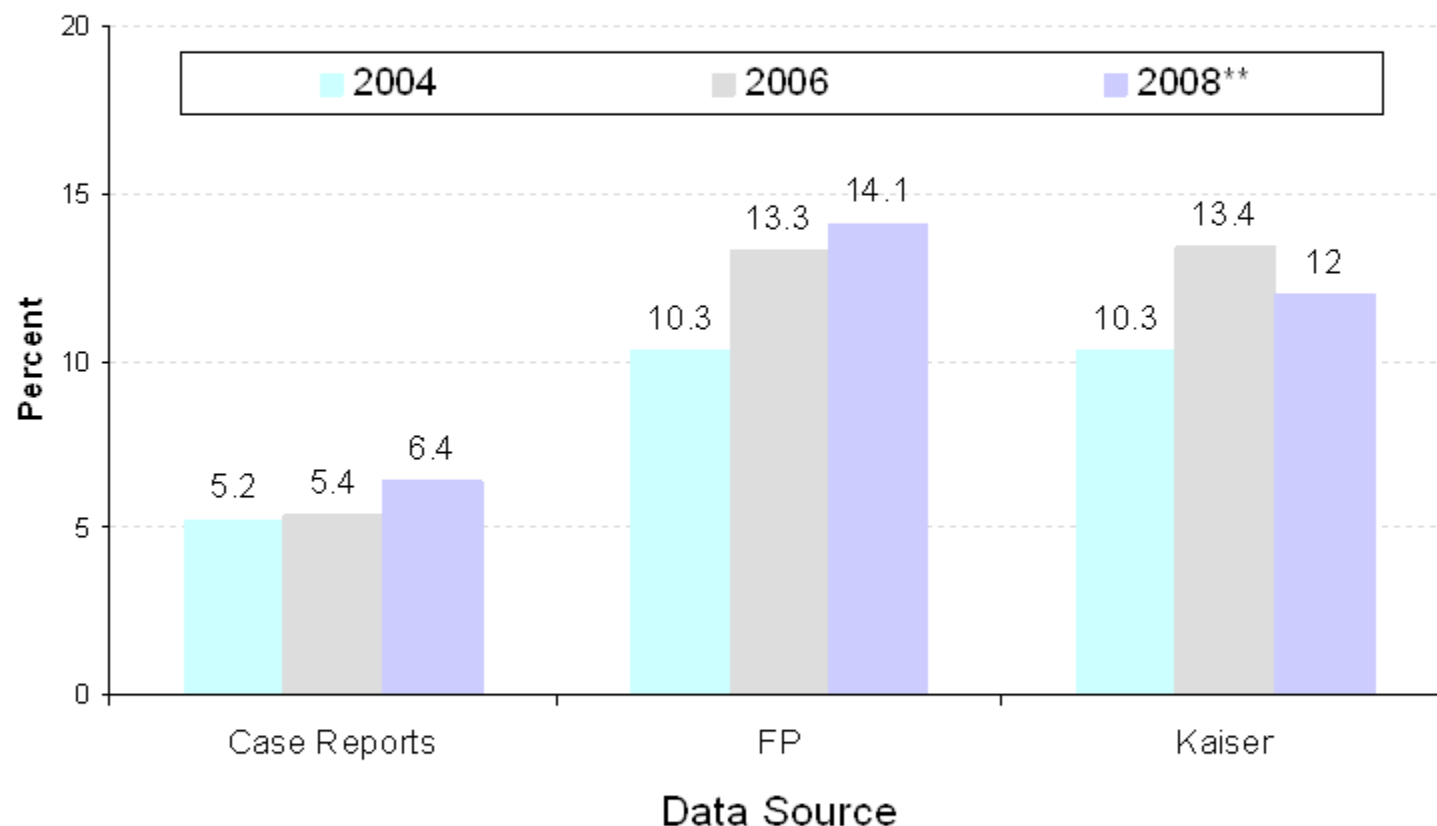
# Chlamydia and Gonorrhea Repeat Infection among Females 1-6 months after infection by Data Source, 2007–2008



\* Percent of first repeat case report or infection within 1-6 months. Excludes Los Angeles and San Francisco case reports as names were not available.

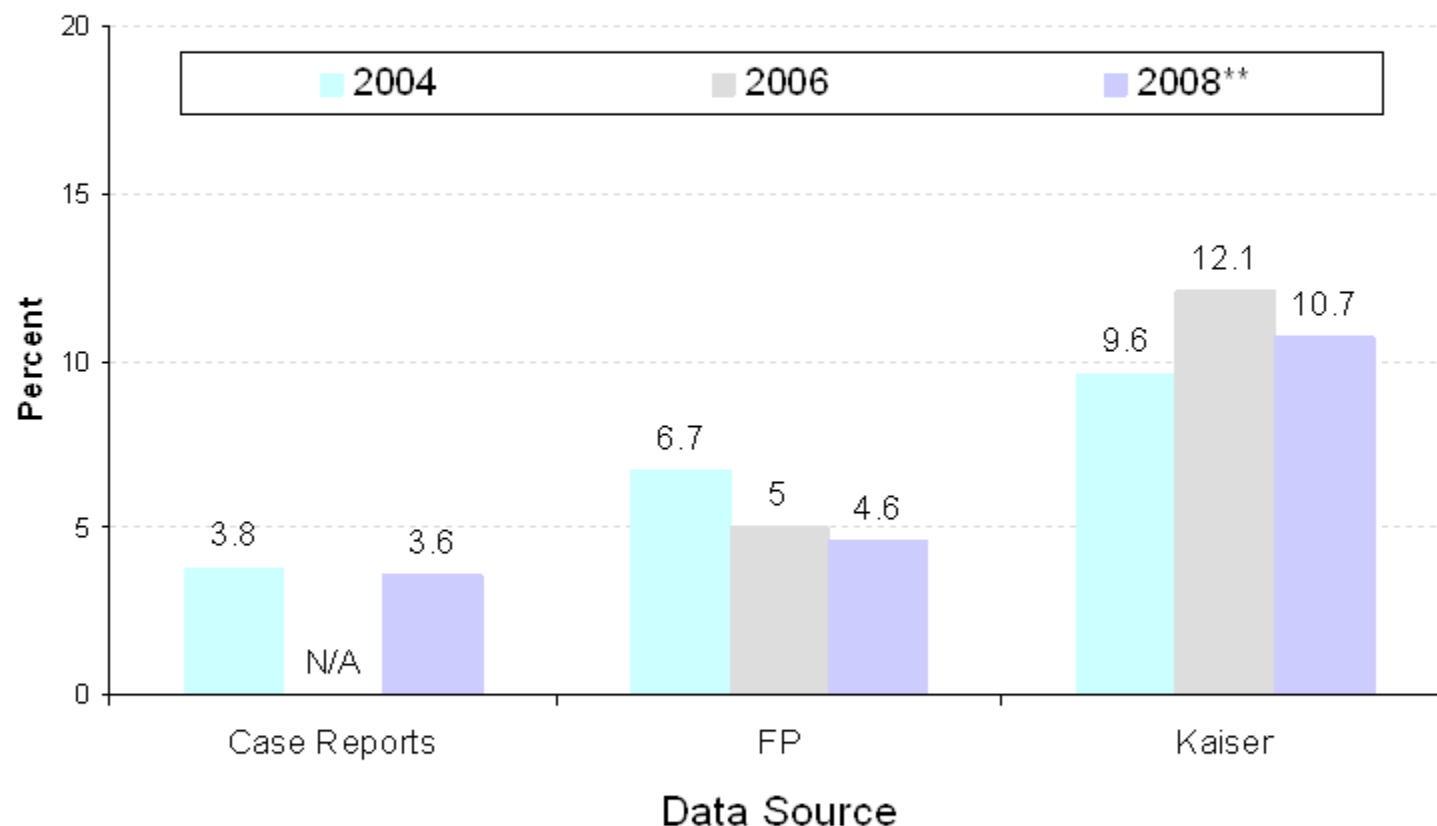
† 2008 repeat case reports; 2007 case repeat infection for KPNC and FP.

## Repeat Chlamydia Infection by Data Source, Females, California, 2004–2008



Source: California DPH STD Control Branch (Excludes SF and LA, 2004-2008); \*\*California DPH Office of Family Planning-Quest Diagnostics (2004, 2006, 2007); \*\*Kaiser Permanente Northern CA (2004, 2006, 2007)

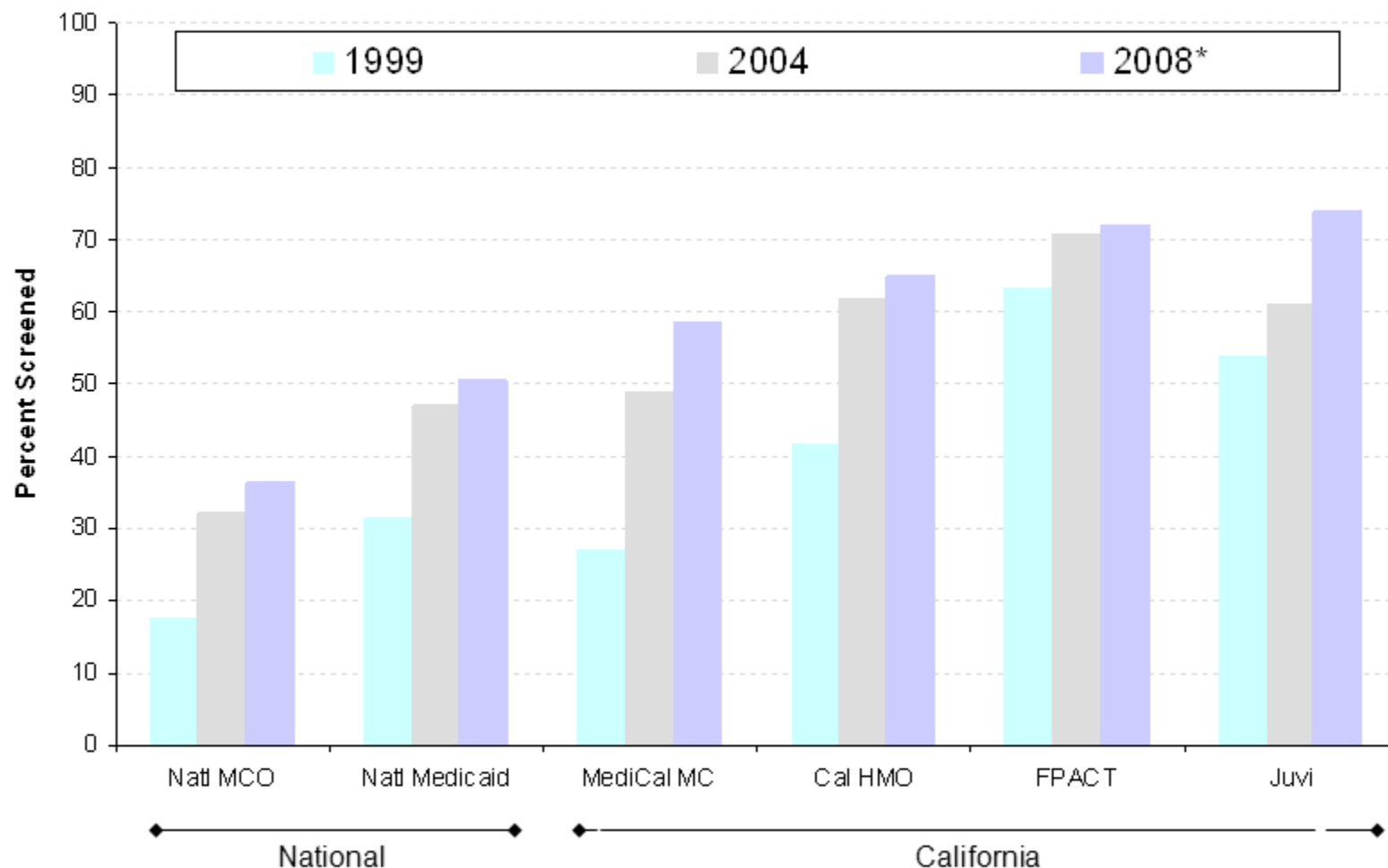
## Repeat Gonorrhea Infection by Data Source, Females, California, 2004–2008



Source: California DPH STD Control Branch (Excludes SF and LA, 2004-2008); \*\*California DPH Office of Family Planning-Quest Diagnostics (2004, 2006, 2007); \*\*Kaiser Permanente Northern CA (2004, 2006, 2007)



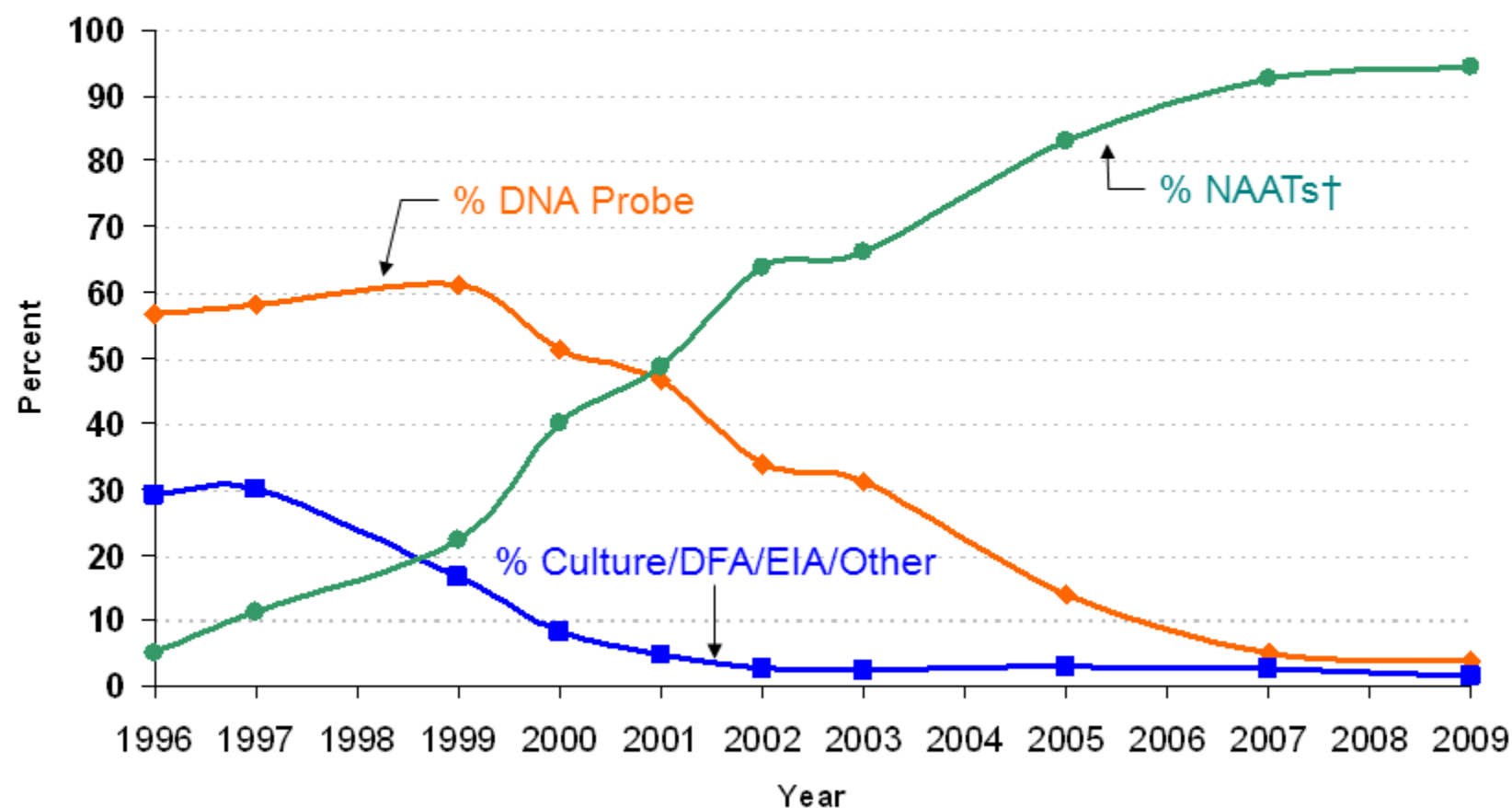
## Estimated Chlamydia Screening Coverage (HEDIS), Females 15–25, U.S.A. and California, 1999–2008



\* 2008 data reflects a change to 15-24 year-old females

Source: National Committee on Quality Assurance; California DHCS Division of Medi-Cal Managed Care; Kaiser Permanente Northern CA; California DPH Office of Family Planning

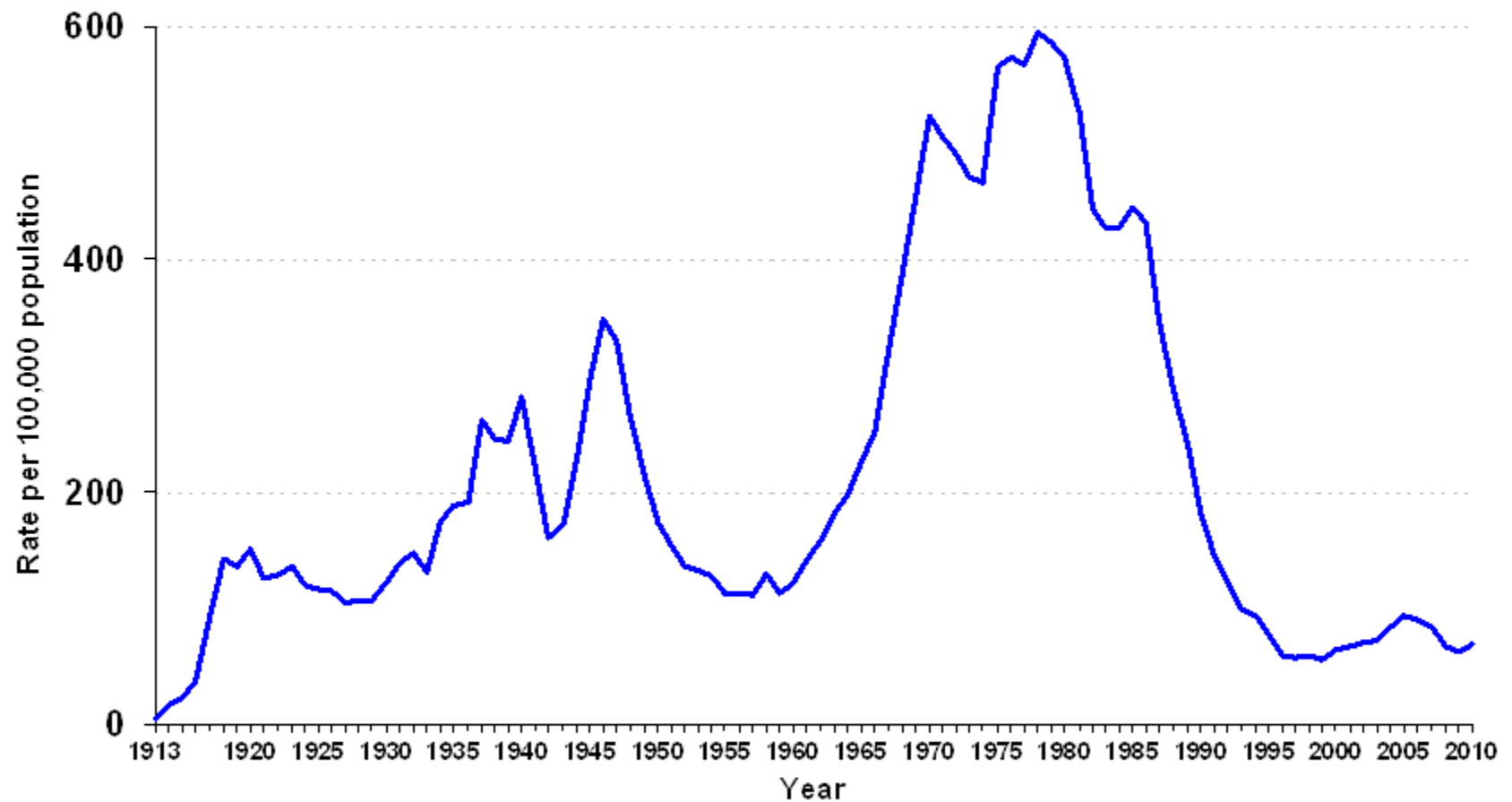
## Percent of Chlamydia Tests by Test Type California Annual Lab Survey, 1996–2009



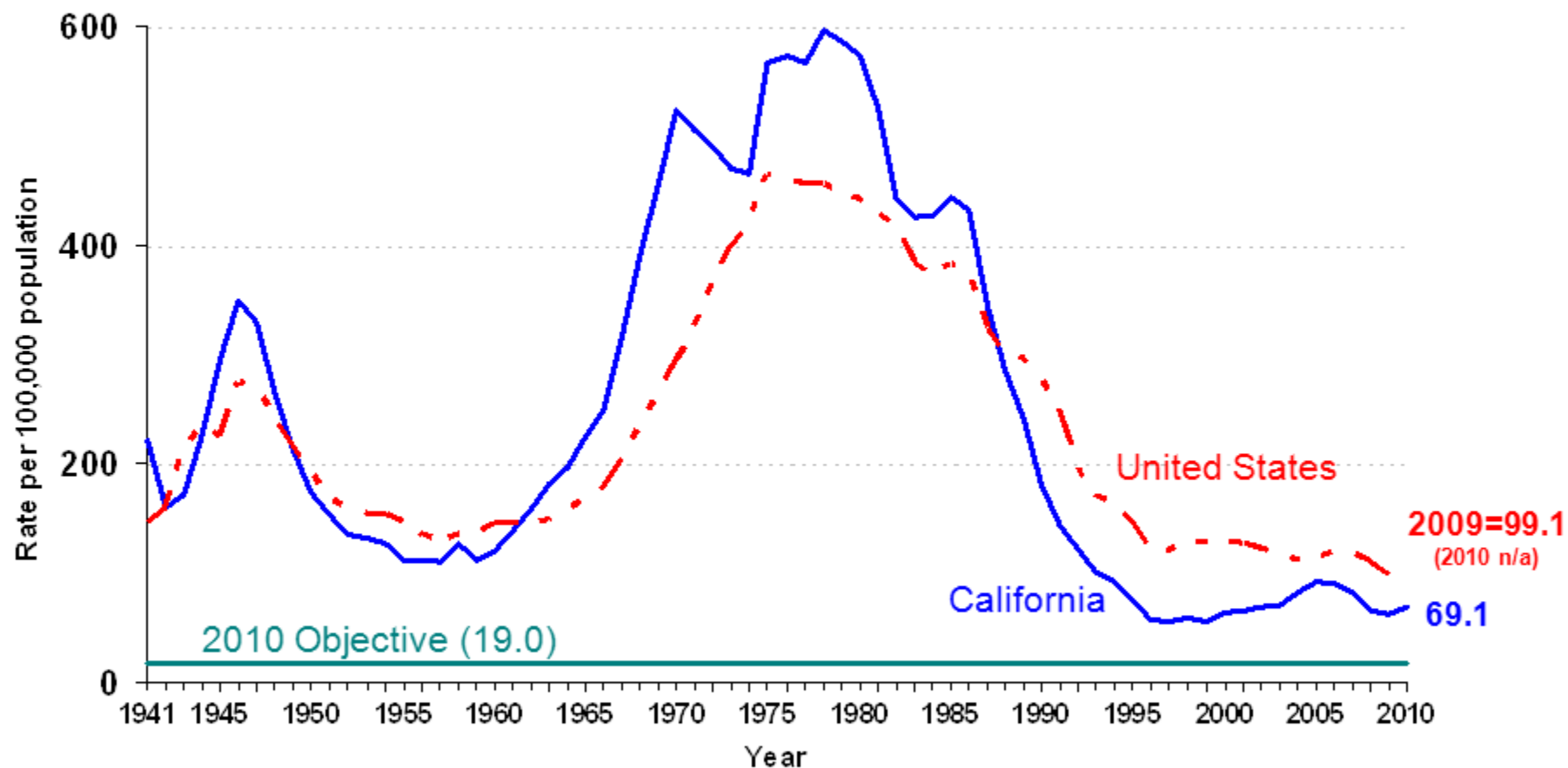
† NAATs: Nucleic acid amplification tests

# Gonorrhea

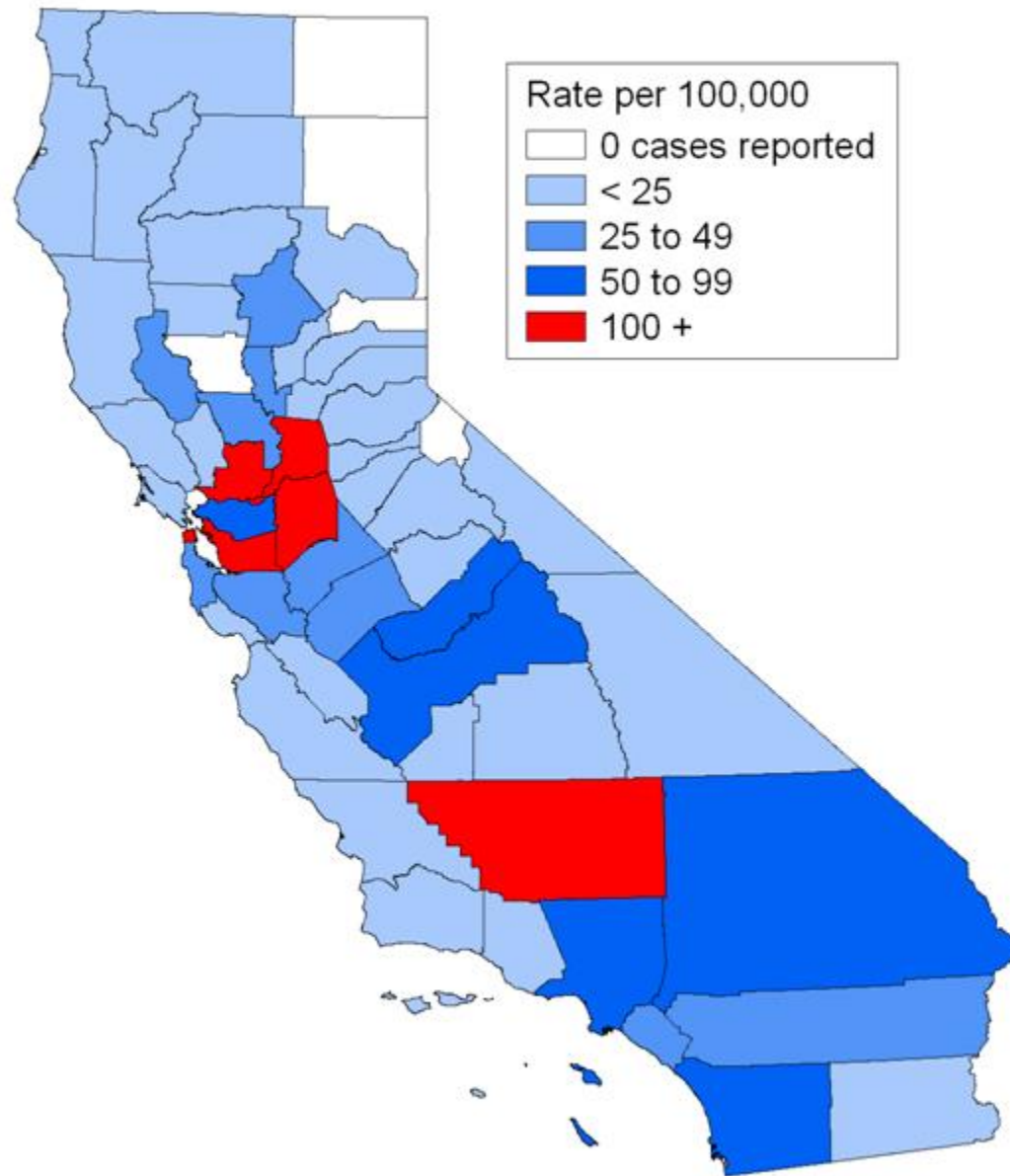
## Gonorrhea California Rates, 1913–2010



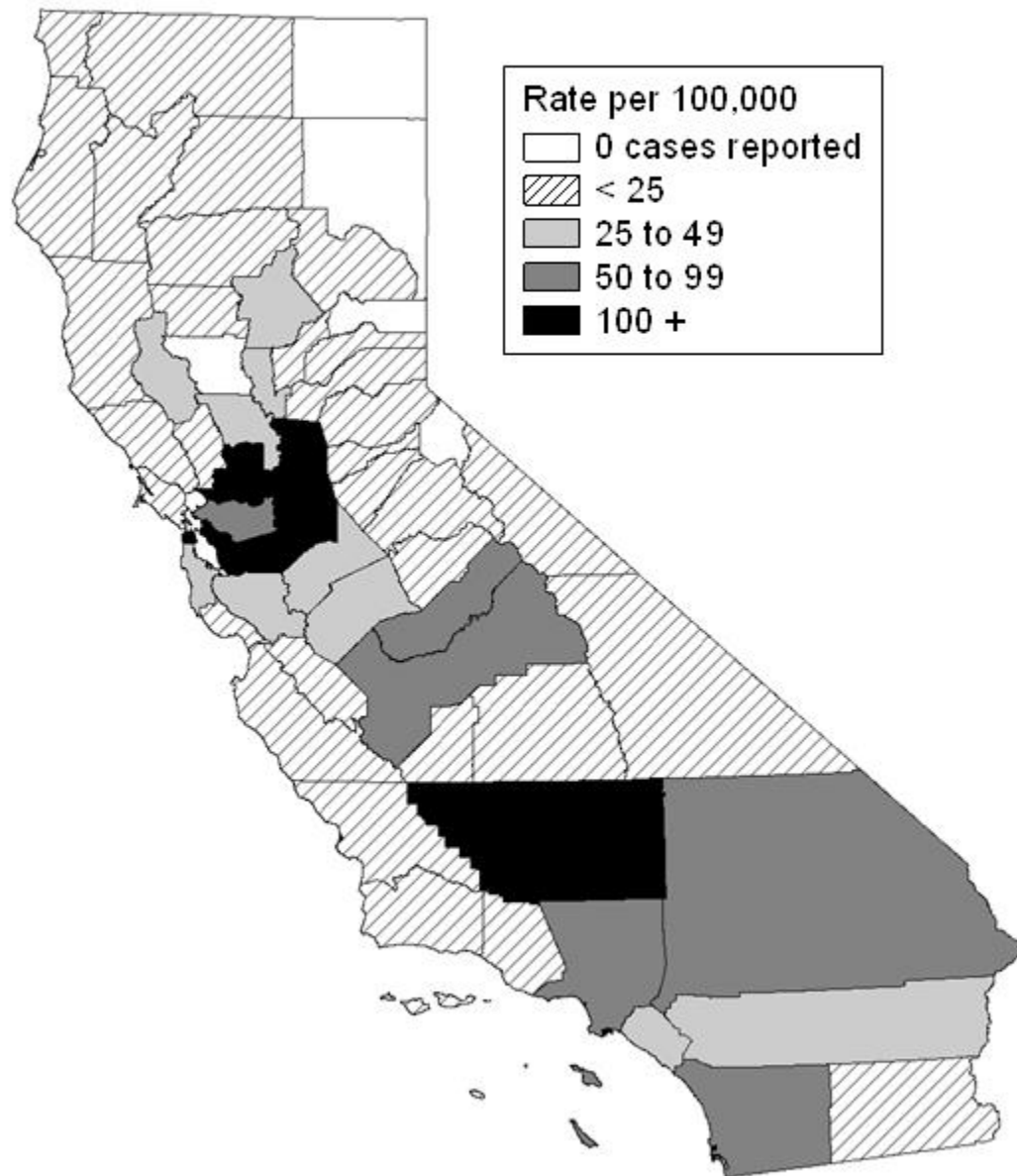
## Gonorrhea, California versus United States Rates, 1941–2010



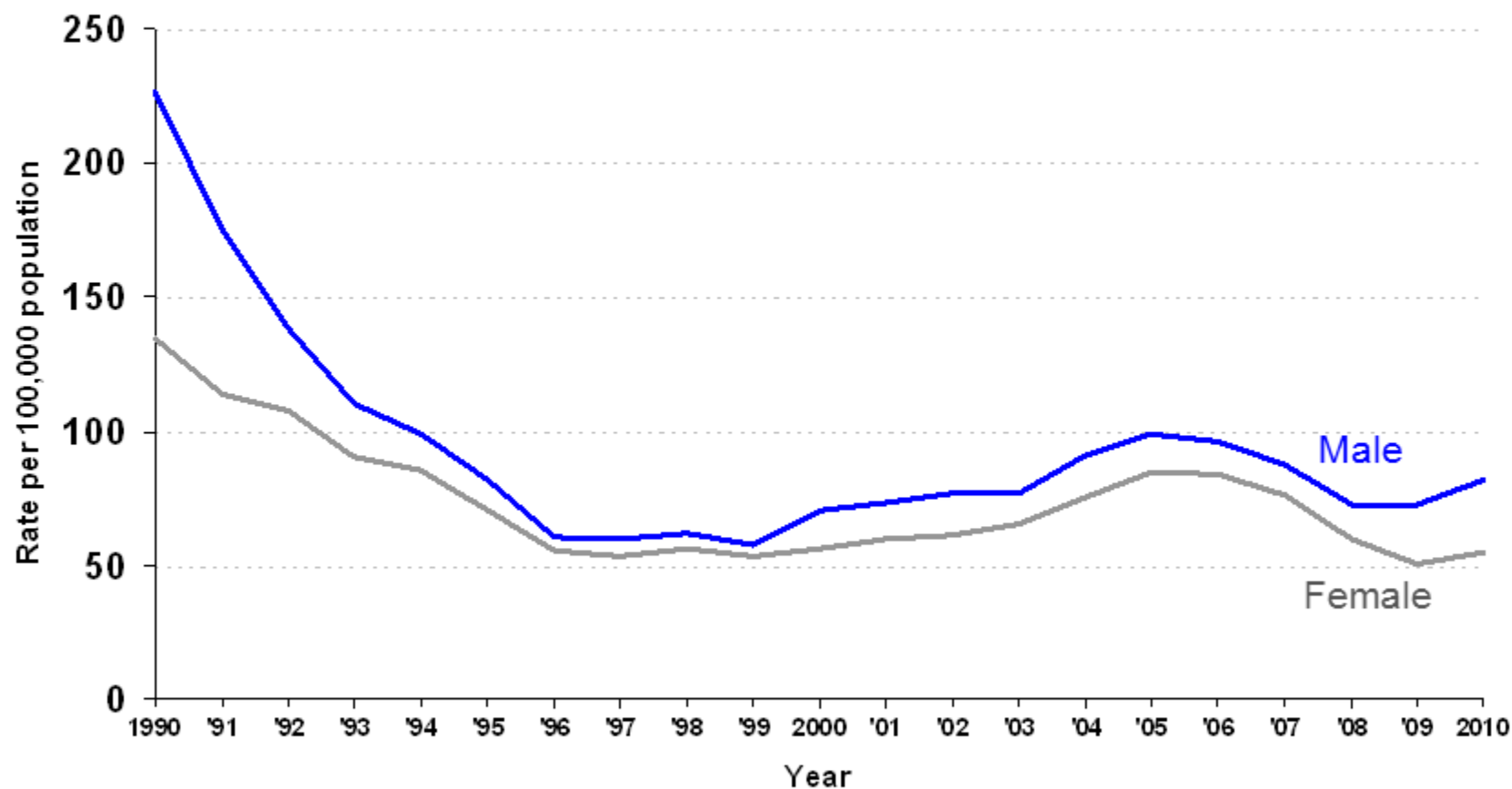
## Gonorrhea, Rates by County, California, 2010



## Gonorrhea, Rates by County, California, 2010

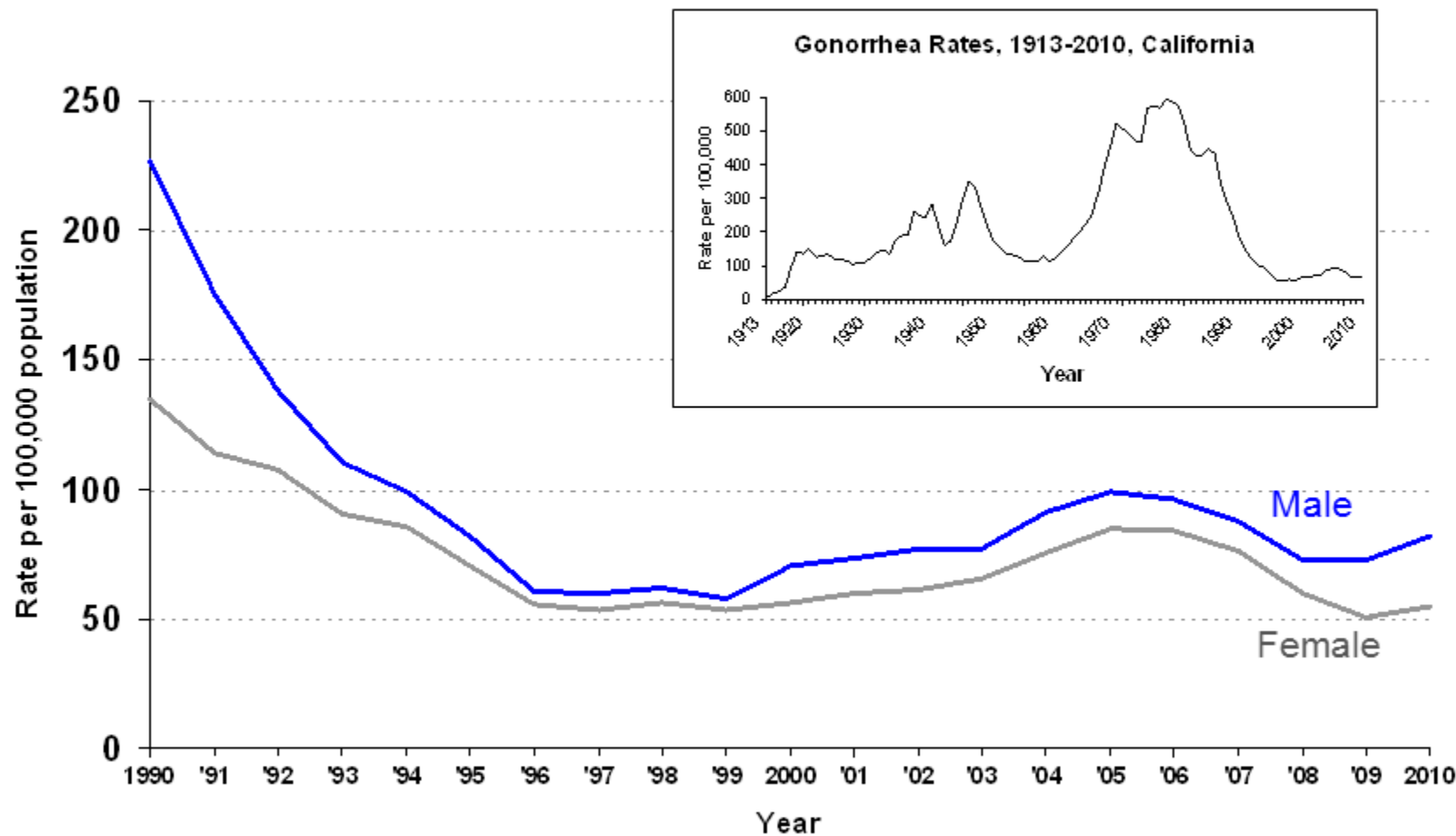


## Gonorrhea, Rates by Gender, California, 1990–2010

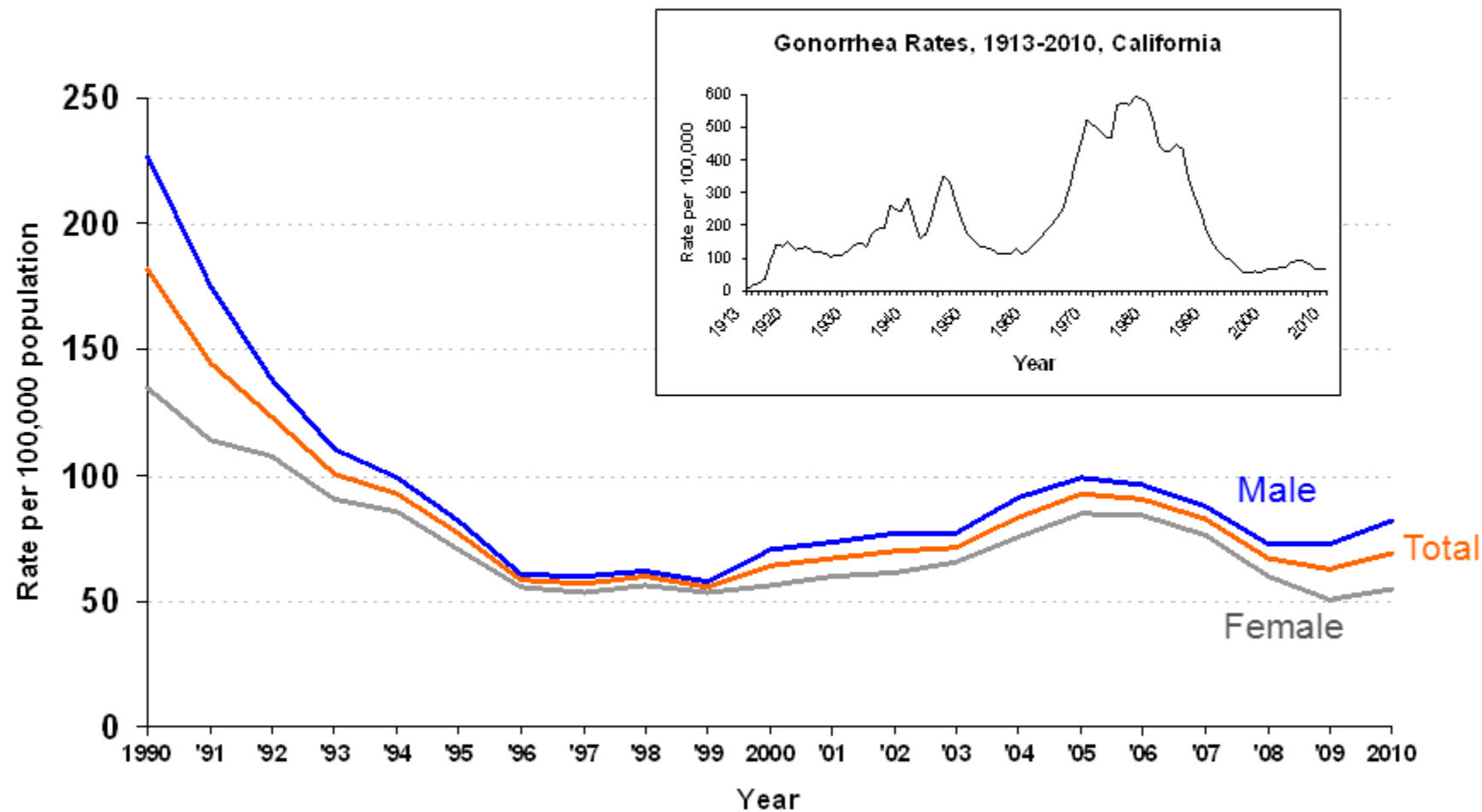




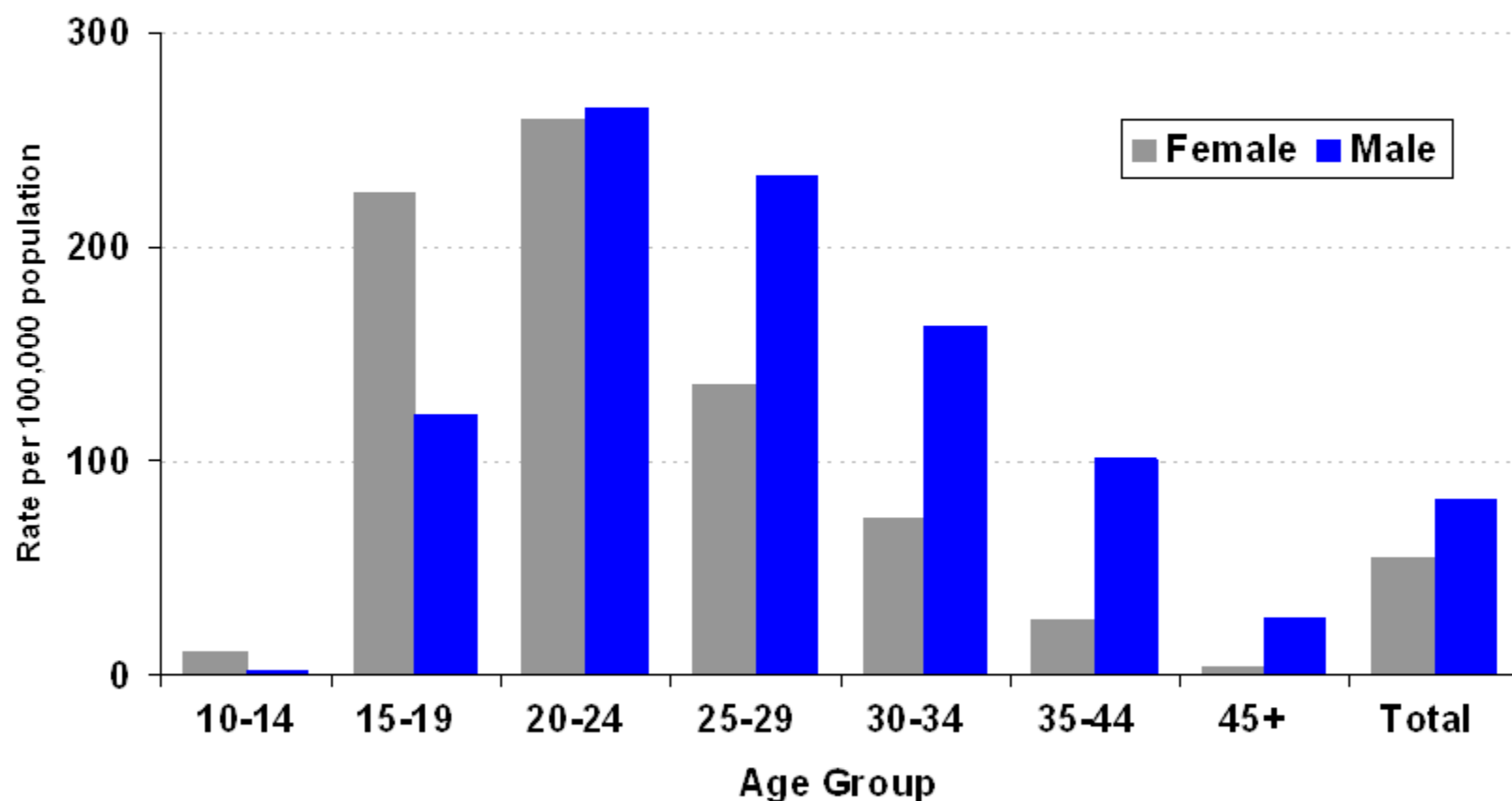
## Gonorrhea, Rates by Gender, California, 1990–2010



## Gonorrhea, Rates by Gender, California, 1990–2010

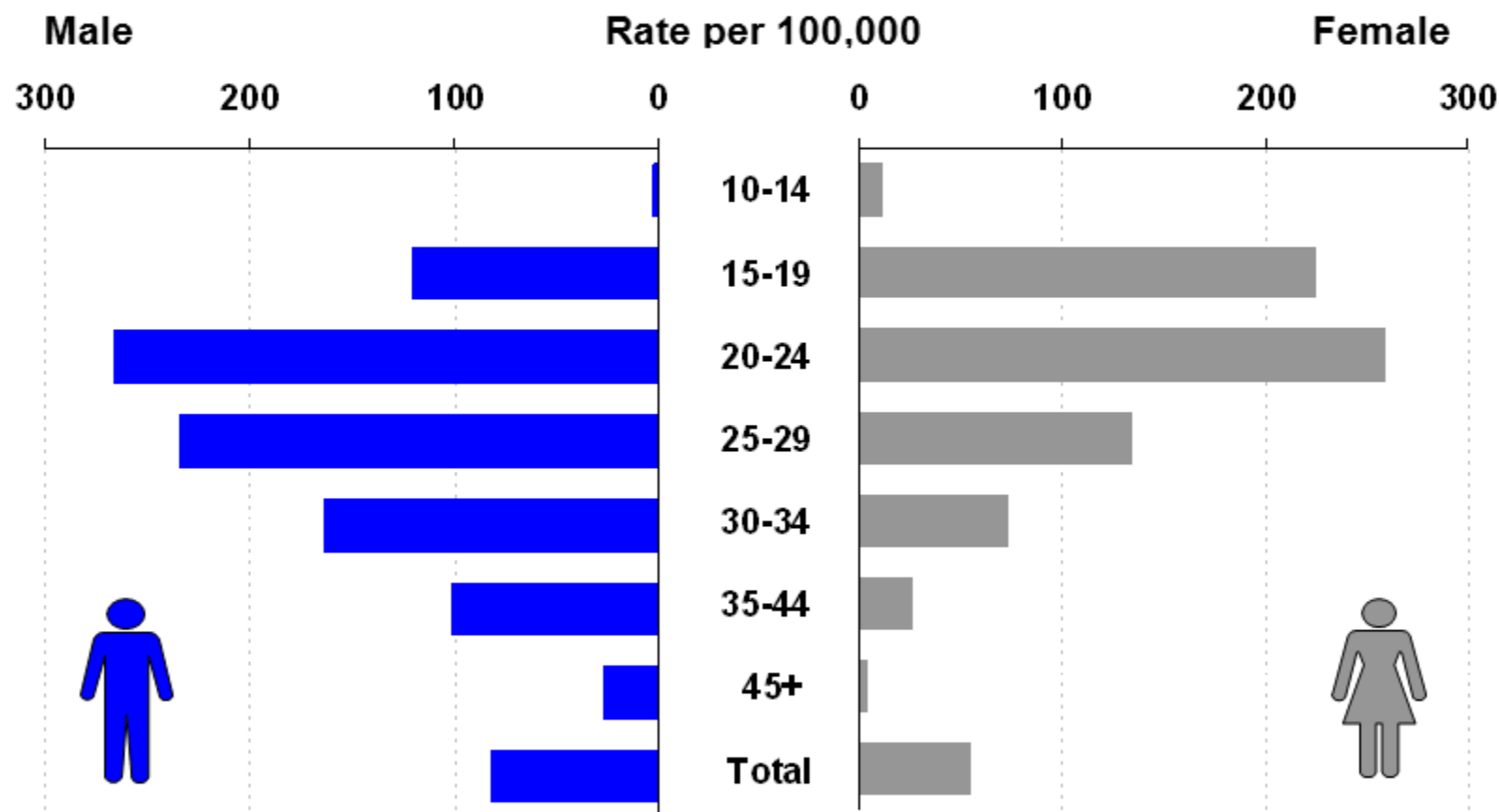


## Gonorrhea, Rates by Gender and Age Group (in years) California, 2010



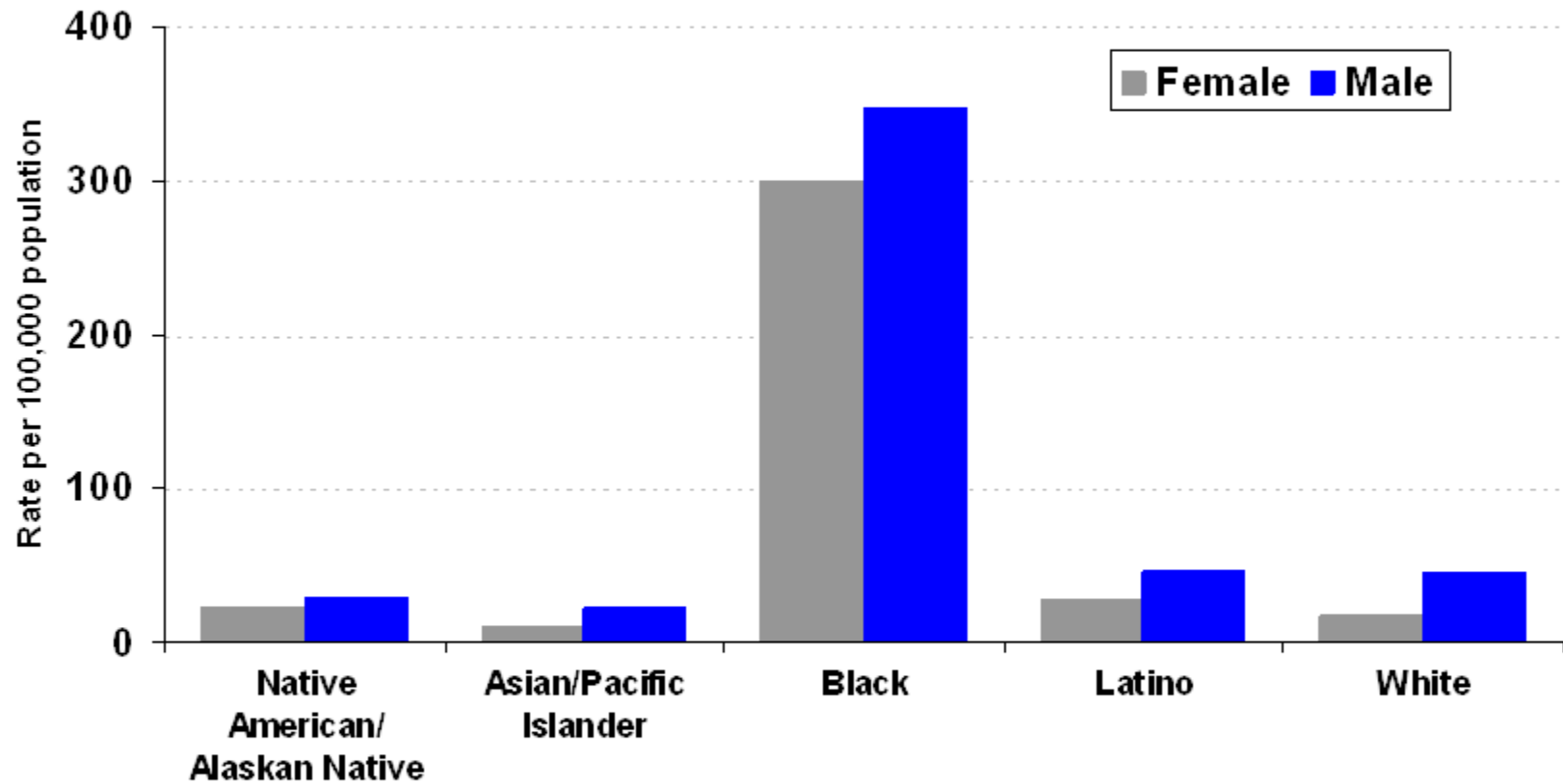
Note: Gender "Not Specified" accounted for less than 0.5% of all cases.

# Gonorrhea, Rates by Gender and Age Group (in years) California, 2010



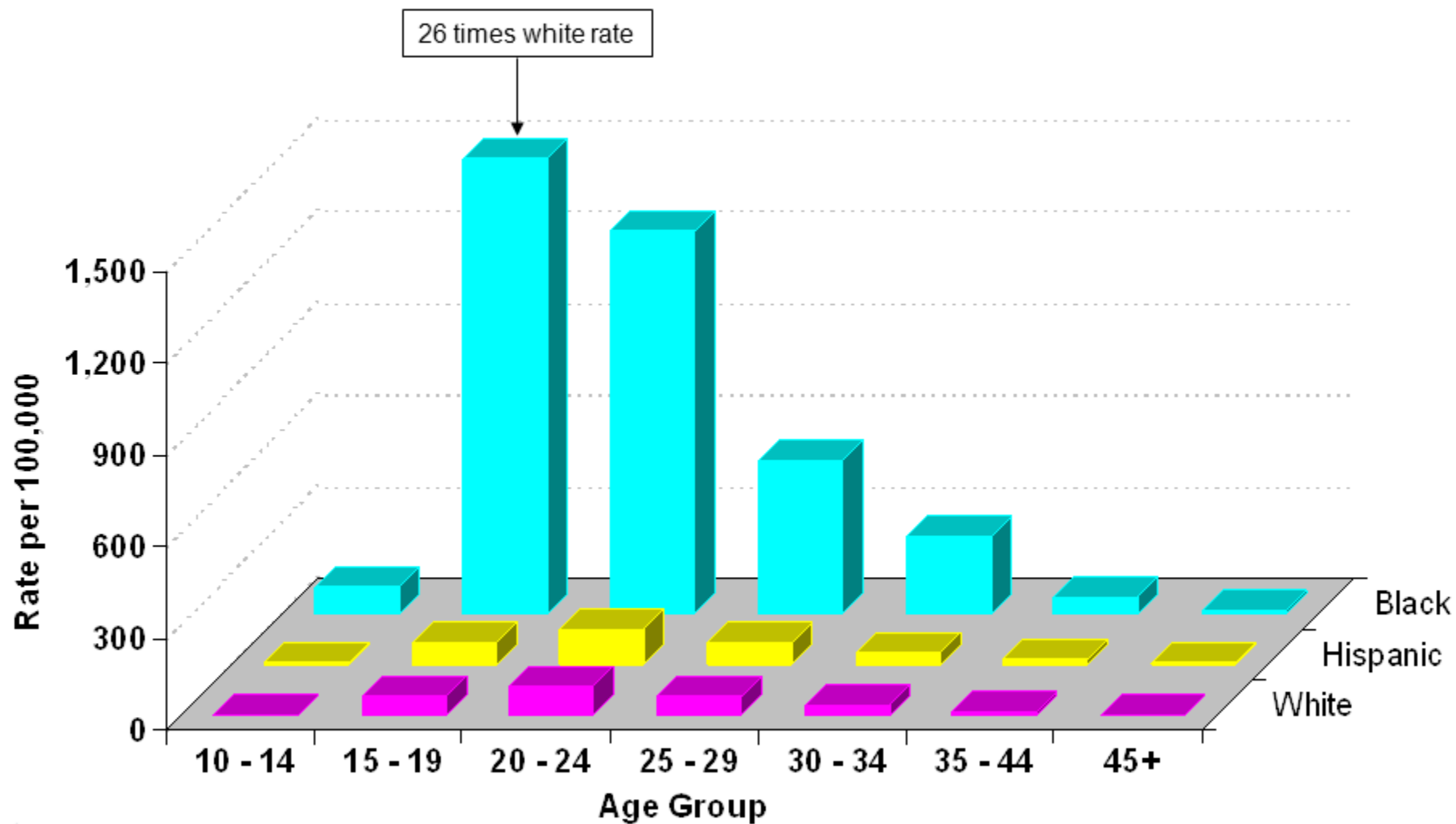
Note: Gender "Not Specified" accounted for less than 0.5% of all cases.

## Gonorrhea, Rates by Gender and Race/Ethnicity California, 2010

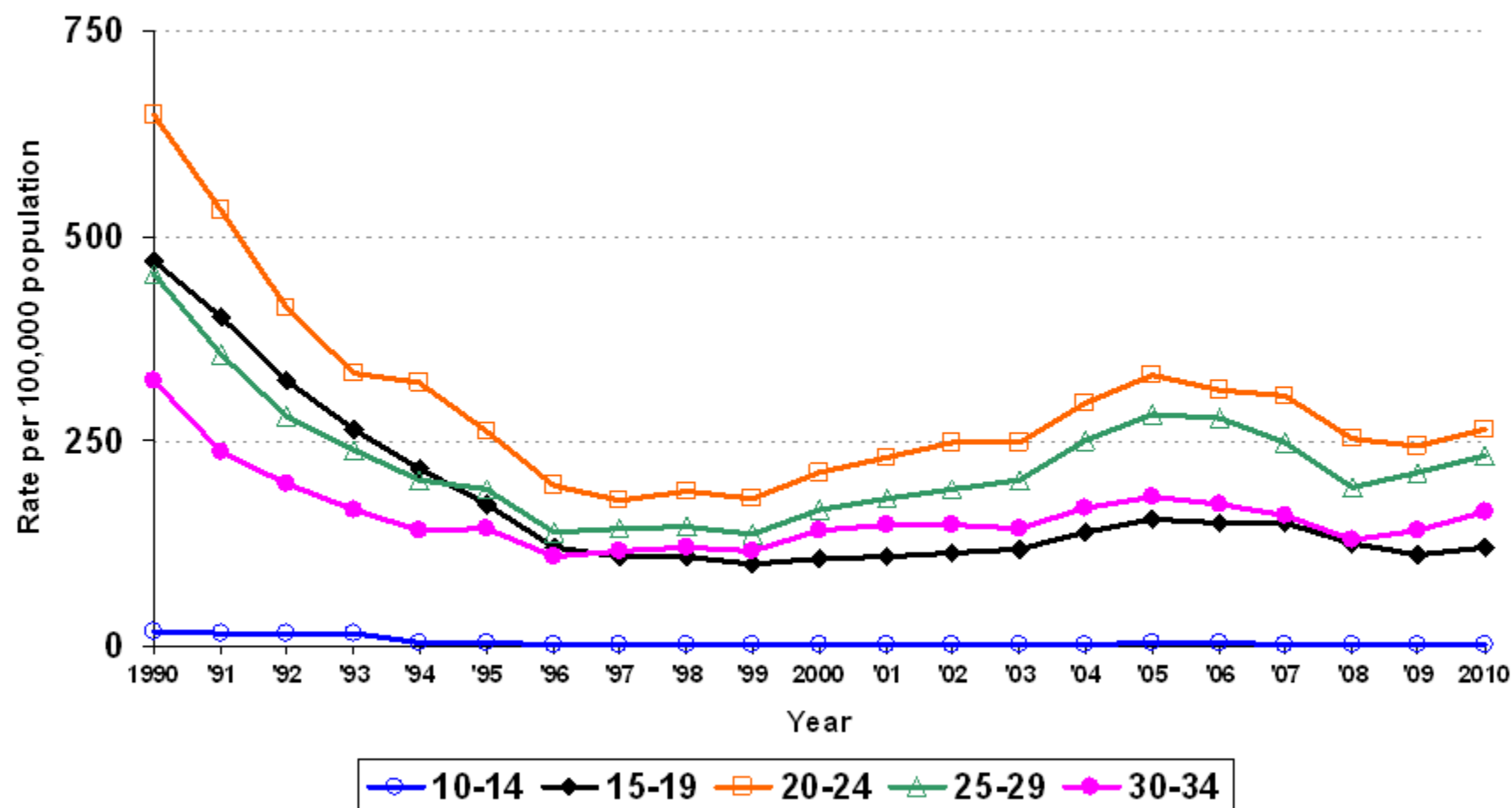


Note: Race/Ethnicity was "Not Specified" for 33.1% of female cases and 27.8% of male cases for the given year.

## Gonorrhea, Female Rates by Race/Ethnicity and Age Group (in years) California, 2010

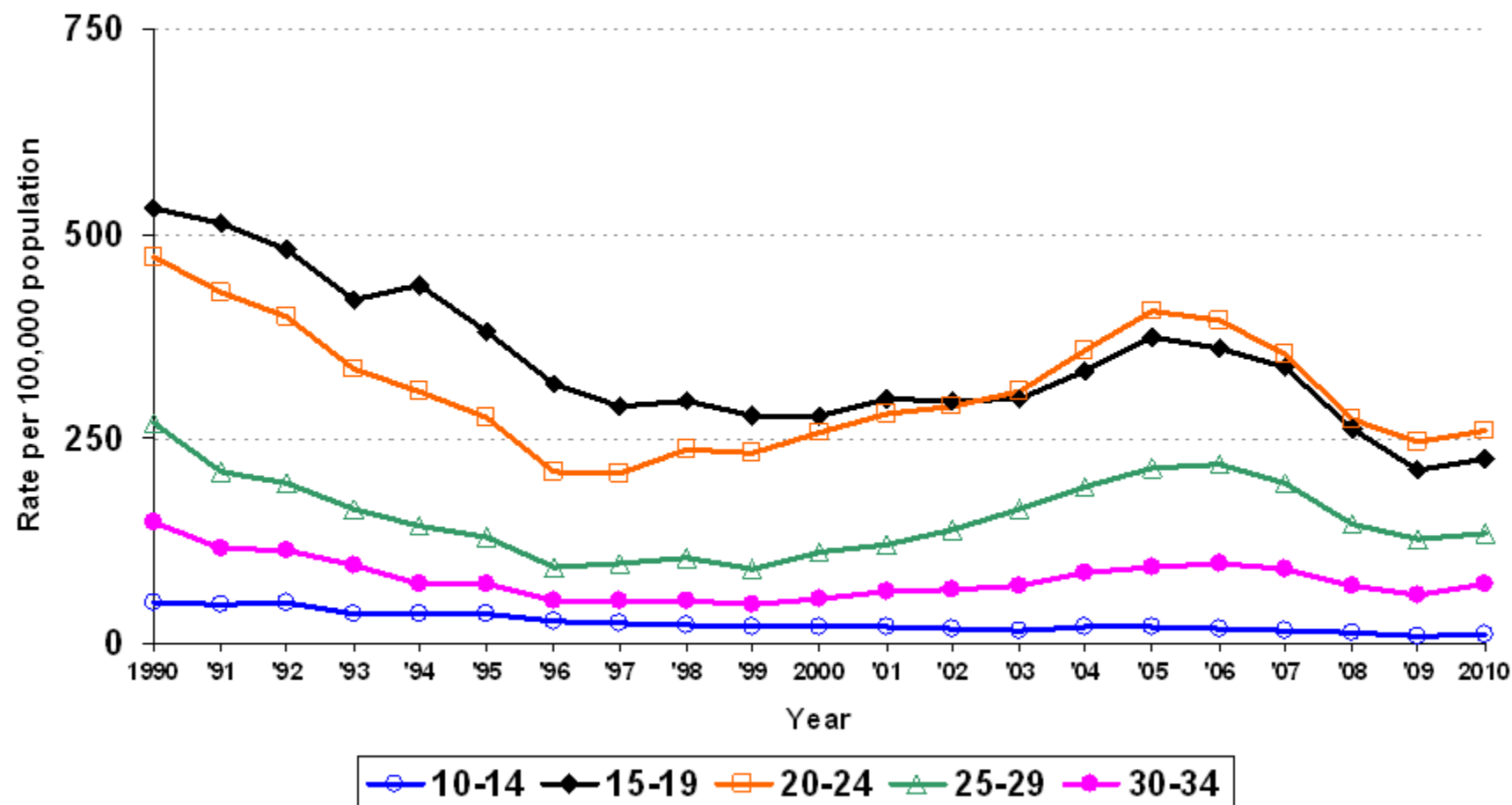


## Gonorrhea, Rates for Males by Age Group (in years) California, 1990–2010



Note: Age "Not Specified" ranged from 0.3% to 7.5% of cases for males in any given year.

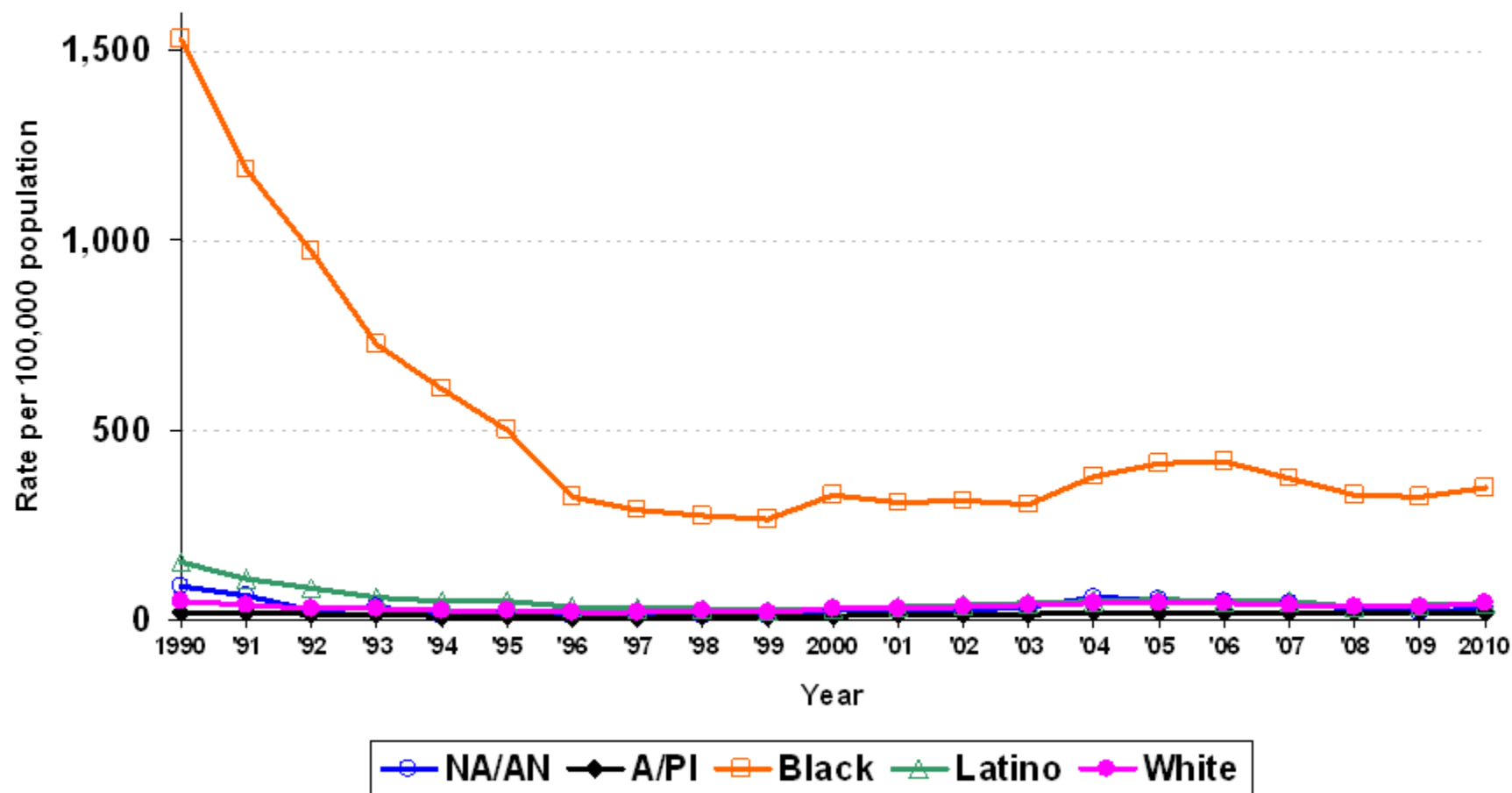
## Gonorrhea, Rates for Females by Age Group (in years) California, 1990–2010



Note: Age "Not Specified" ranged from 0.2% to 9.0% of cases for females in any given year.



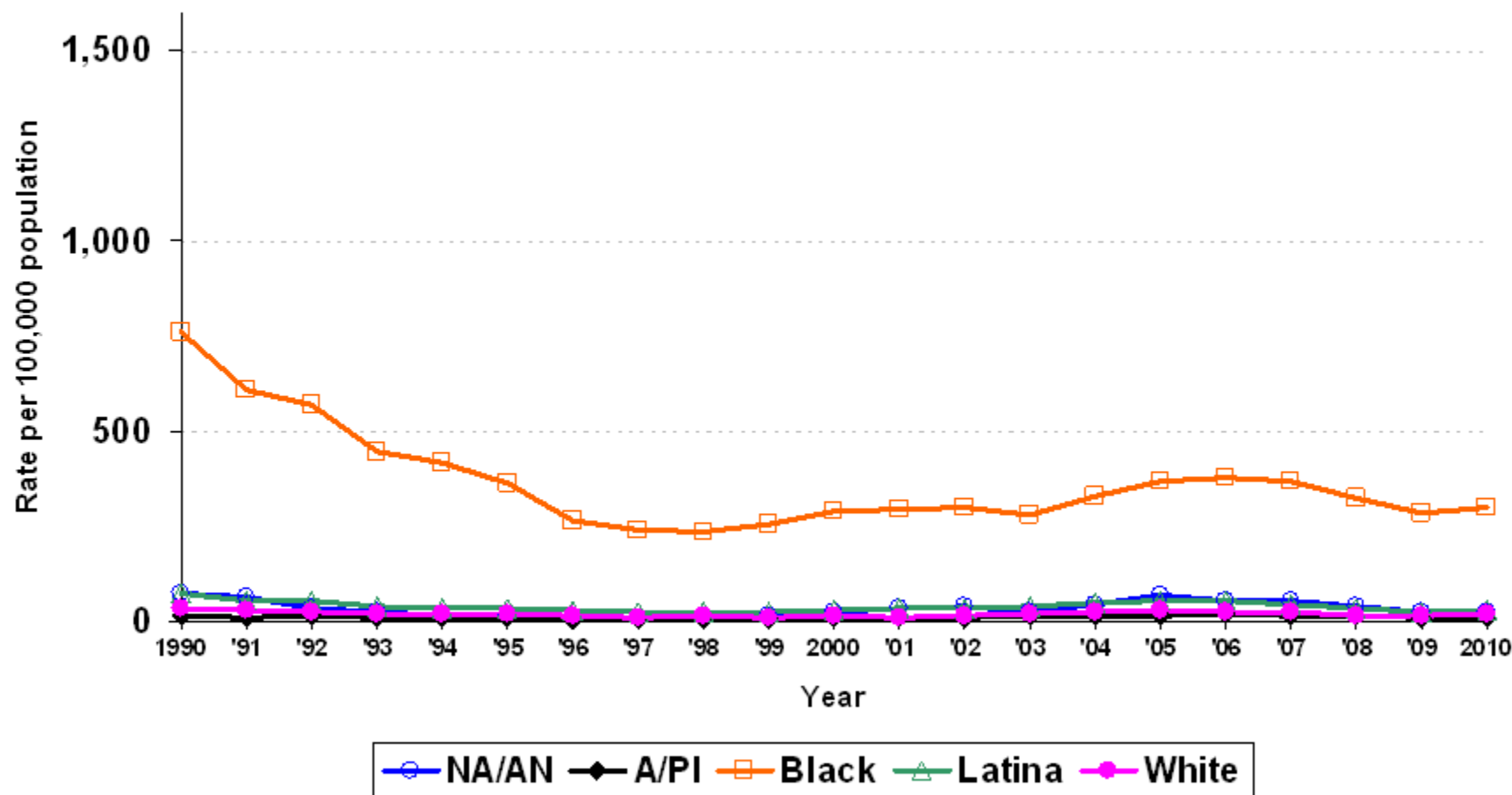
## Gonorrhea, Rates for Males by Race/Ethnicity California, 1990–2010



Note: NA/AN = Native American/Alaskan Native, A/PI = Asian/Pacific Islander.

Race/ethnicity "Not Specified" ranged from 21.1% to 36.1% of cases for males in any given year.

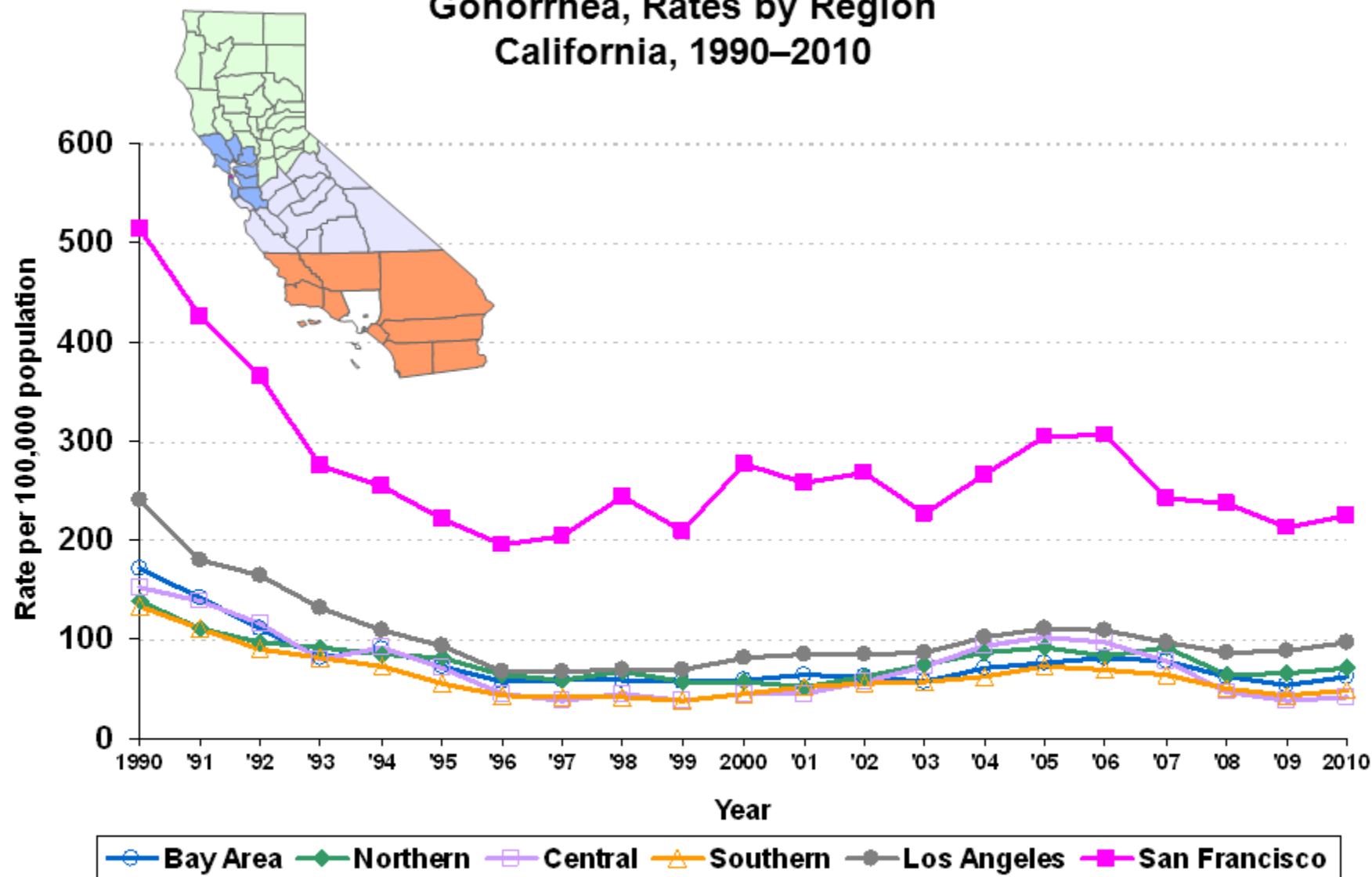
## Gonorrhea, Rates for Females by Race/Ethnicity California, 1990–2010



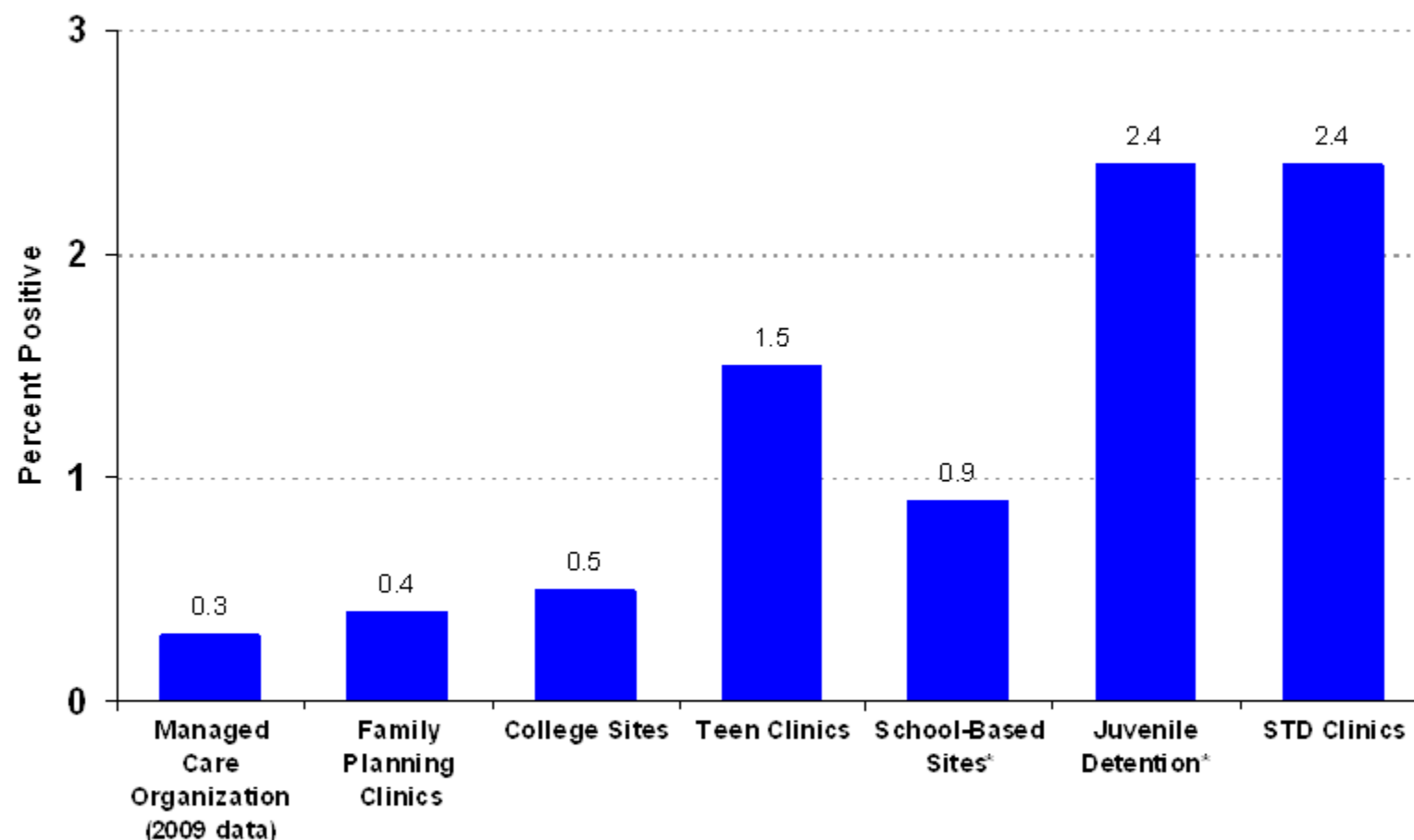
Note: NA/AN = Native American/Alaskan Native, A/PI = Asian/Pacific Islander.

Race/ethnicity "Not Specified" ranged from 29.6% to 43.1% of cases for females in any given year.

## Gonorrhea, Rates by Region California, 1990–2010



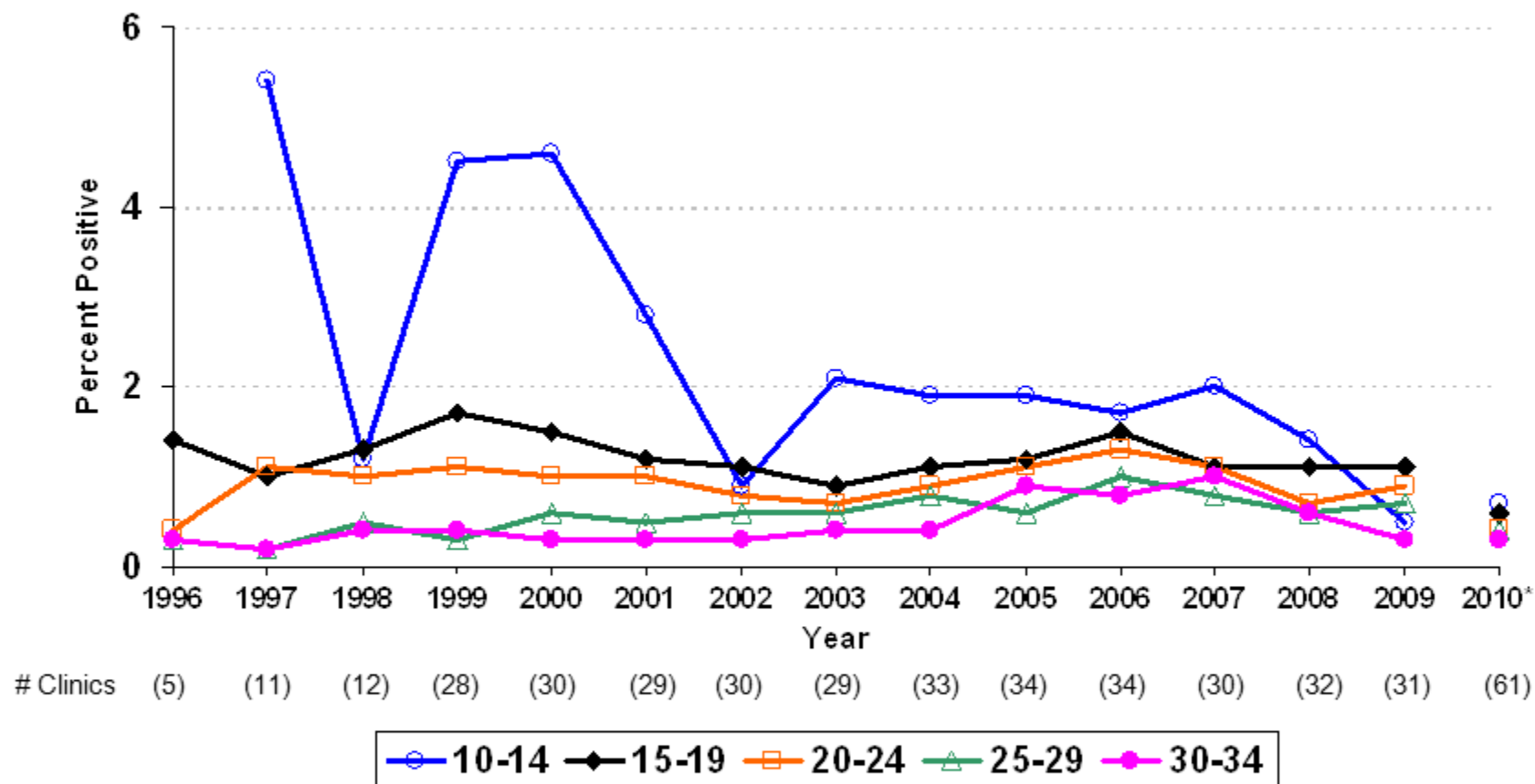
## Gonorrhea Prevalence Monitoring, Percent Positive for Females by Health Care Setting, California, 2010



\* These two venues target adolescents primarily.

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

## Gonorrhea Prevalence Monitoring, Percent Positive for Females at Family Planning Clinics, by Age Group (in years), 1996–2010

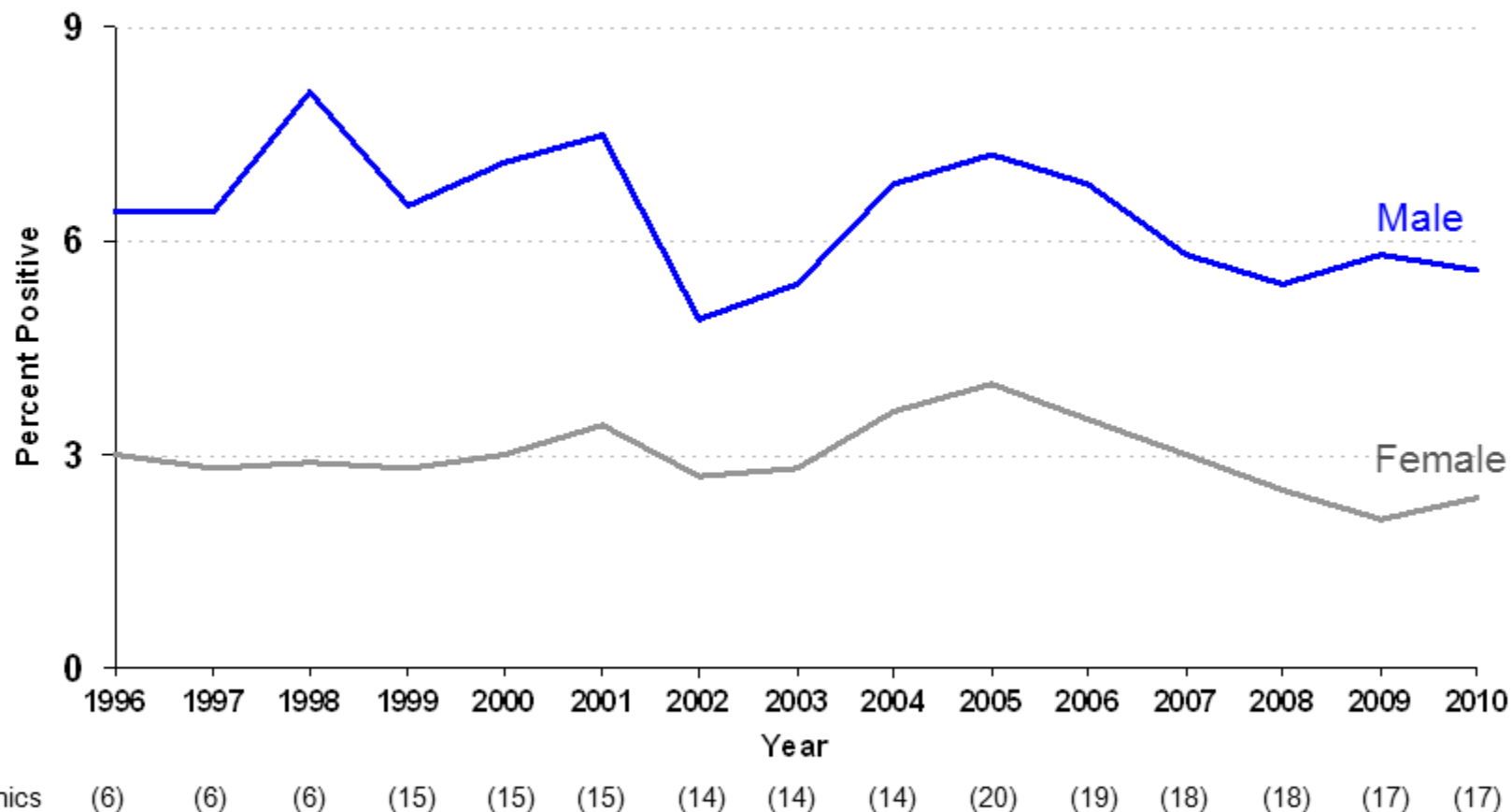


\* The 2010 prevalence may not be consistent with prior years' data due to the impact of major changes in the data transmission process (including a much larger number of sites).

Note: Age group 10-14 not graphed in 1996, due to fewer than 50 tests.

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

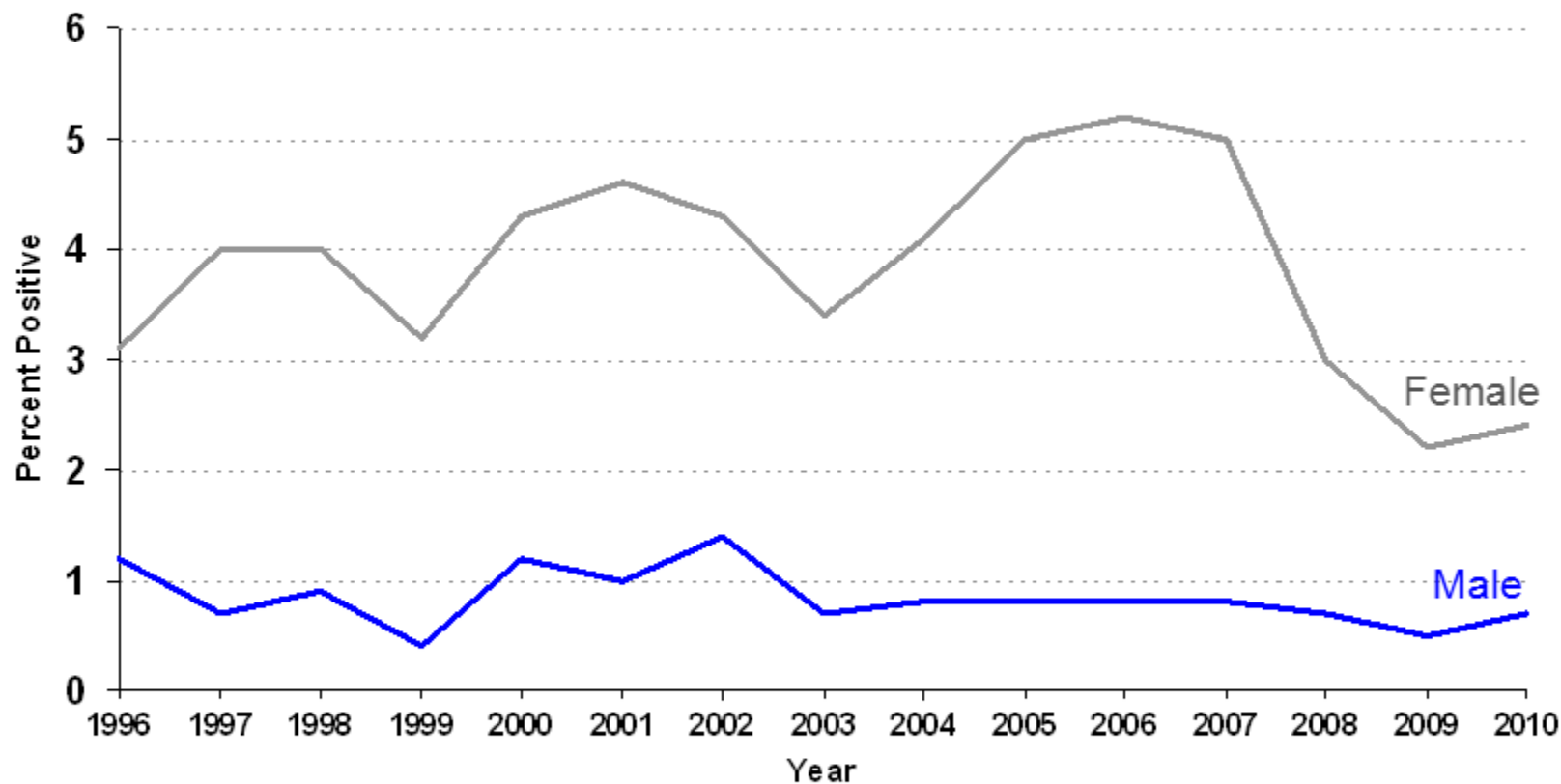
## Gonorrhea Prevalence Monitoring, Percent Positive at STD Clinics by Gender\*, 1996–2010



\* Male data may disproportionately reflect symptomatic or exposure-based testing, and likely overstates prevalence.

Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

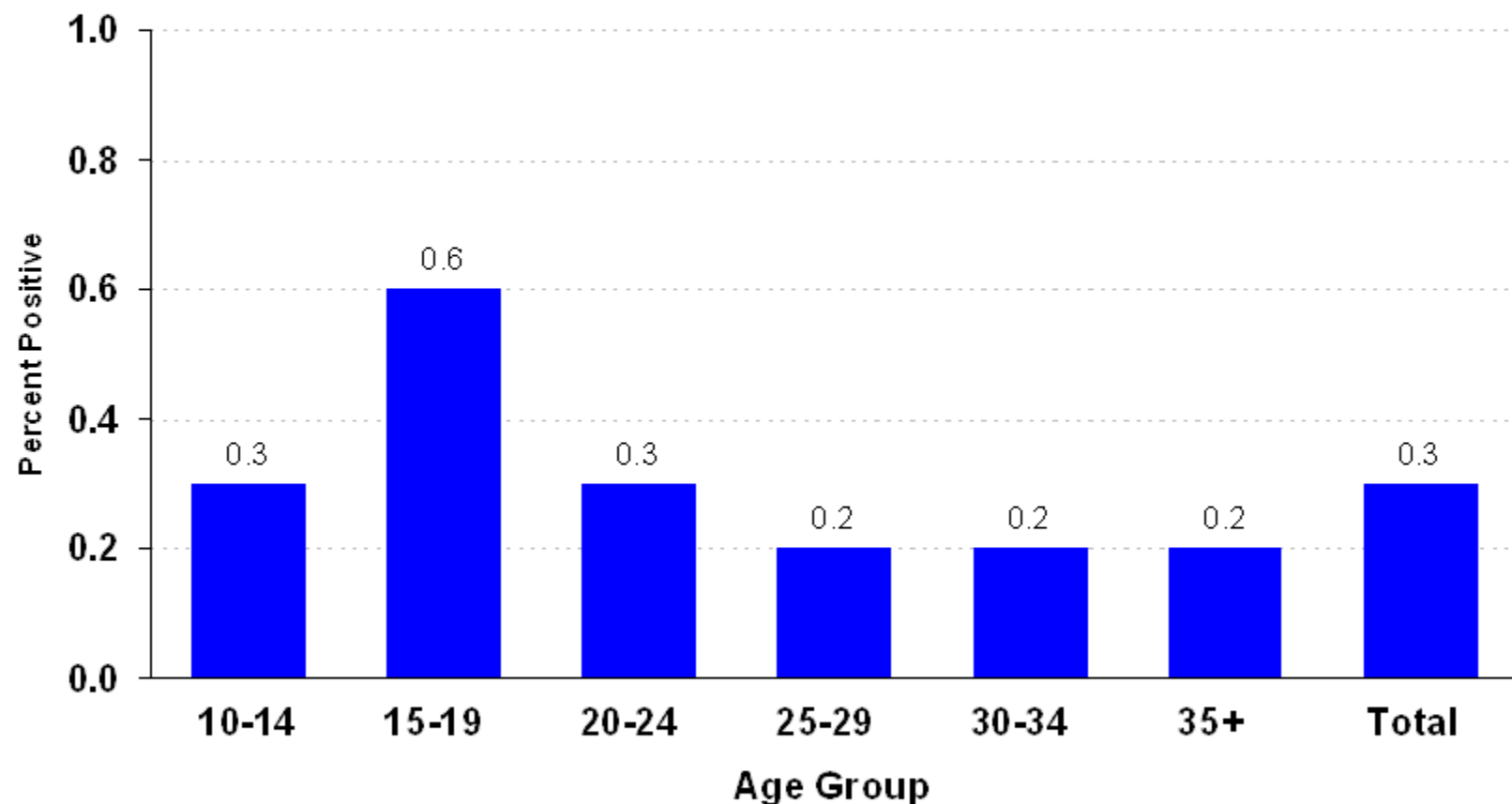
## Gonorrhea Prevalence Monitoring, Percent Positive at Juvenile Detention Facilities, by Gender, 1996–2010



# Sites	-Female	(2)	(5)	(5)	(5)	(6)	(5)	(9)	(10)	(8)	(8)	(9)	(6)	(10)	(13)	(13)
	-Male	(2)	(2)	(2)	(4)	(4)	(4)	(10)	(10)	(8)	(8)	(9)	(6)	(9)	(10)	(8)

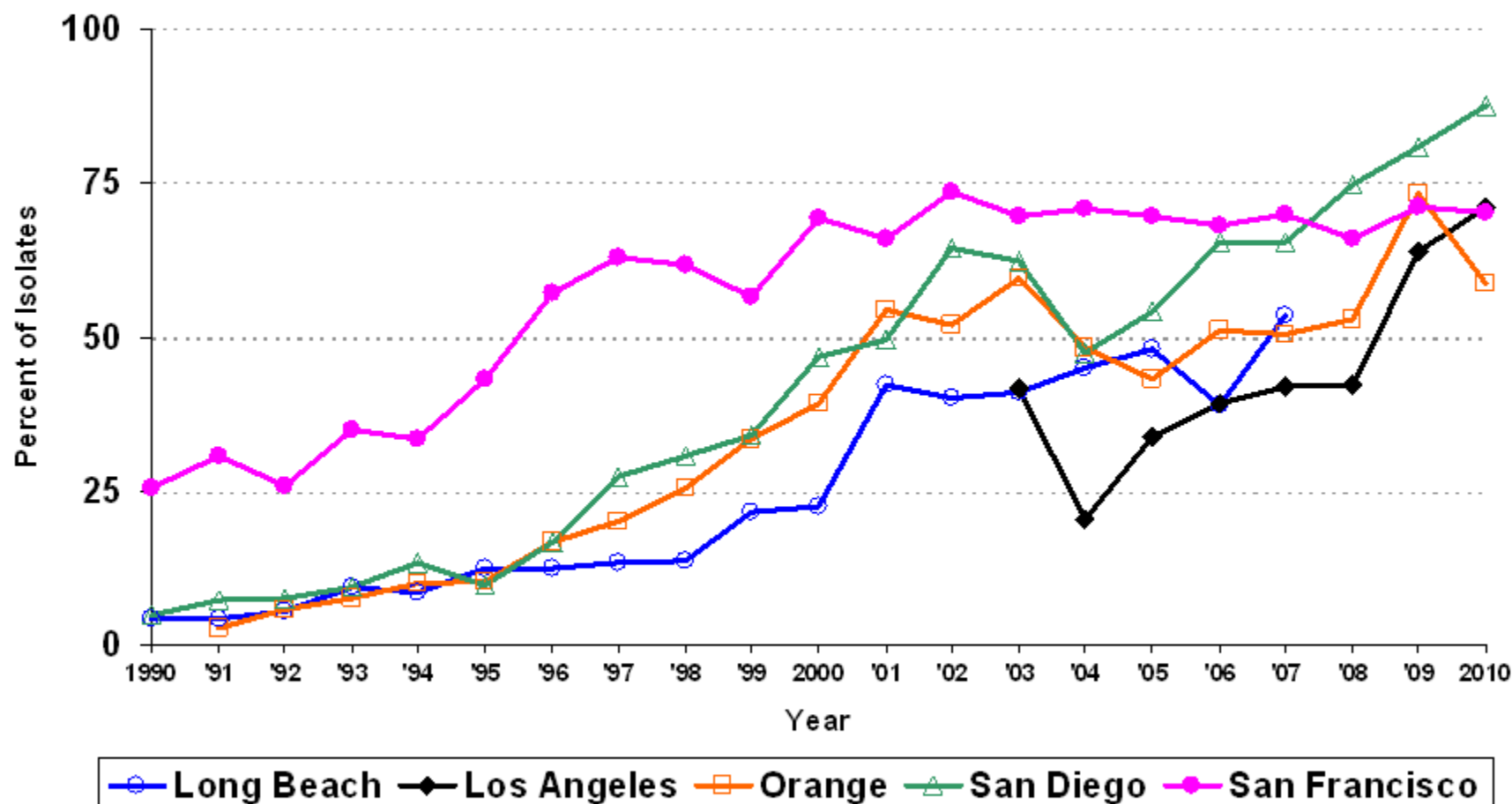
Source: California Department of Public Health, STD Control Branch; Los Angeles Infertility Prevention Project; and San Francisco Infertility Prevention Project

## Gonorrhea Prevalence Monitoring, Percent Positive for Females in a Northern California Managed Care Organization, by Age Group, 2009



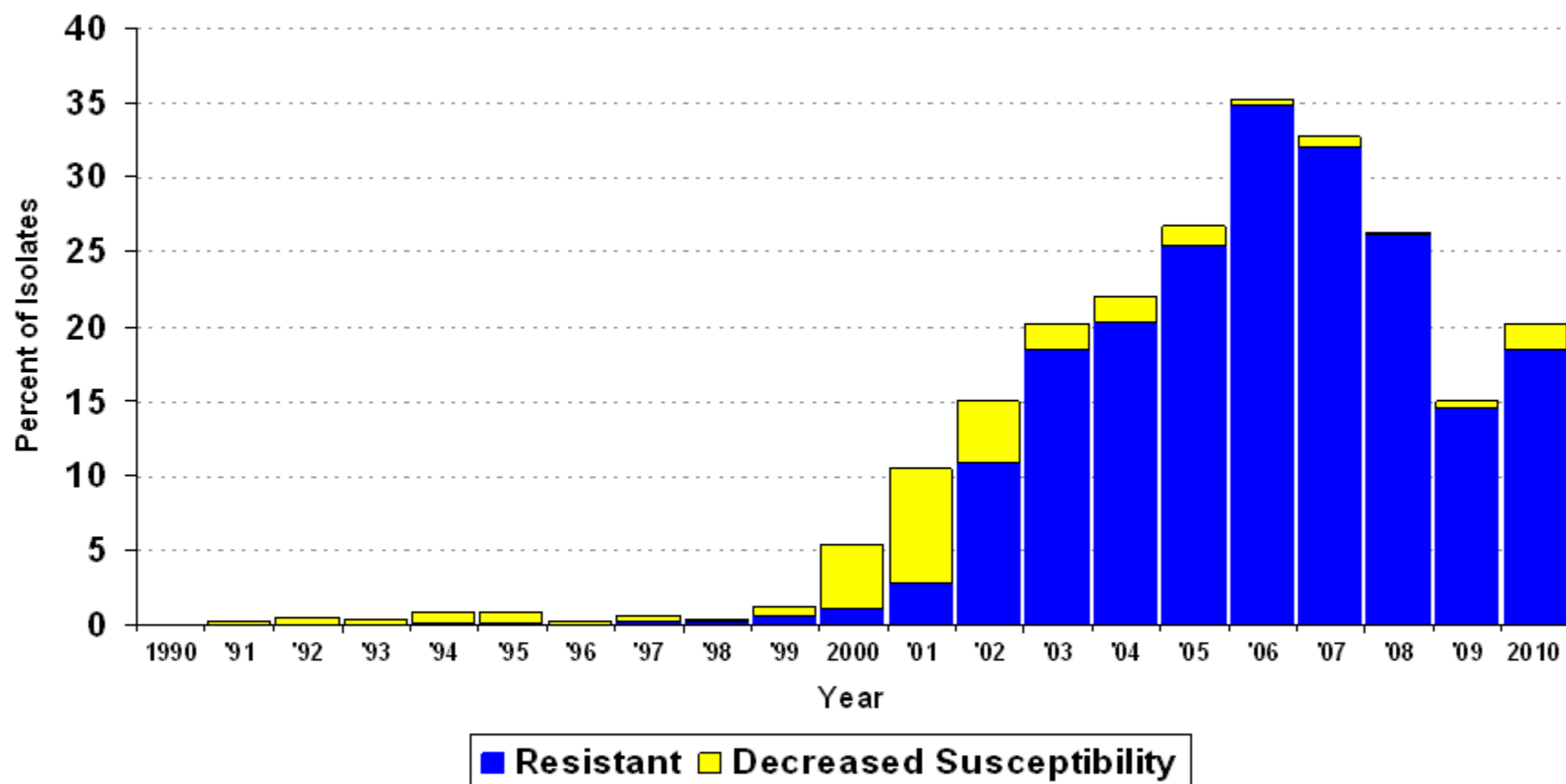


# Gonococcal Isolate Surveillance Project (GISP), Percent of *Neisseria Gonorrhoeae* Isolates Obtained from Men who Have Sex with Men in Five California STD Clinics, 1990–2010



Note: This project began in 1991 for the Orange County STD Clinic, and in 2003 for the Los Angeles County STD Clinic. Project participation ended for the Long Beach City STD Clinic in 2007.

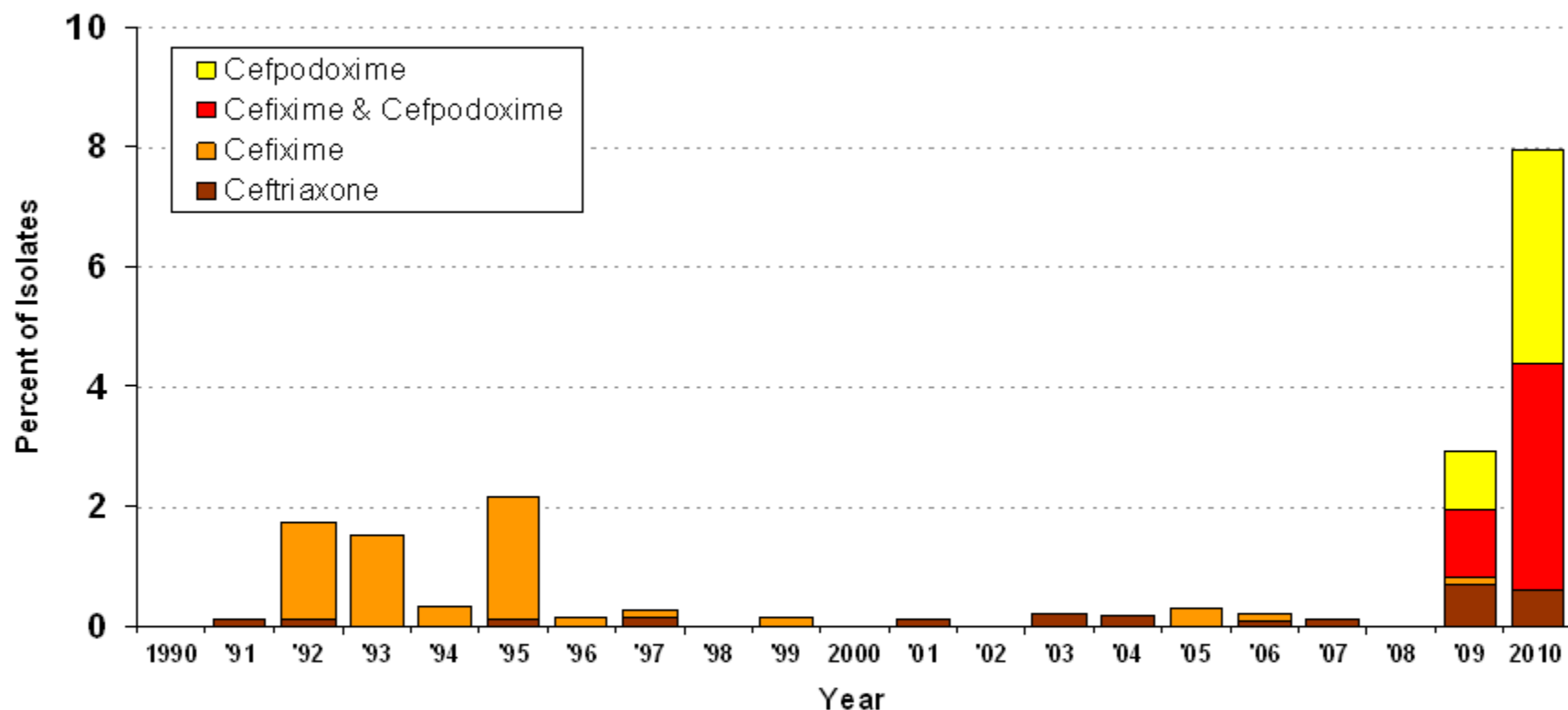
## Gonococcal Isolate Surveillance Project (GISP), Percent of *Neisseria Gonorrhoeae* Isolates with Decreased Susceptibility or Resistance to Ciprofloxacin in Five California STD Clinics, 1990–2010



Note: Resistant isolates have MICs  $\geq 1$   $\mu$ g ciprofloxacin/mL. Isolates with decreased susceptibility have MICs of 0.125 – 0.5  $\mu$ g ciprofloxacin/mL.

STD Clinic Sites: Long Beach (ended participation in 2007), Los Angeles (added in 2003), Orange, San Diego, San Francisco

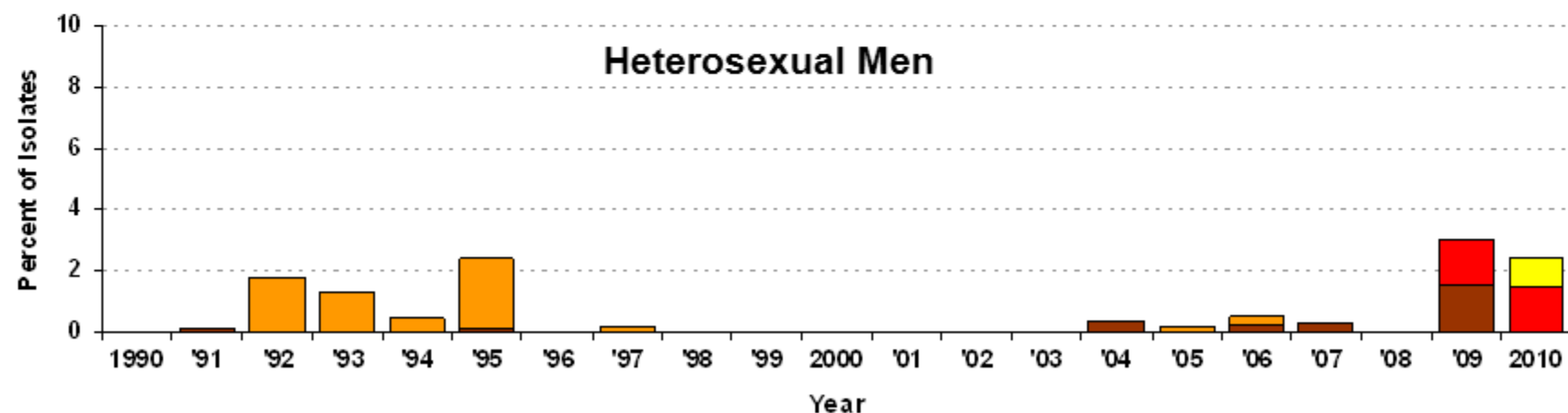
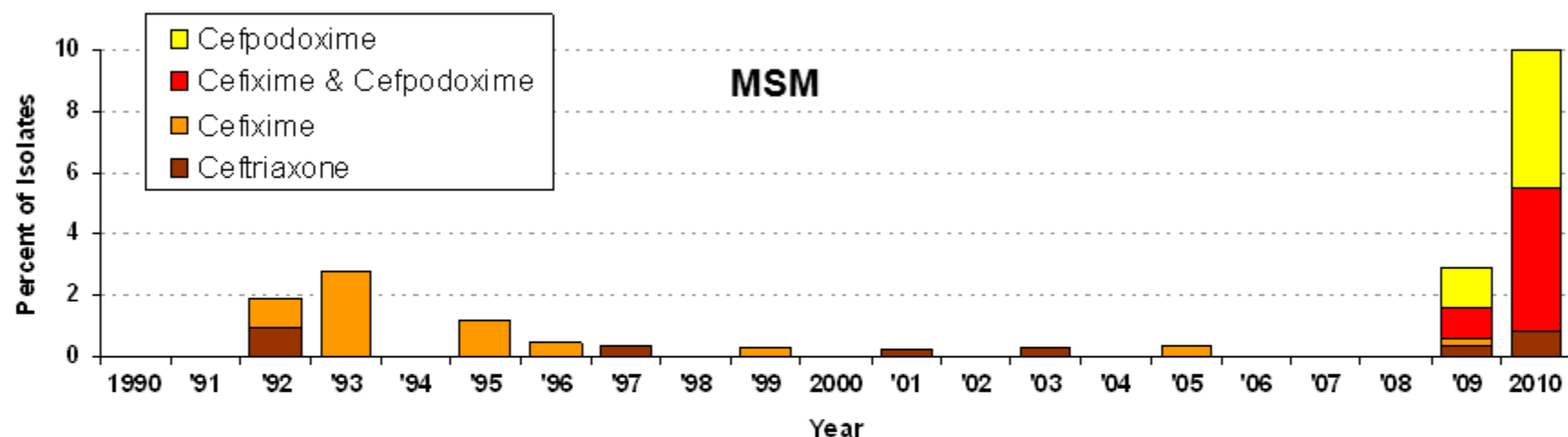
# Gonococcal Isolate Surveillance Project (GISP), Percent of *Neisseria Gonorrhoeae* Isolates with CDC "Alert" Values for Cephalosporins in Five California STD Clinics, 1990–2010



Note: "Alert" values are set by CDC as markers to look at possible decreased susceptibility. Cefpodoxime and cefixime alerts have MICs  $\geq 0.25$   $\mu\text{g/mL}$ . Ceftriaxone alerts have MICs  $\geq 0.125$   $\mu\text{g/mL}$ .

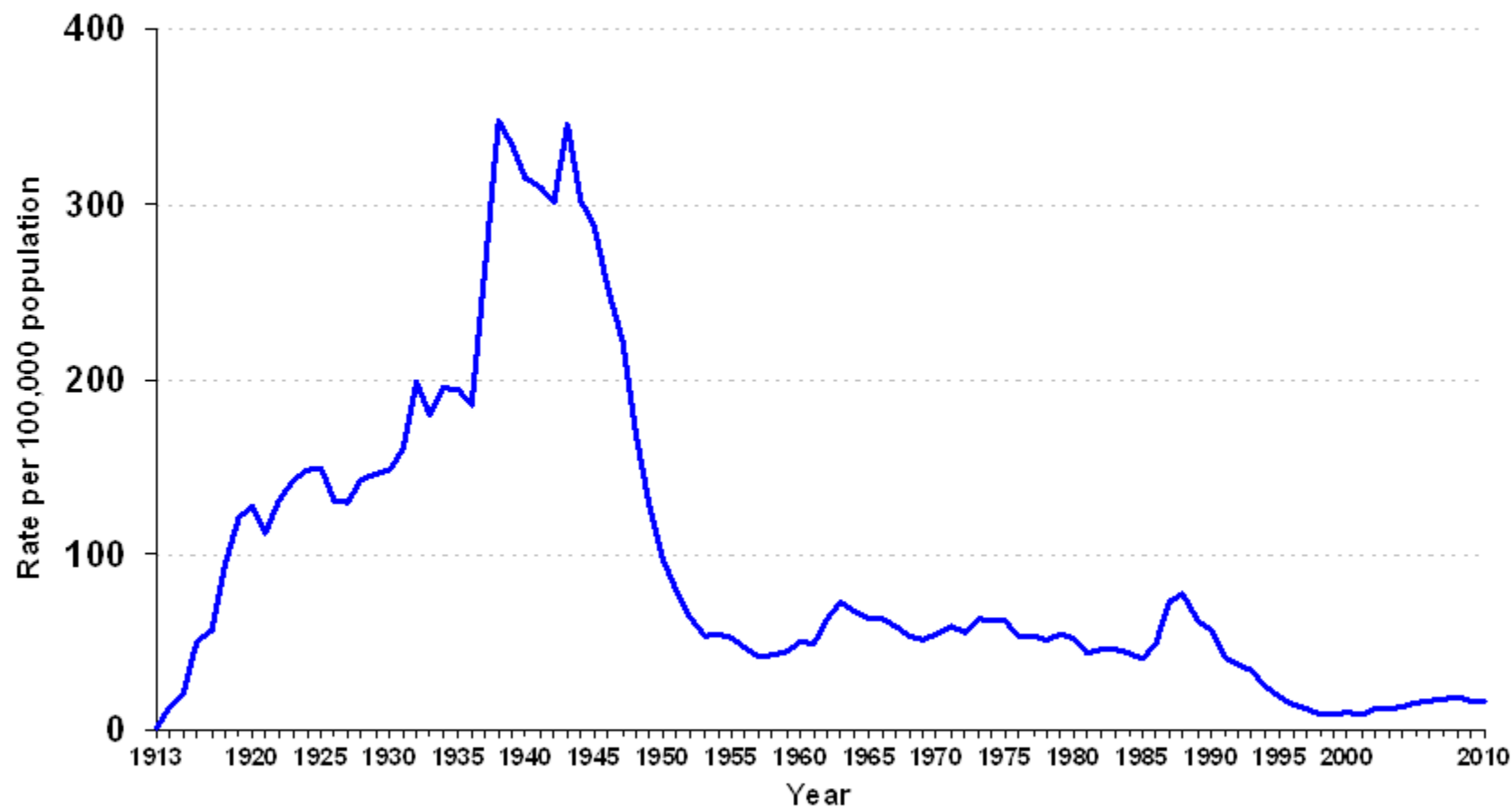
STD Clinic Sites: Long Beach (ended participation in 2007), Los Angeles (added in 2003), Orange, San Diego, San Francisco

# Gonococcal Isolate Surveillance Project (GISP), Percent of *Neisseria Gonorrhoeae* Isolates with CDC "Alert" Values for Cephalosporins in Five California STD Clinics, 1990–2010

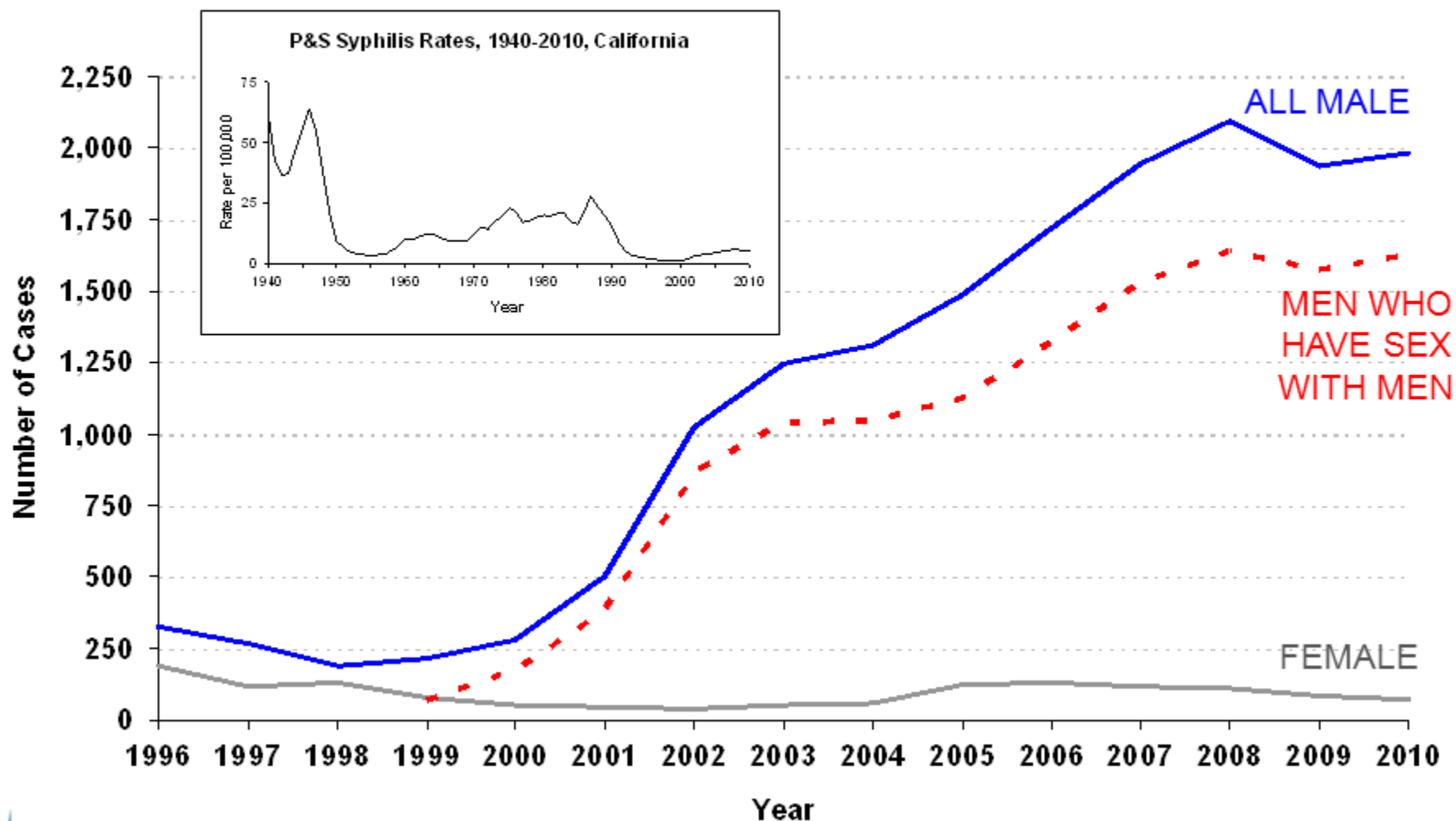


# Syphilis

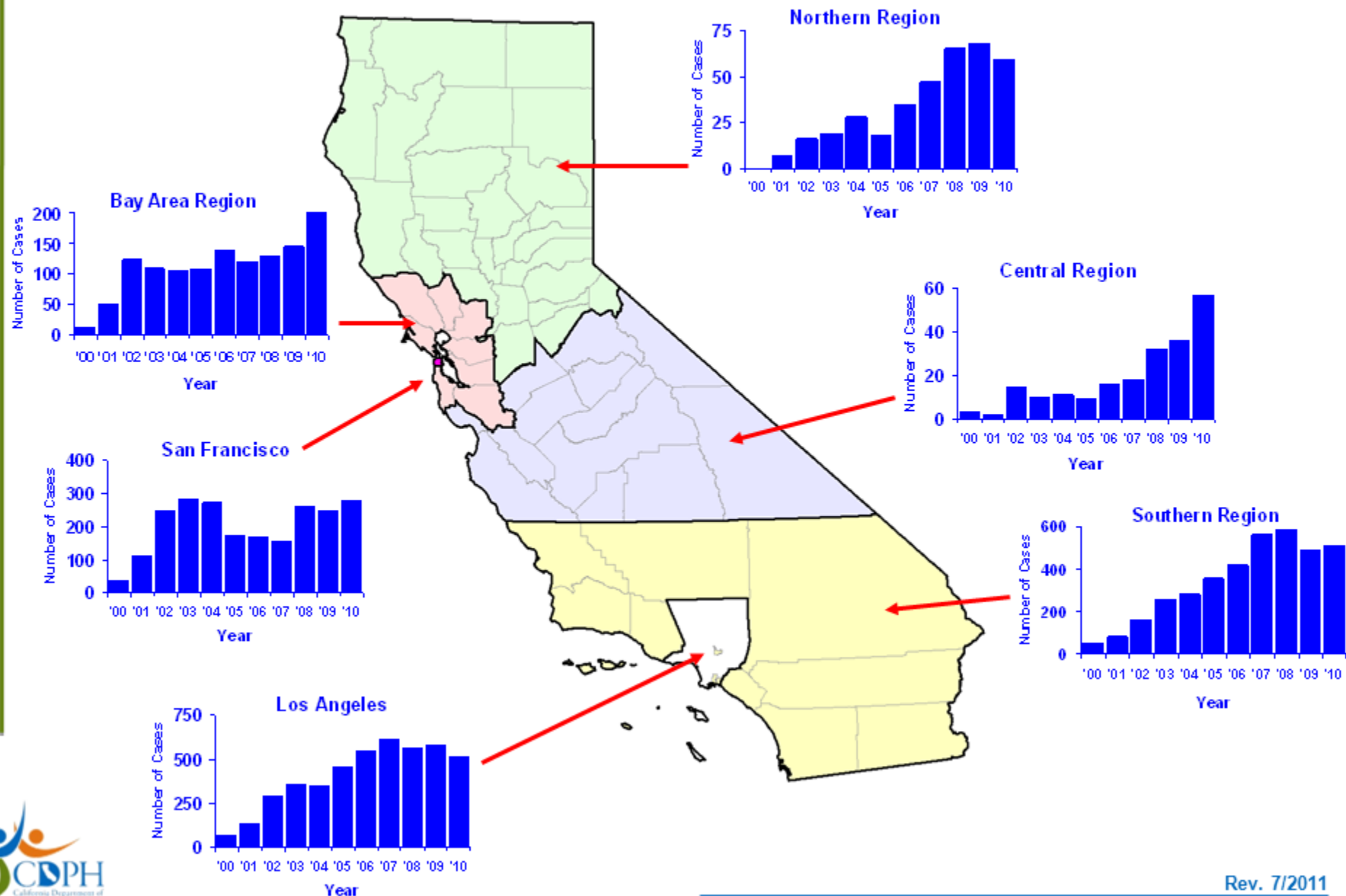
## Total Syphilis (all stages) California Rates, 1913–2010



## Primary & Secondary Syphilis, Cases by Gender California, 1996–2010

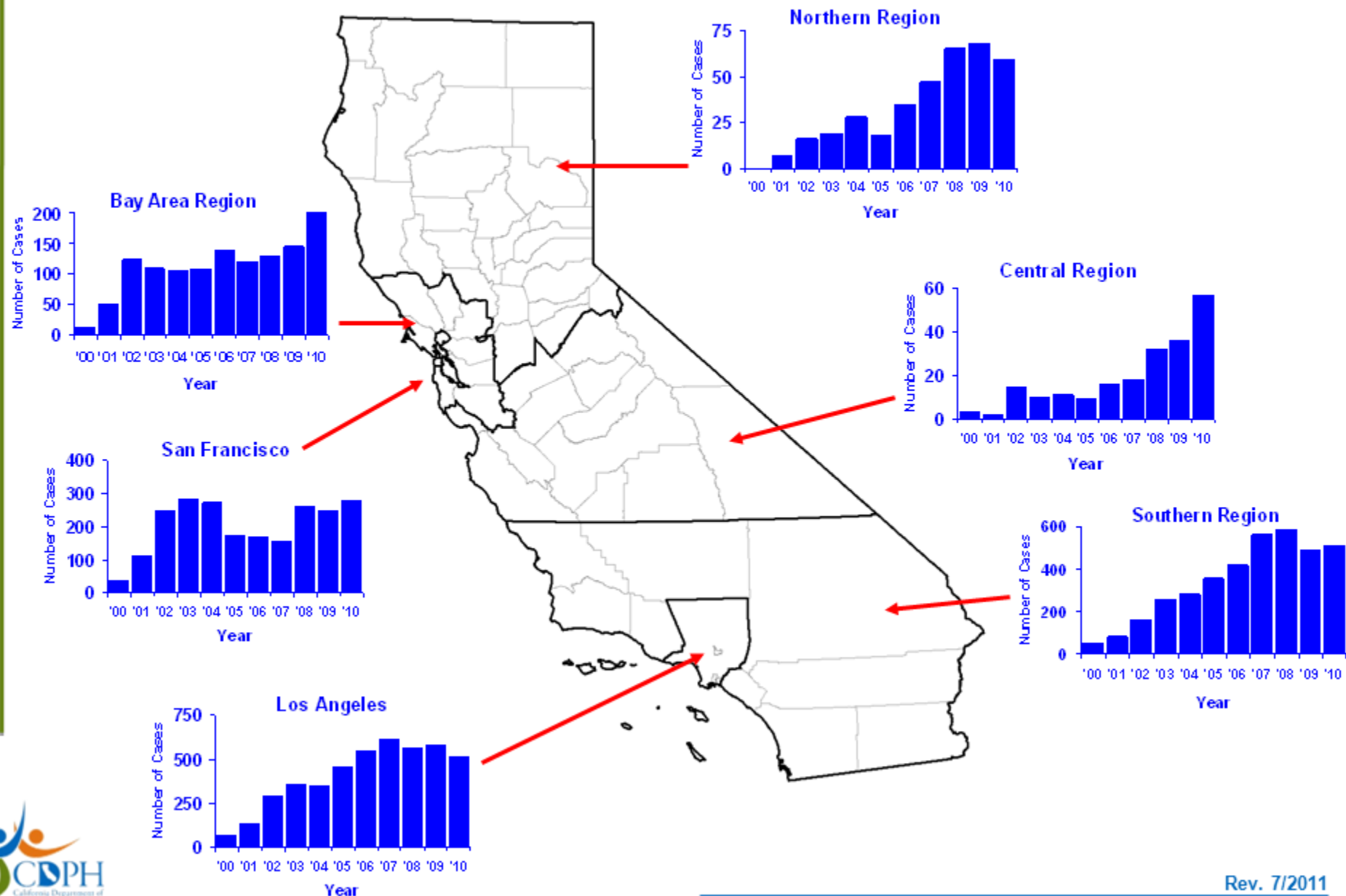


# Number of Men who Have Sex with Men, Primary & Secondary Syphilis Cases by Region and Year

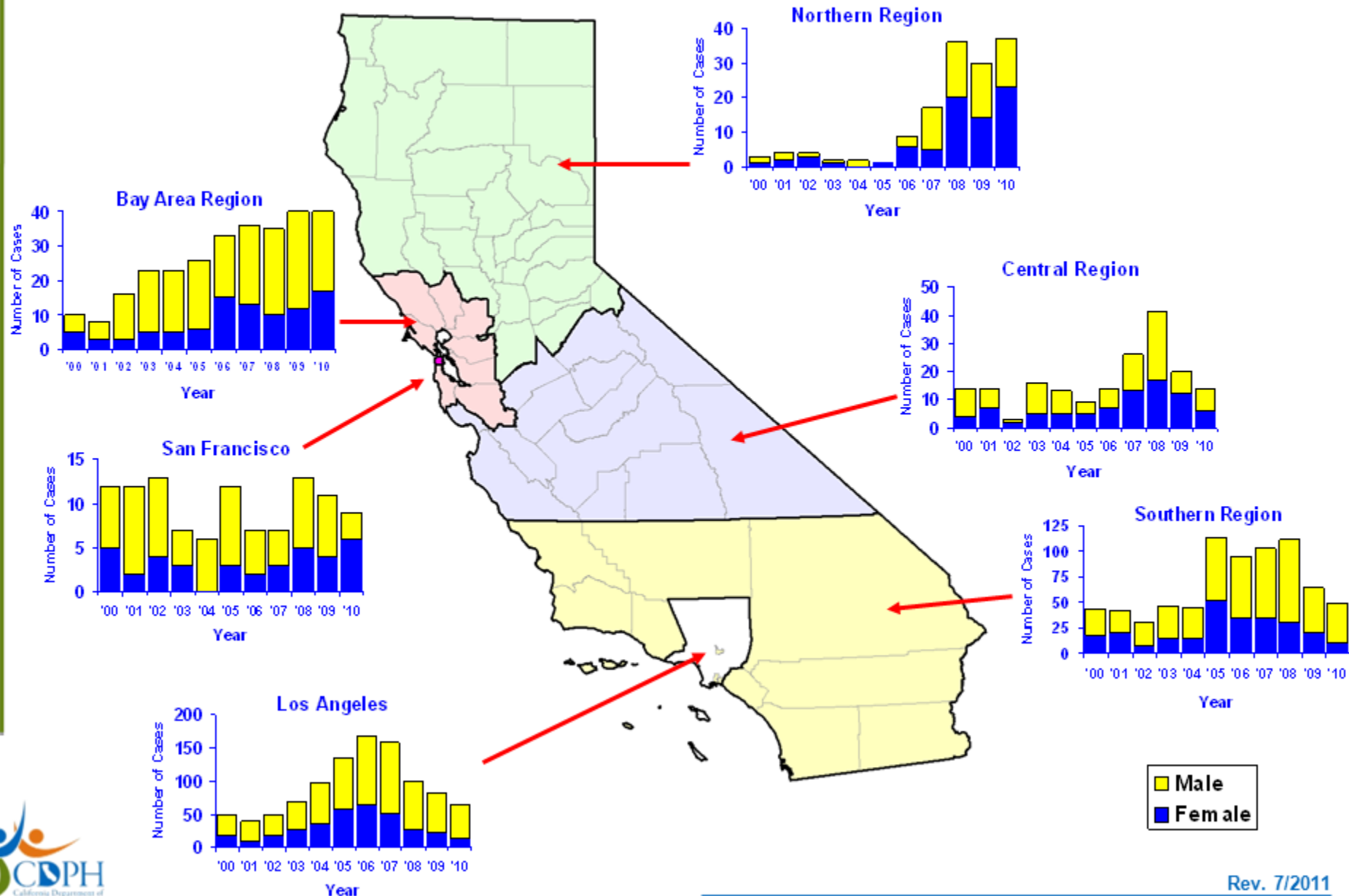




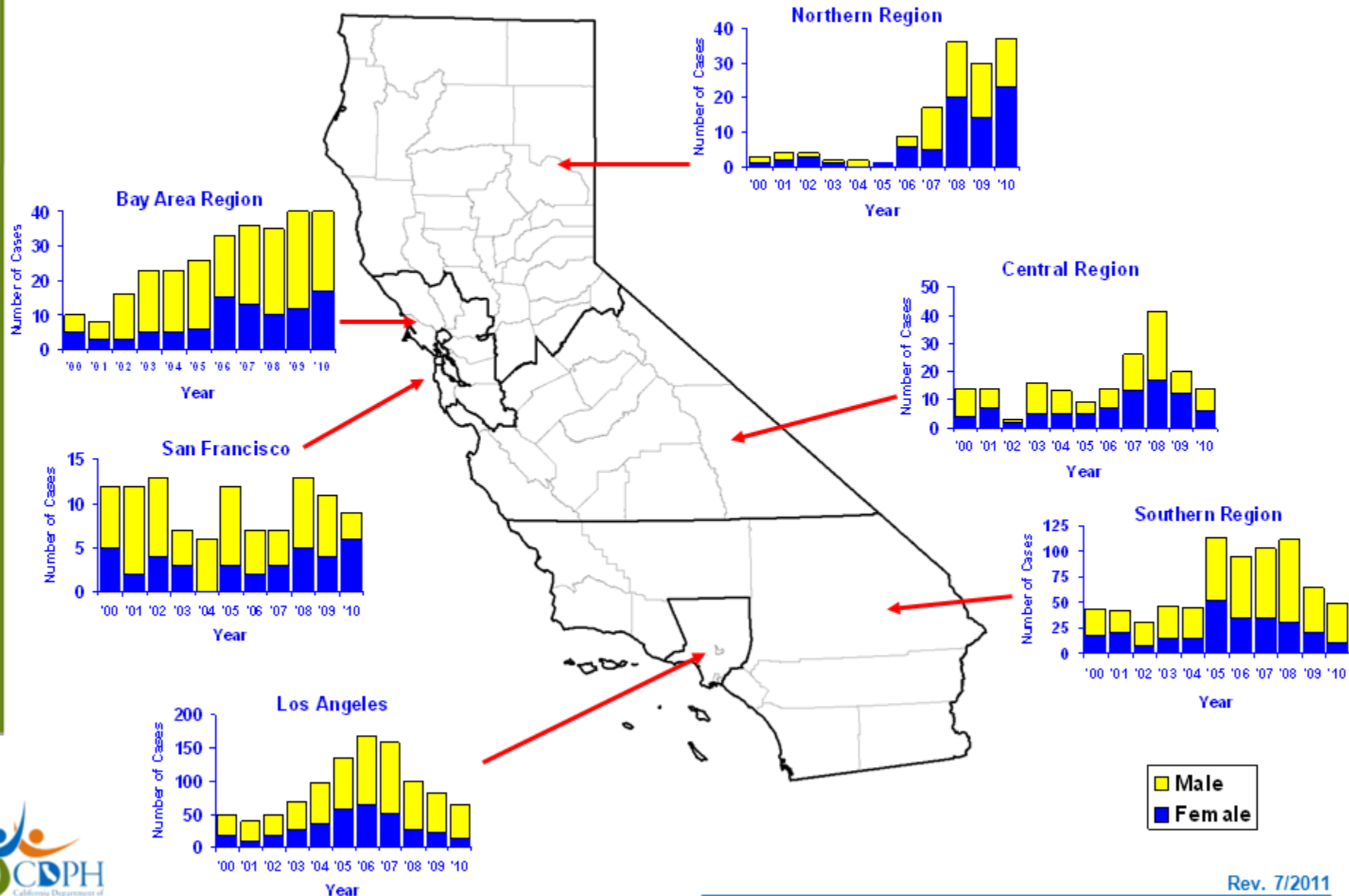
# Number of Men who Have Sex with Men, Primary & Secondary Syphilis Cases by Region and Year



# Number of Heterosexual Primary & Secondary Syphilis Cases by Region and Year

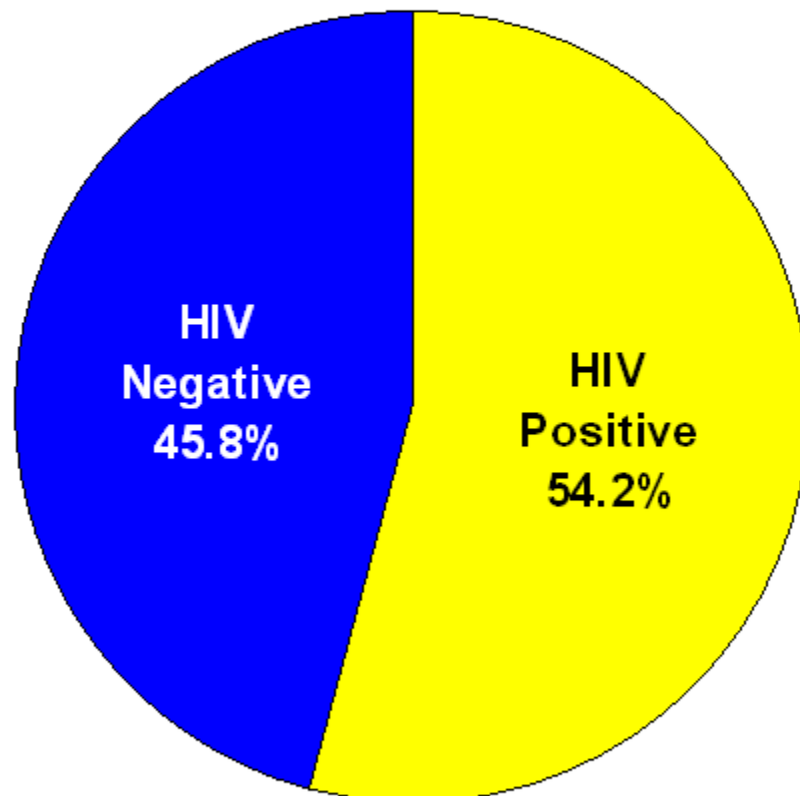


# Number of Heterosexual Primary & Secondary Syphilis Cases by Region and Year



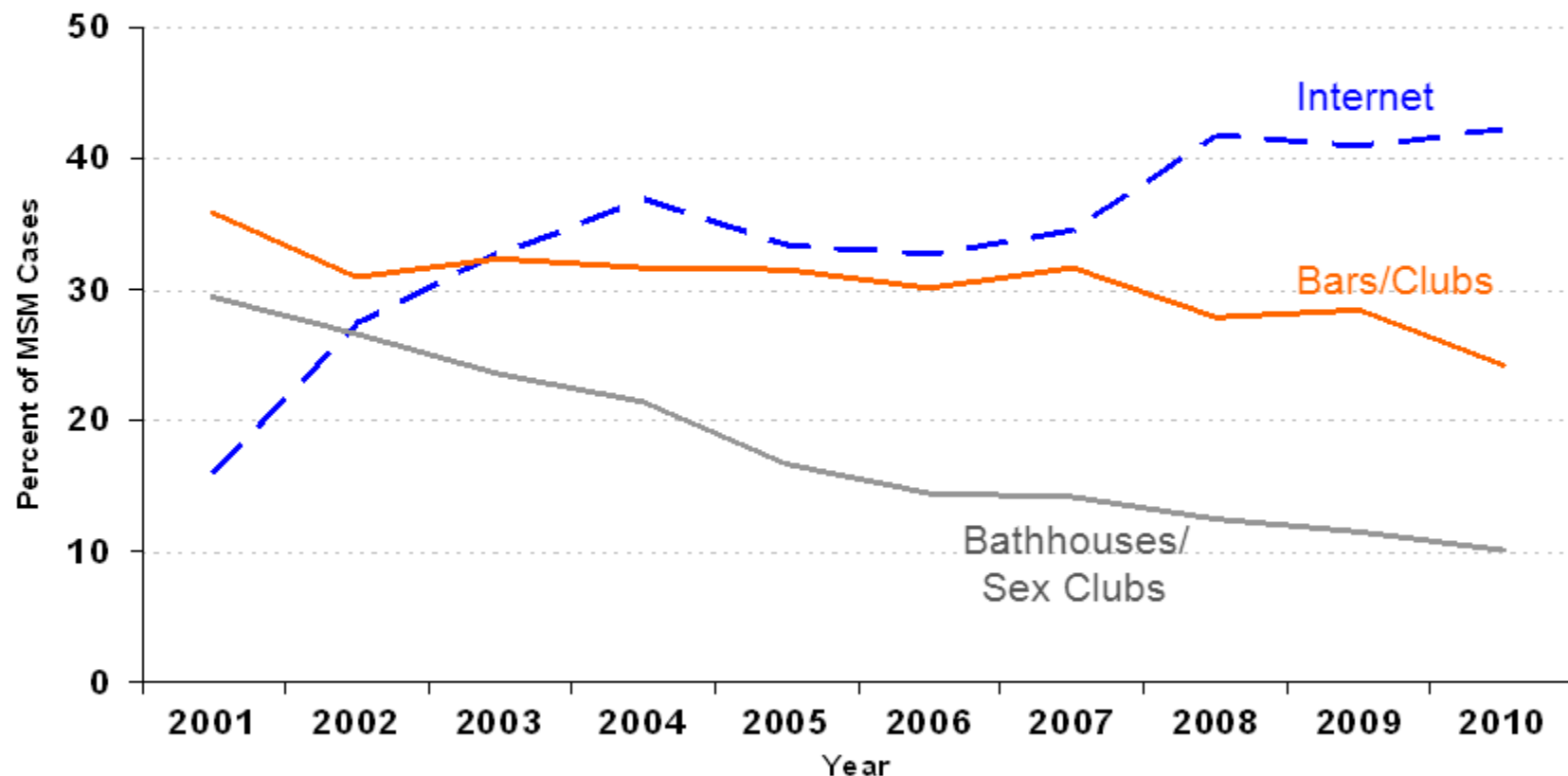
**HIV Status among Interviewed Men who Have Sex with Men  
Primary & Secondary Syphilis Cases  
California, 2010**

**(N=1,408)**

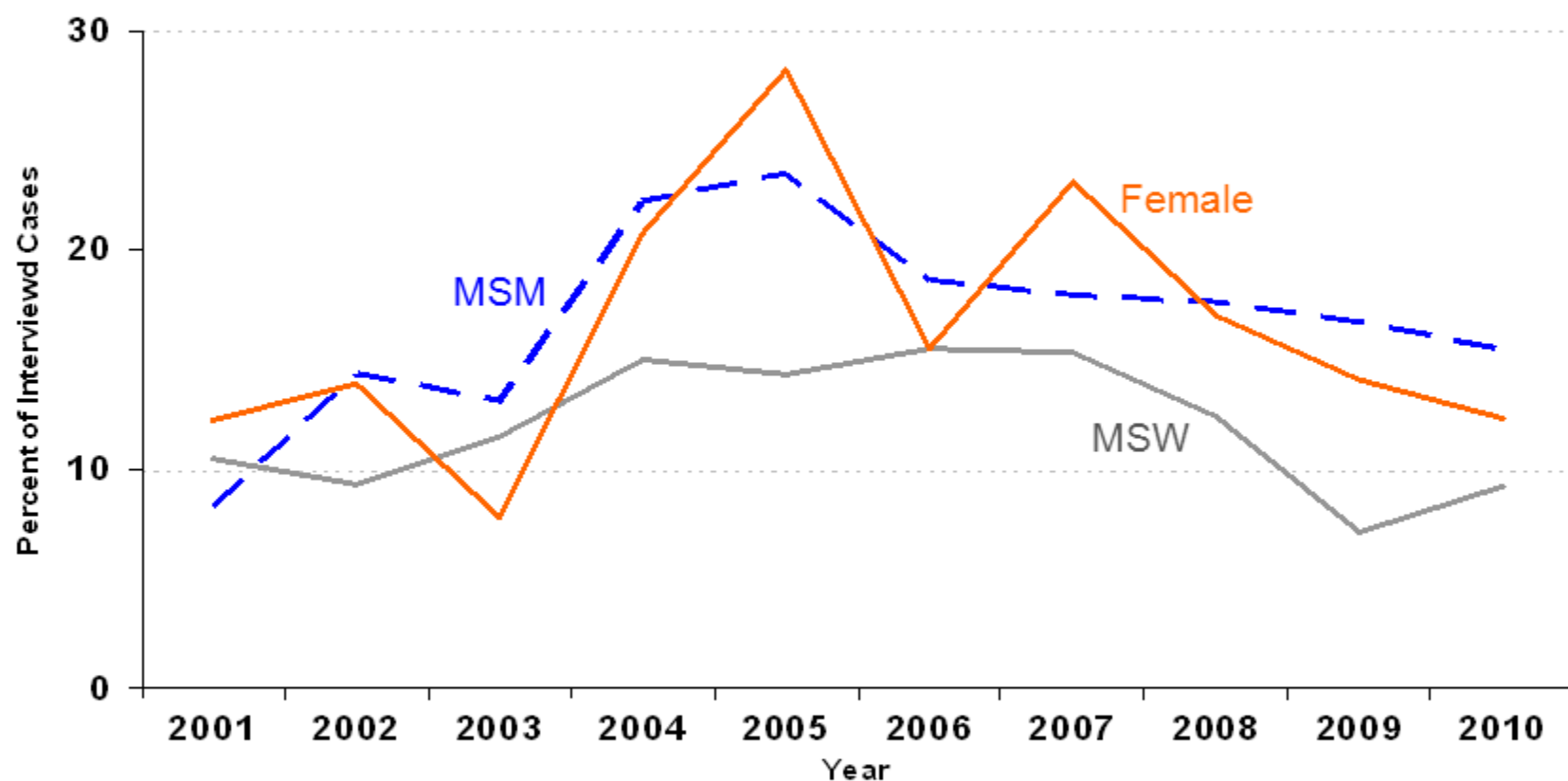


Note: N does not include HIV status unknown or refused: 71 cases in 2010.

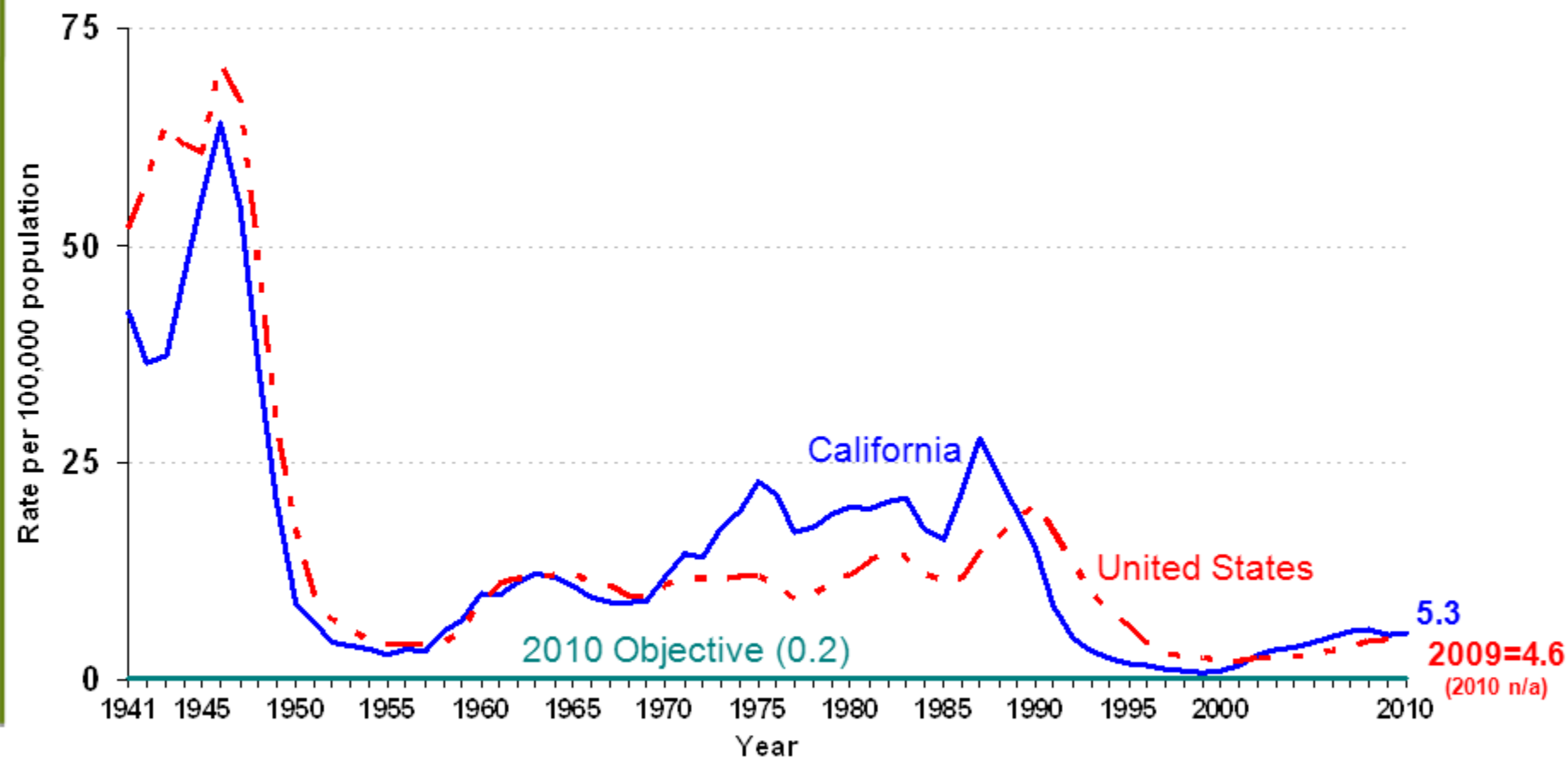
**Percent Reporting Meeting Partners at Specified Venues  
Interviewed Men who Have Sex with Men  
Primary & Secondary Syphilis Cases, California, 2001–2010**



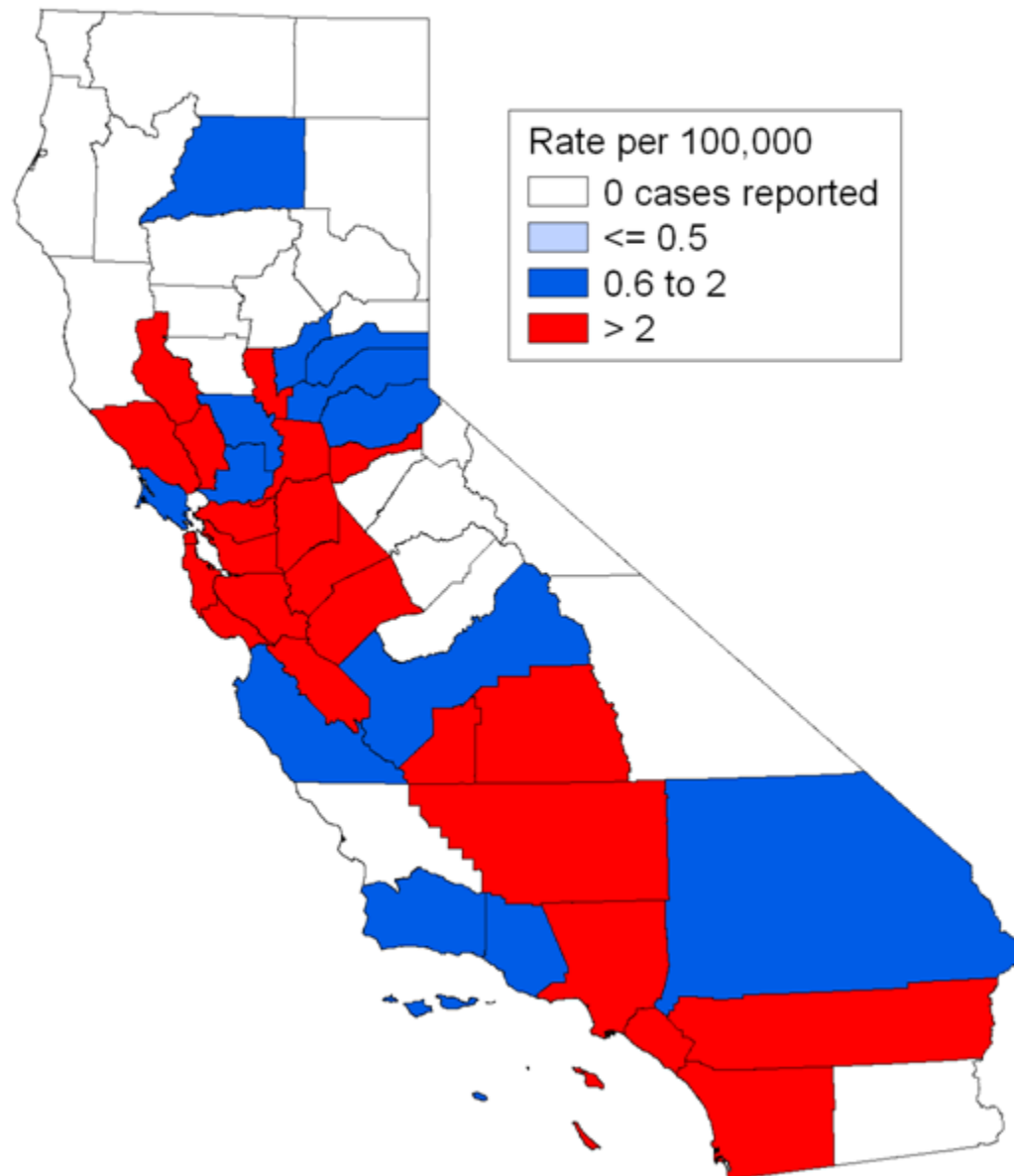
## Percent of Interviewed Primary & Secondary Syphilis Cases Reporting Methamphetamine Use, by Sexual Orientation, California, 2001–2010



## Primary & Secondary Syphilis California versus United States Rates, 1941–2010

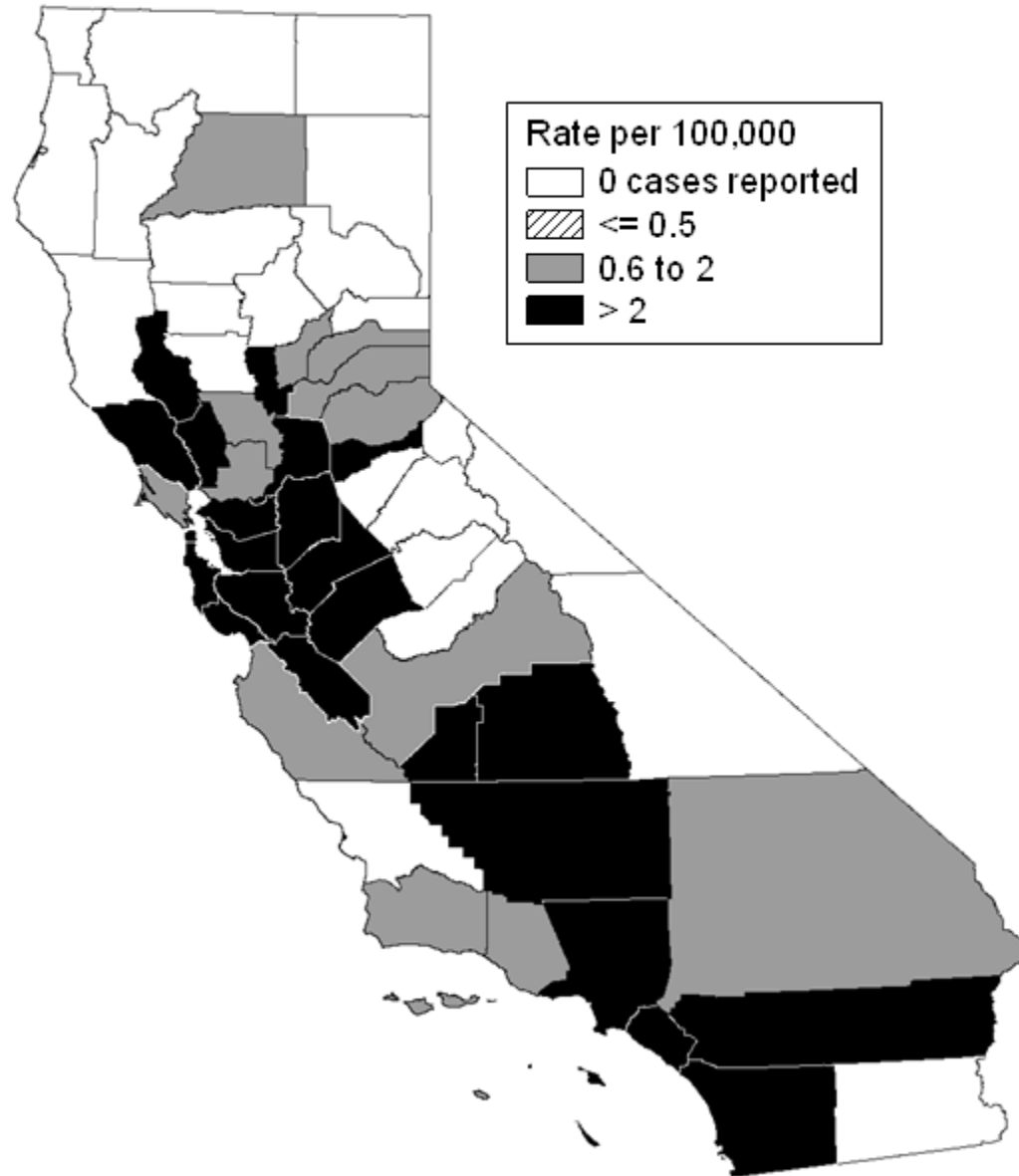


## Primary & Secondary Syphilis, Rates by County California, 2010

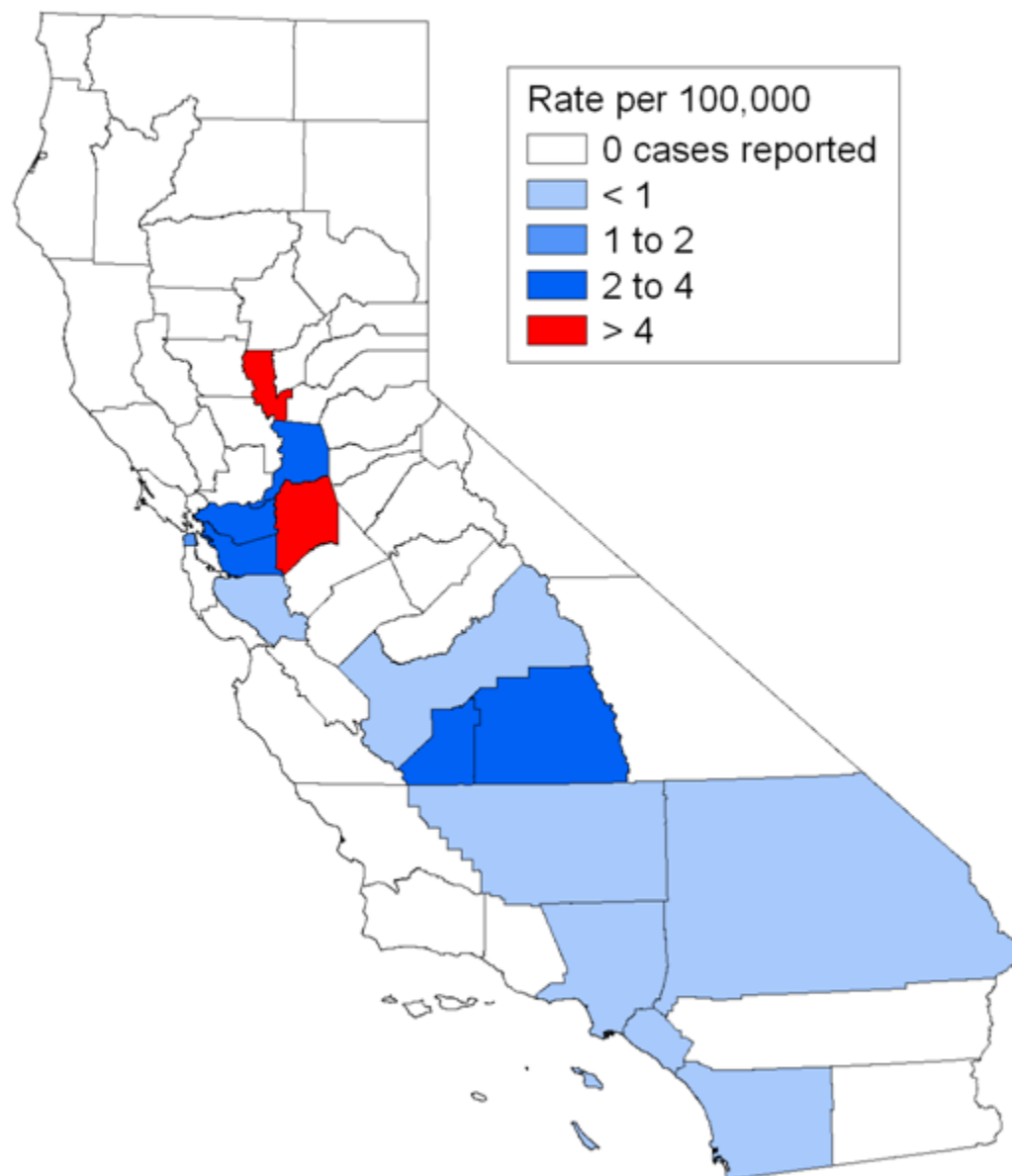




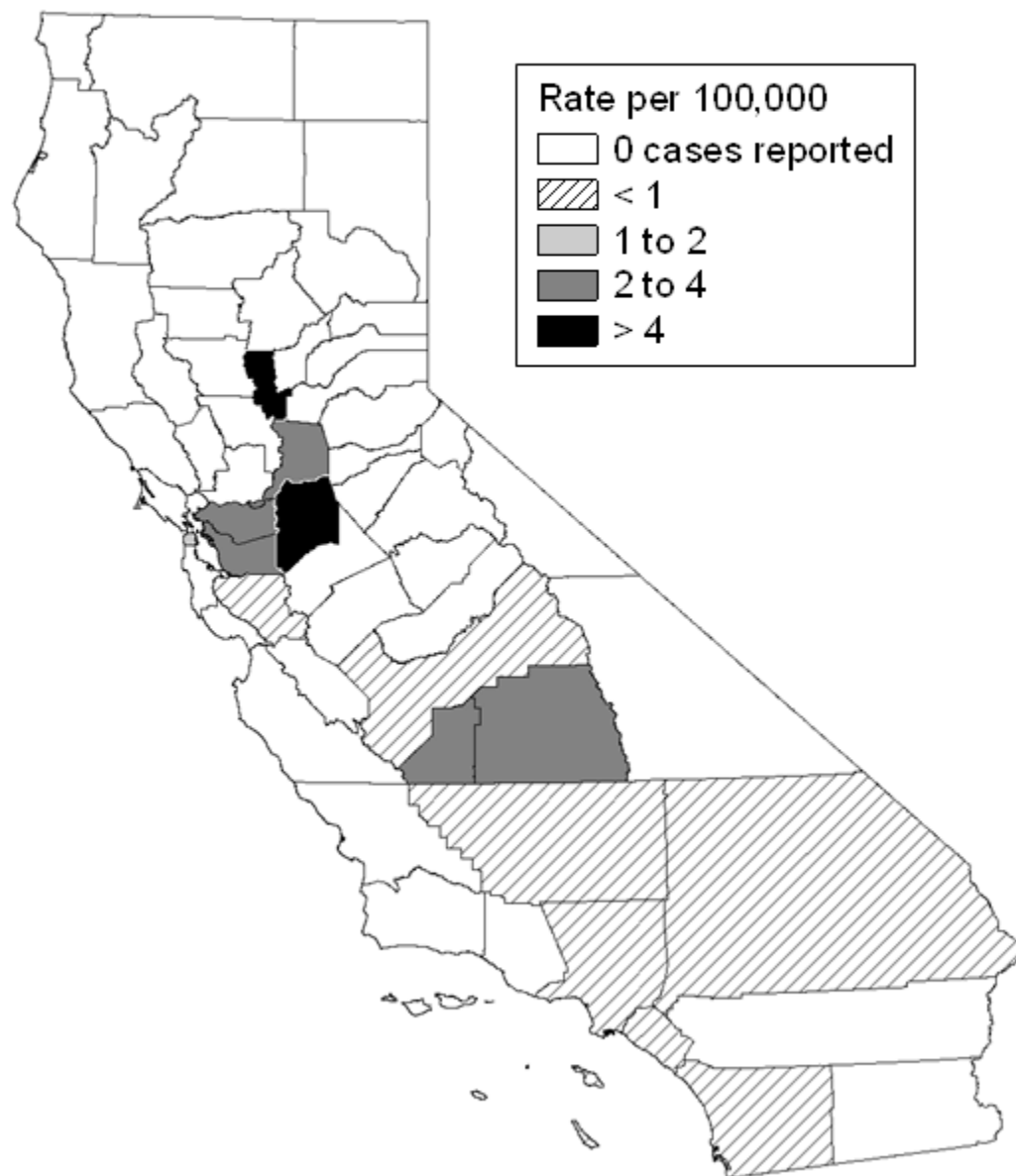
## Primary & Secondary Syphilis, Rates by County California, 2010



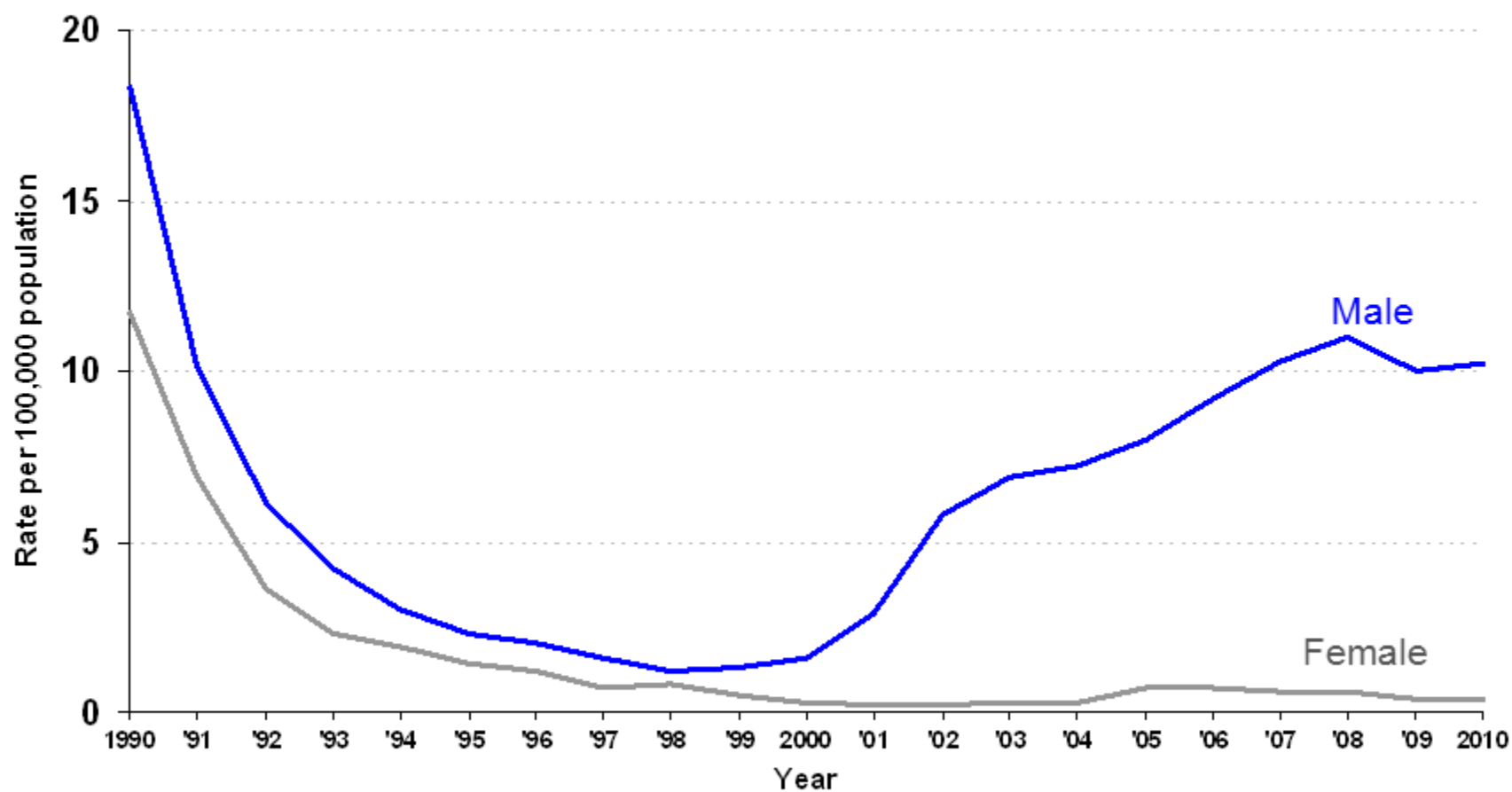
**Primary & Secondary Syphilis among Females of Childbearing Age (15-44)  
Rates by County, California, 2010**



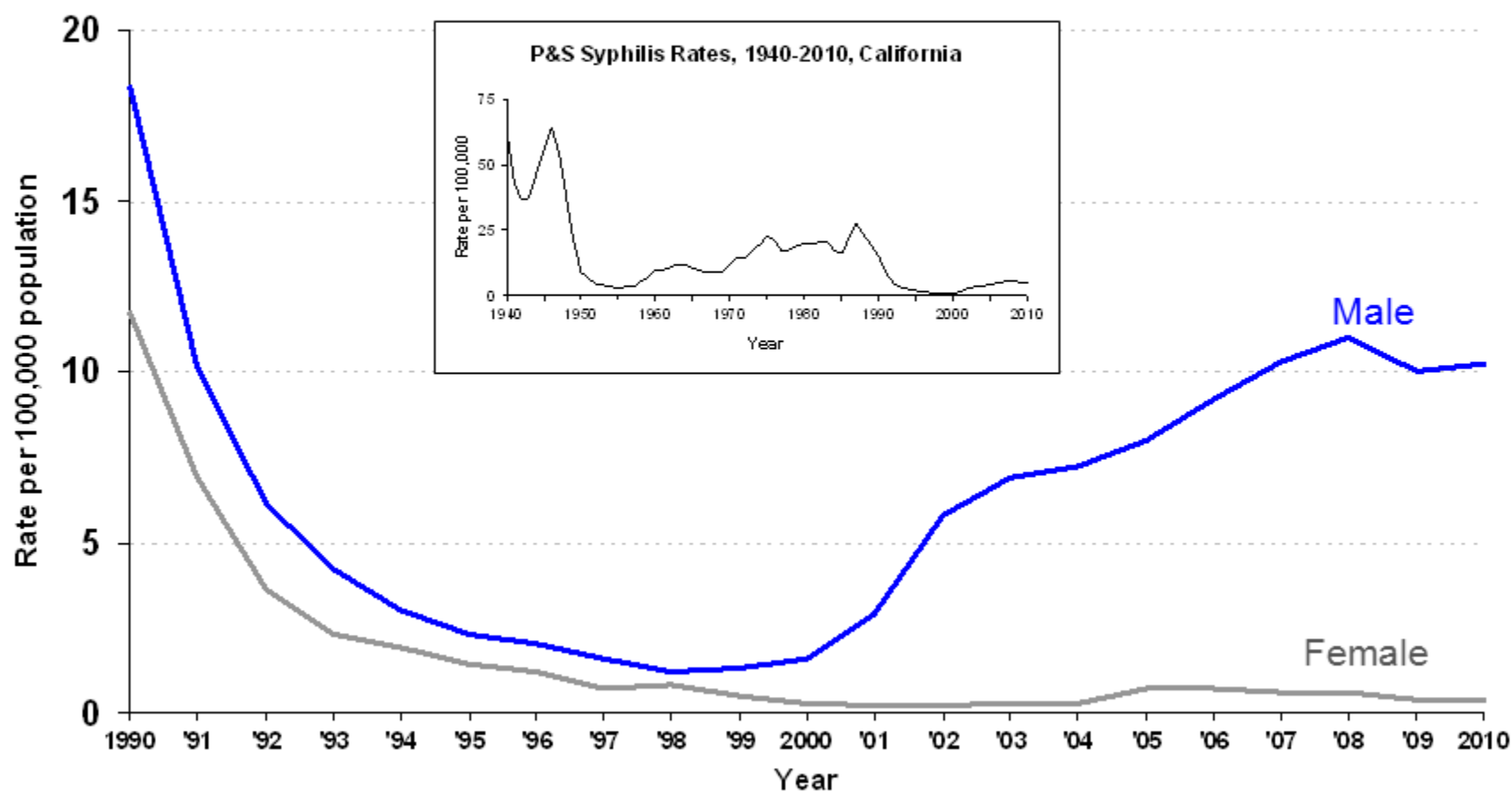
## Primary & Secondary Syphilis among Females of Childbearing Age (15-44) Rates by County, California, 2010



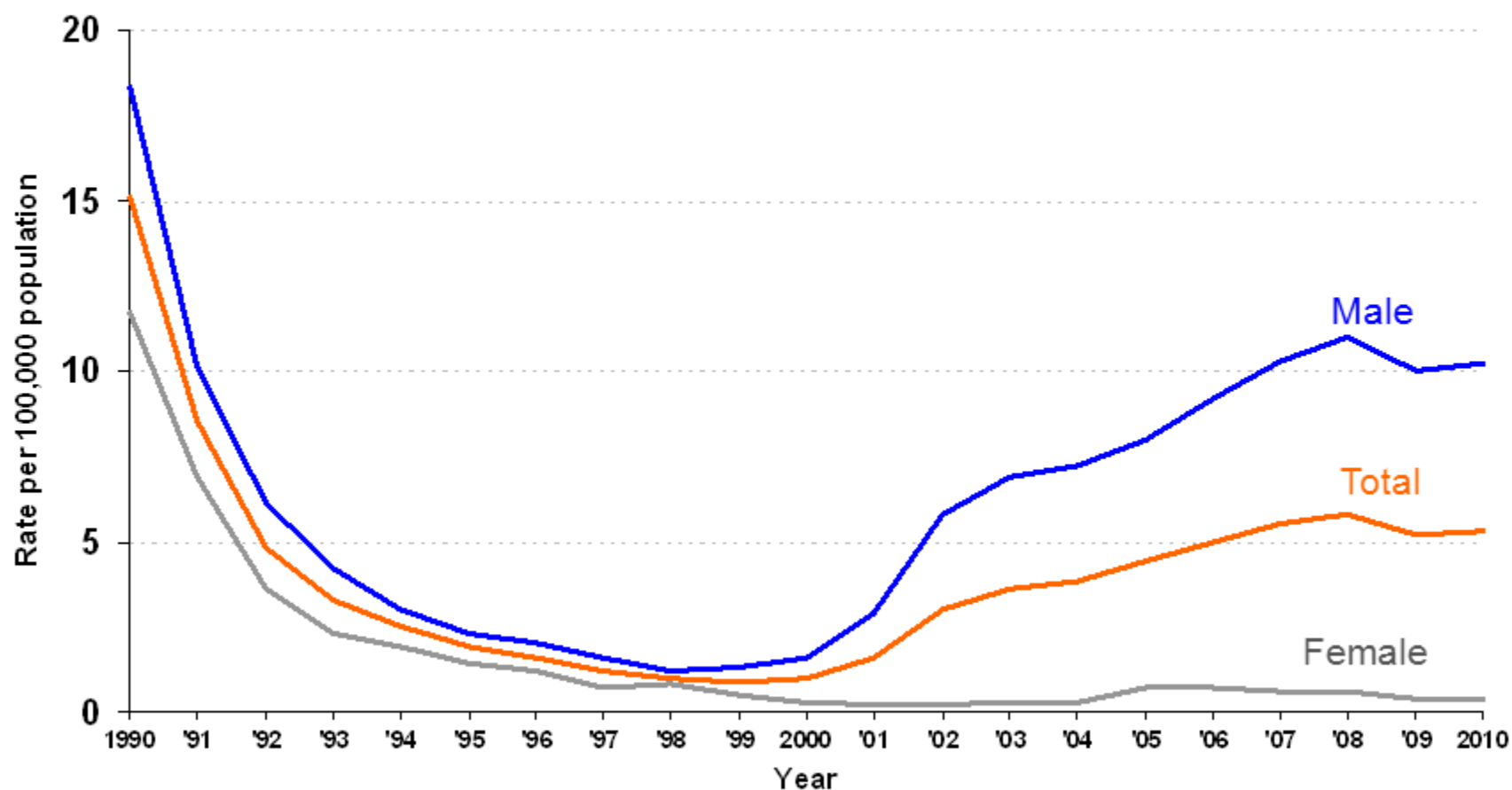
## Primary & Secondary Syphilis, Rates by Gender California, 1990–2010



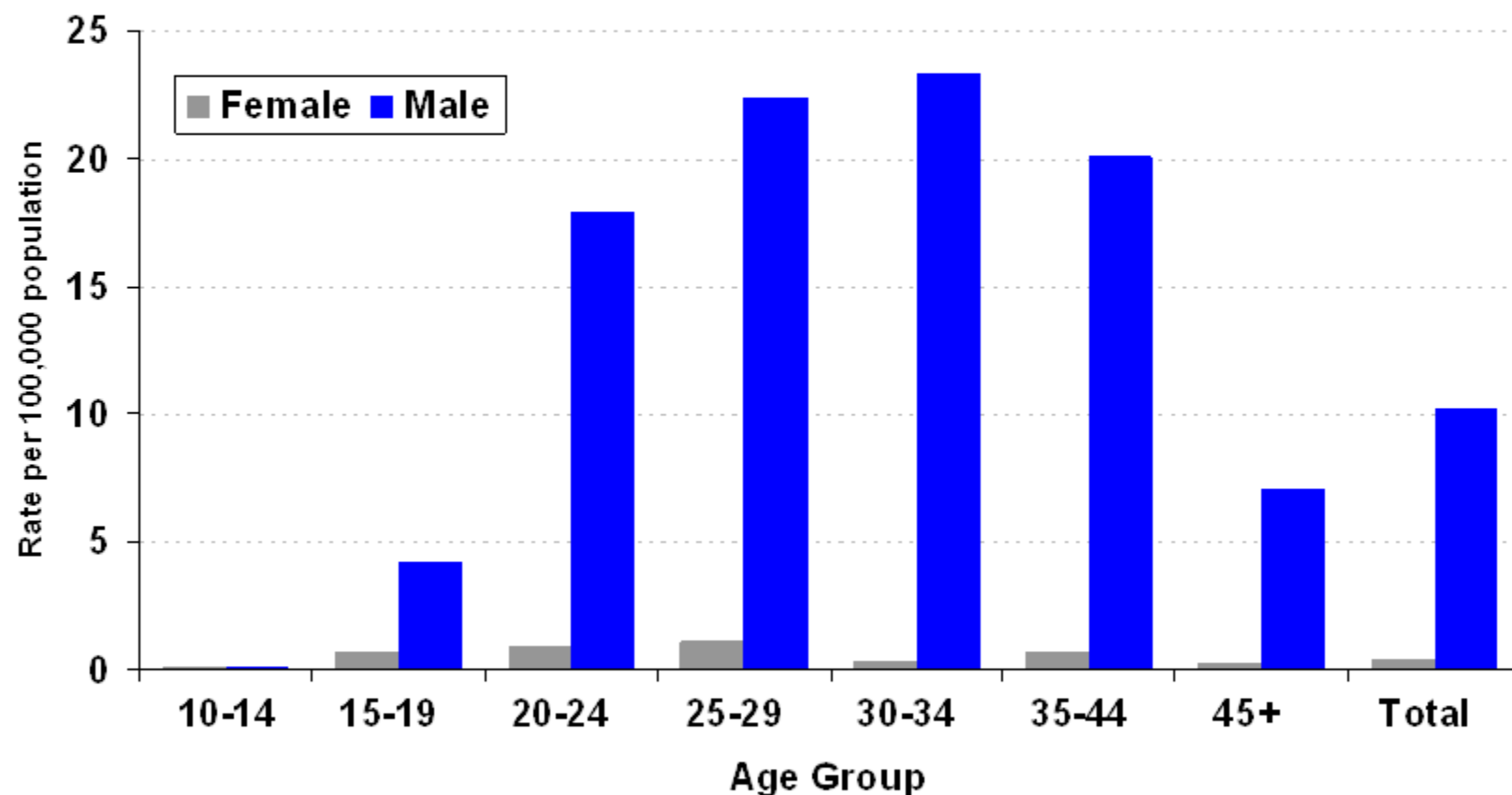
## Primary & Secondary Syphilis, Rates by Gender California, 1990–2010



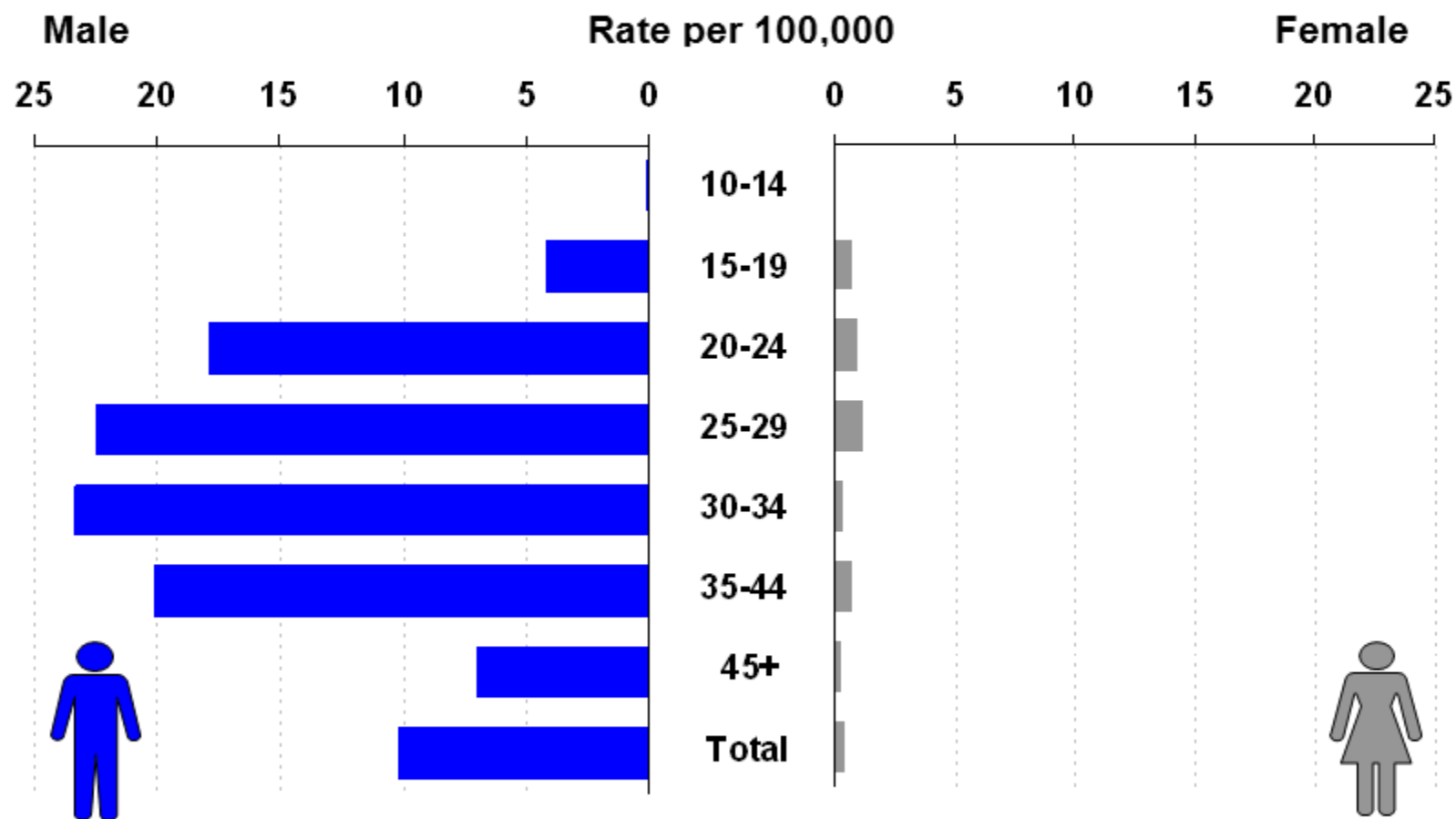
## Primary & Secondary Syphilis, Rates by Gender California, 1990–2010



## Primary & Secondary Syphilis Rates by Gender and Age Group, California, 2010

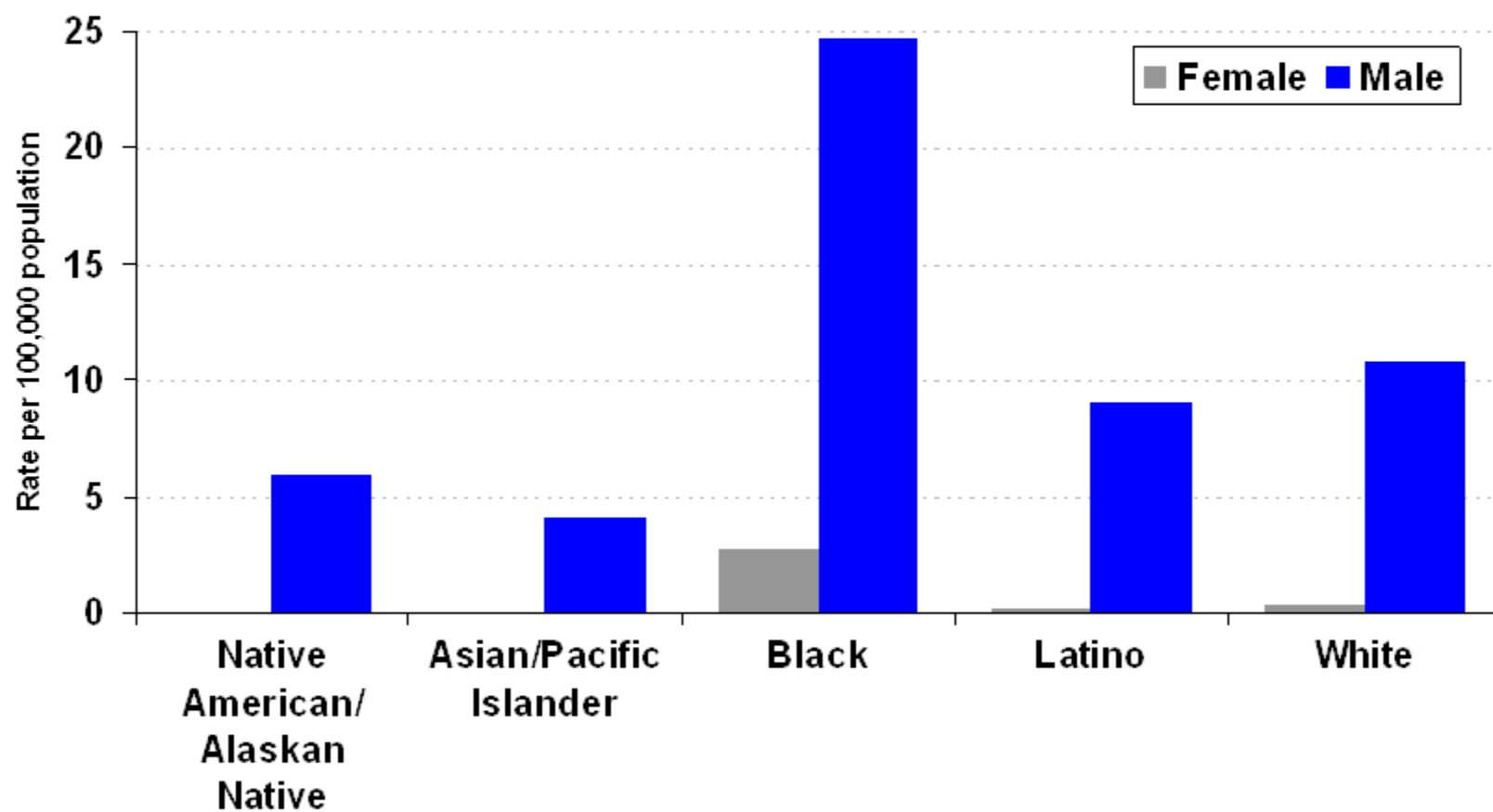


# Primary & Secondary Syphilis Rates by Gender and Age Group, California, 2010

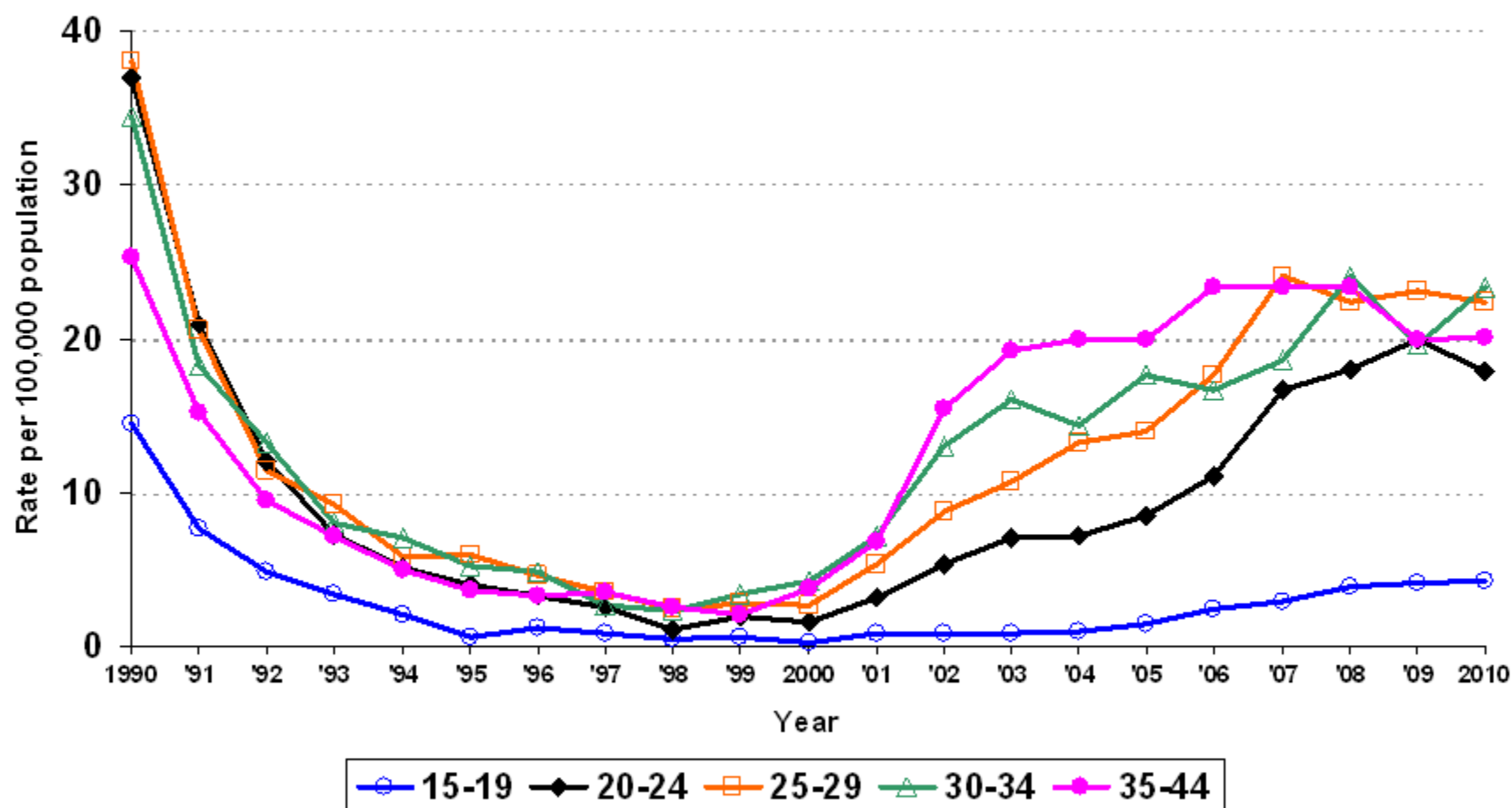




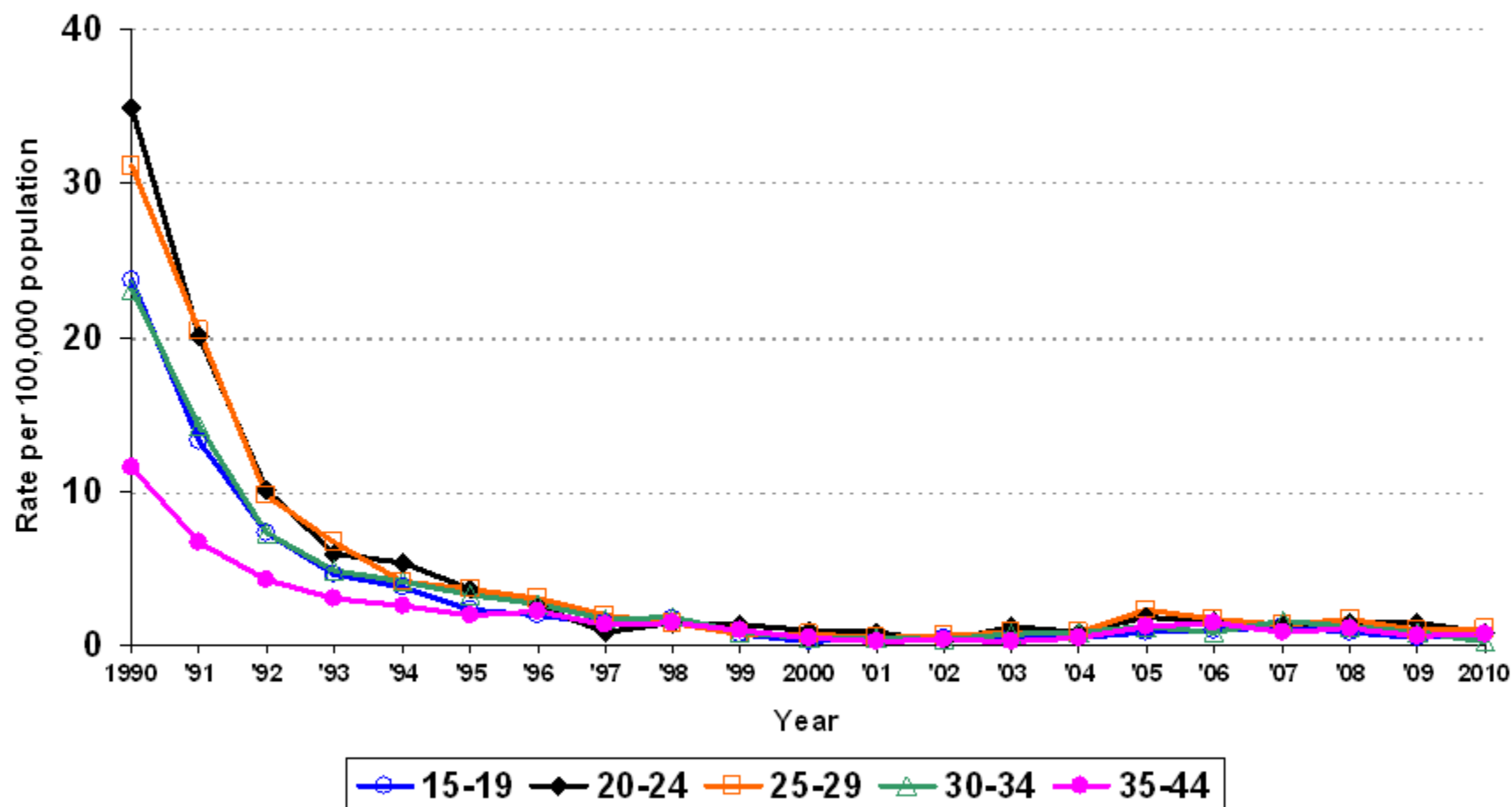
## Primary & Secondary Syphilis Rates by Gender and Race/Ethnicity, California, 2010



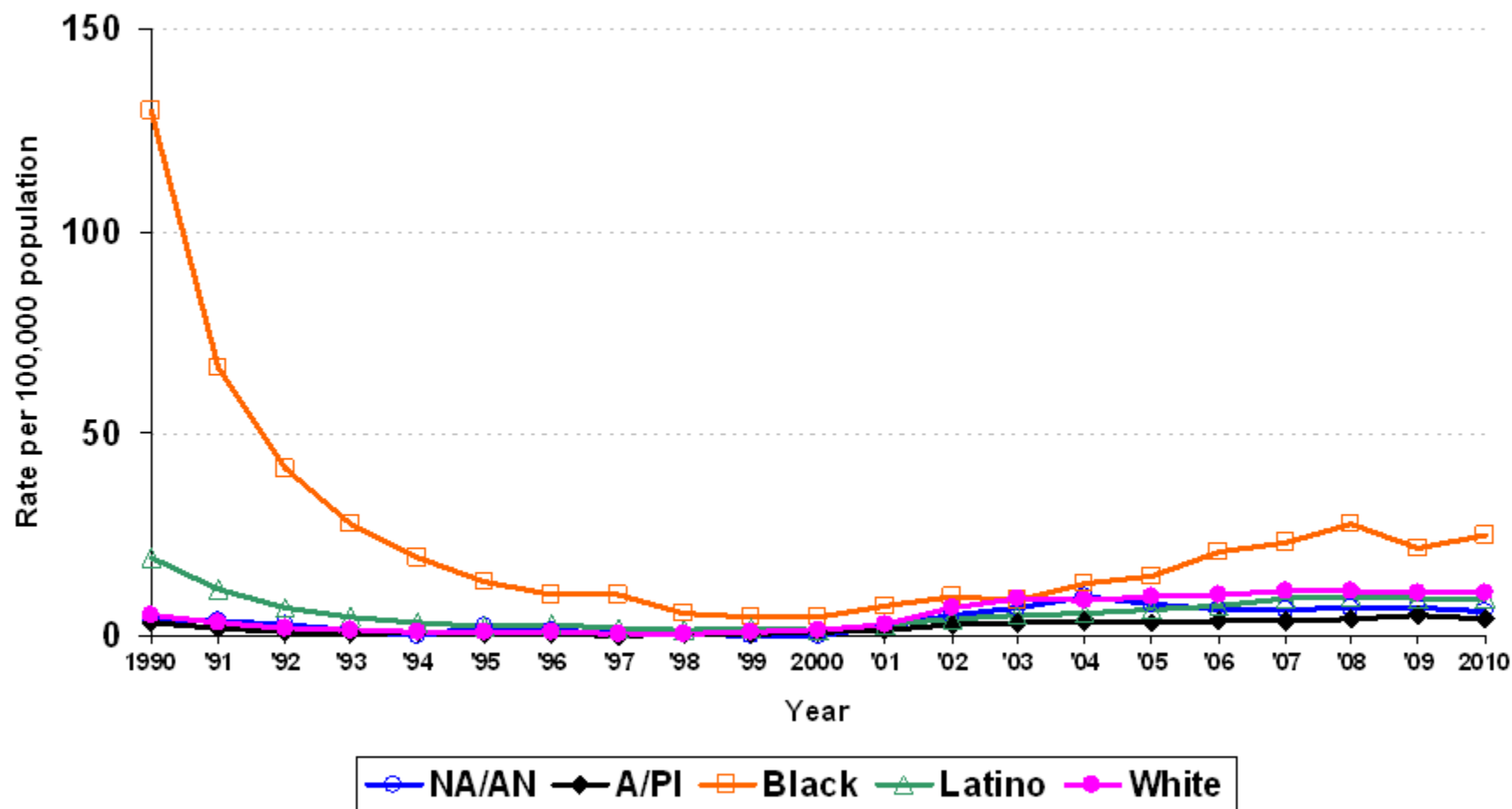
# Primary & Secondary Syphilis Rates for Males by Age Group (in years), California, 1990–2010



## Primary & Secondary Syphilis Rates for Females by Age Group (in years), California, 1990–2010



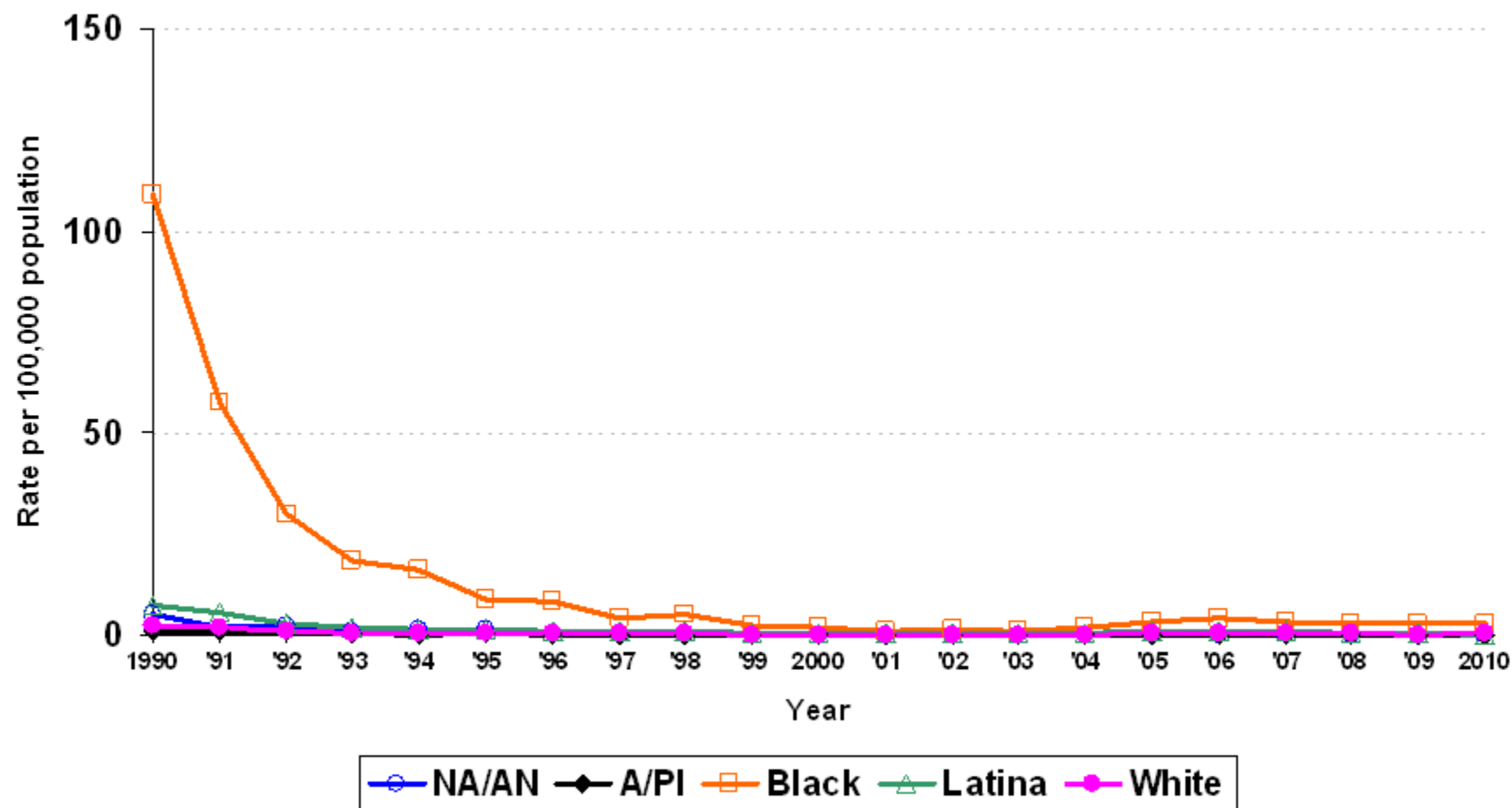
## Primary & Secondary Syphilis Rates for Males by Race/Ethnicity, California, 1990–2010



Note: NA/AN = Native American/Alaskan Native, A/PI = Asian/Pacific Islander.

Race/ethnicity "Not Specified" ranged from 1.1% to 7.1% of cases for males in any given year.

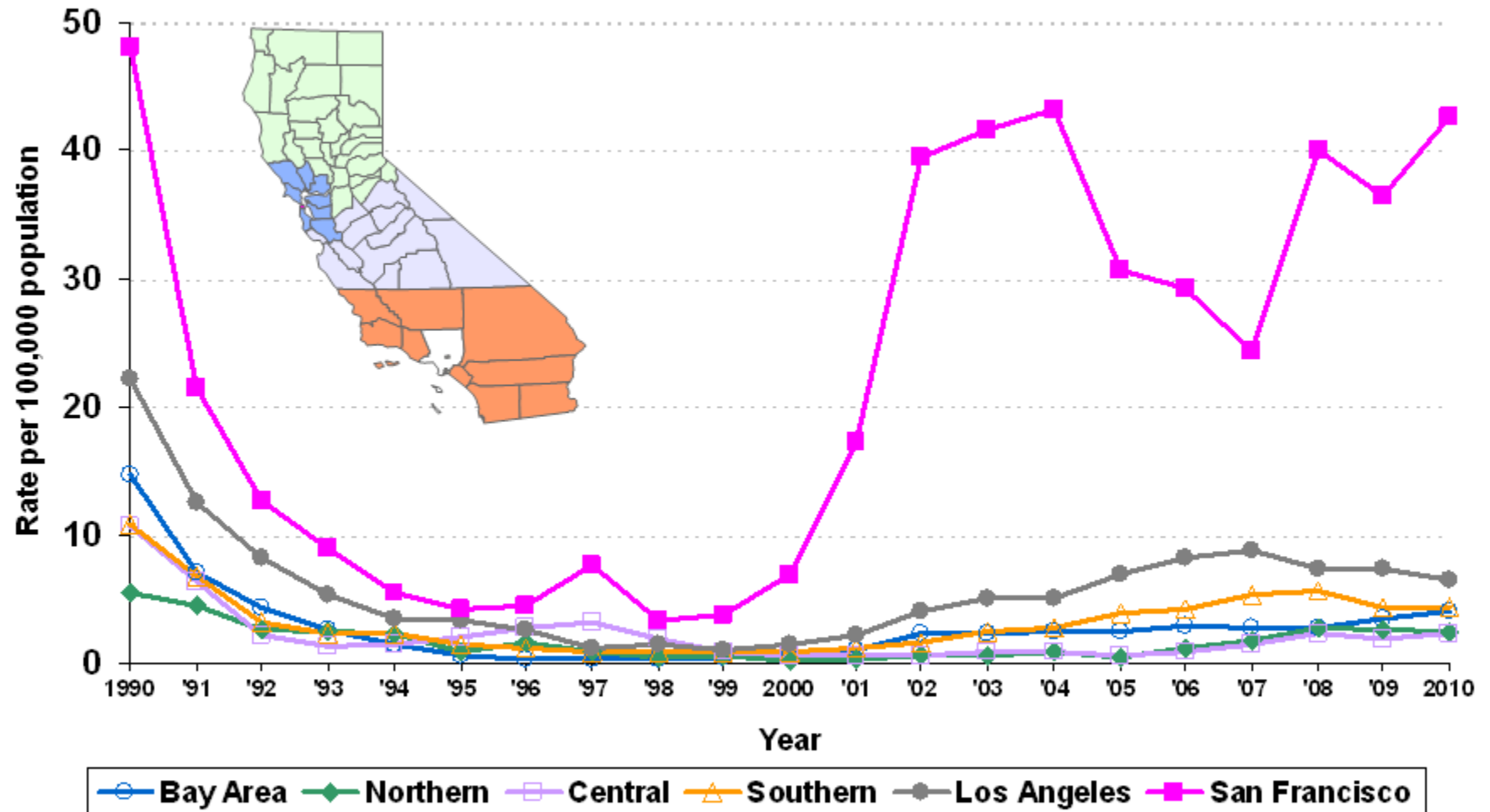
## Primary & Secondary Syphilis Rates for Females by Race/Ethnicity, California, 1990–2010



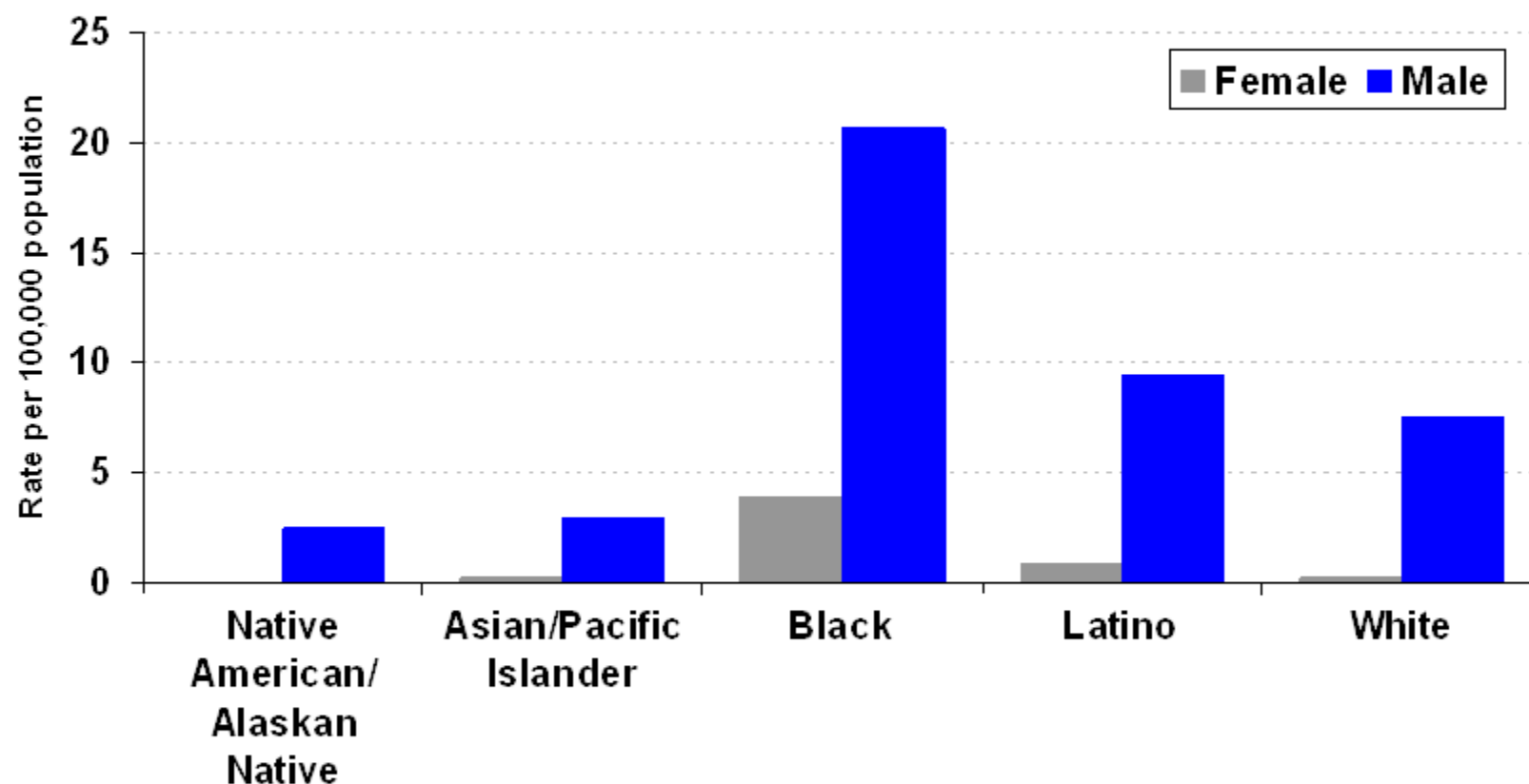
Note: NA/AN = Native American/Alaskan Native, A/PI = Asian/Pacific Islander.

Race/ethnicity "Not Specified" ranged from 0% to 6.7% of cases for females in any given year.

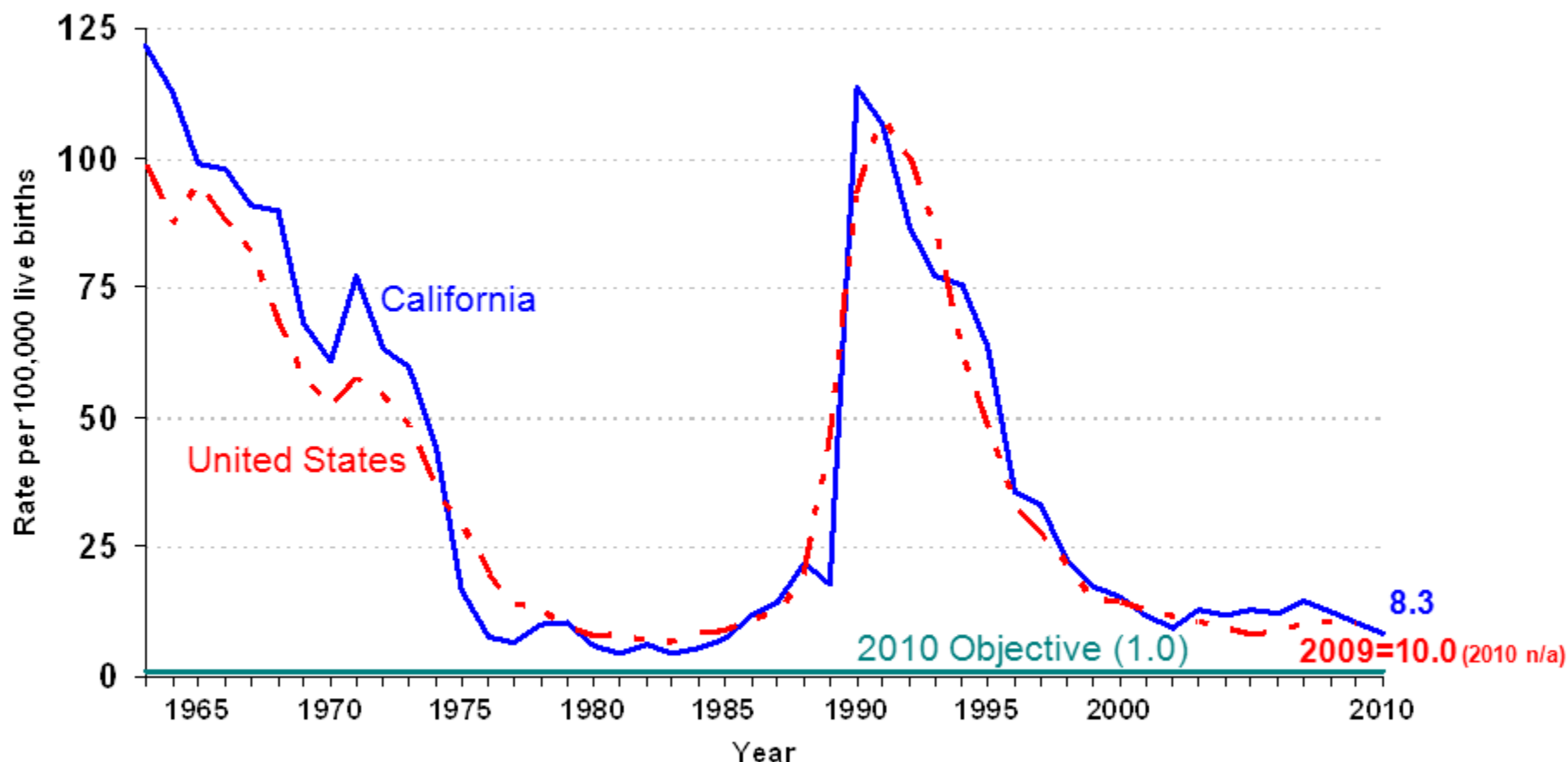
## Primary & Secondary Syphilis, Rates by Region California, 1990–2010



## Early Latent Syphilis Rates by Gender and Race/Ethnicity, California, 2010



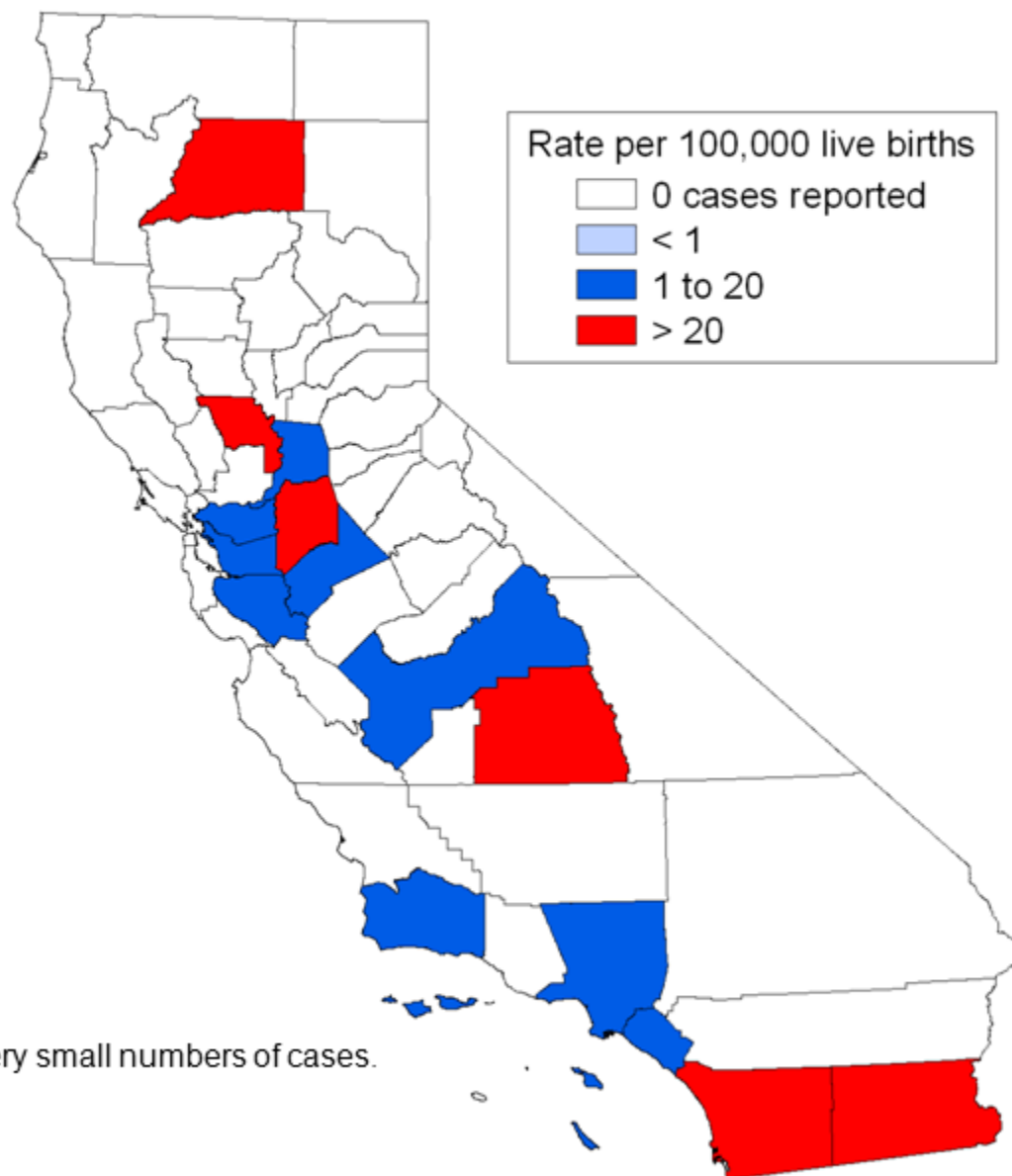
## Congenital Syphilis in Infants < 1 Year of Age California versus United States Rates, 1963–2010



Note: The Modified Kaufman Criteria were used through 1989. The CDC Case Definition (MMWR 1989; 48: 828) was used effective January 1, 1990. California data prior to 1985 include all cases of congenital syphilis, regardless of age.

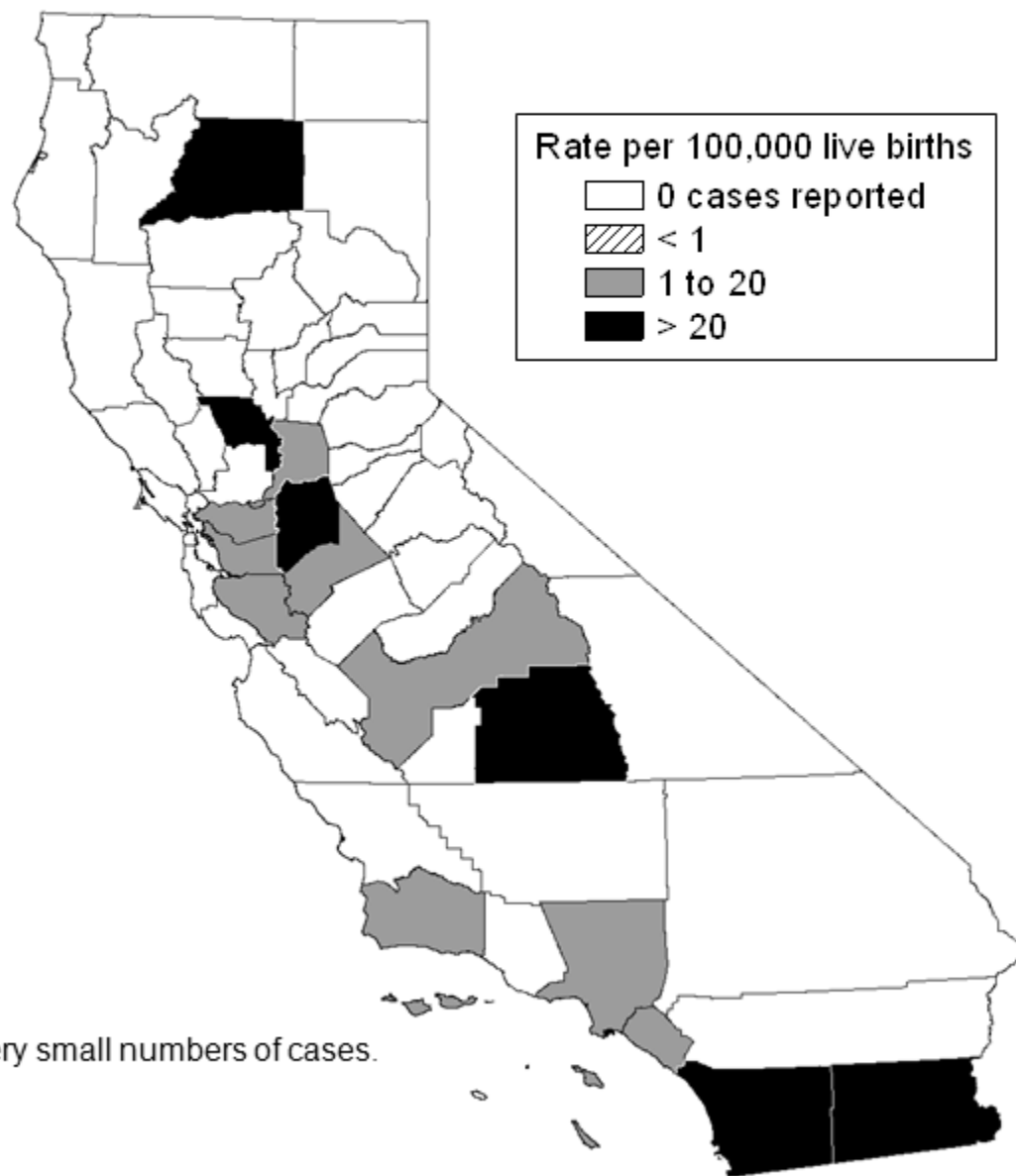


## Congenital Syphilis in Infants < 1 Year of Age Rates by County, California, 2010



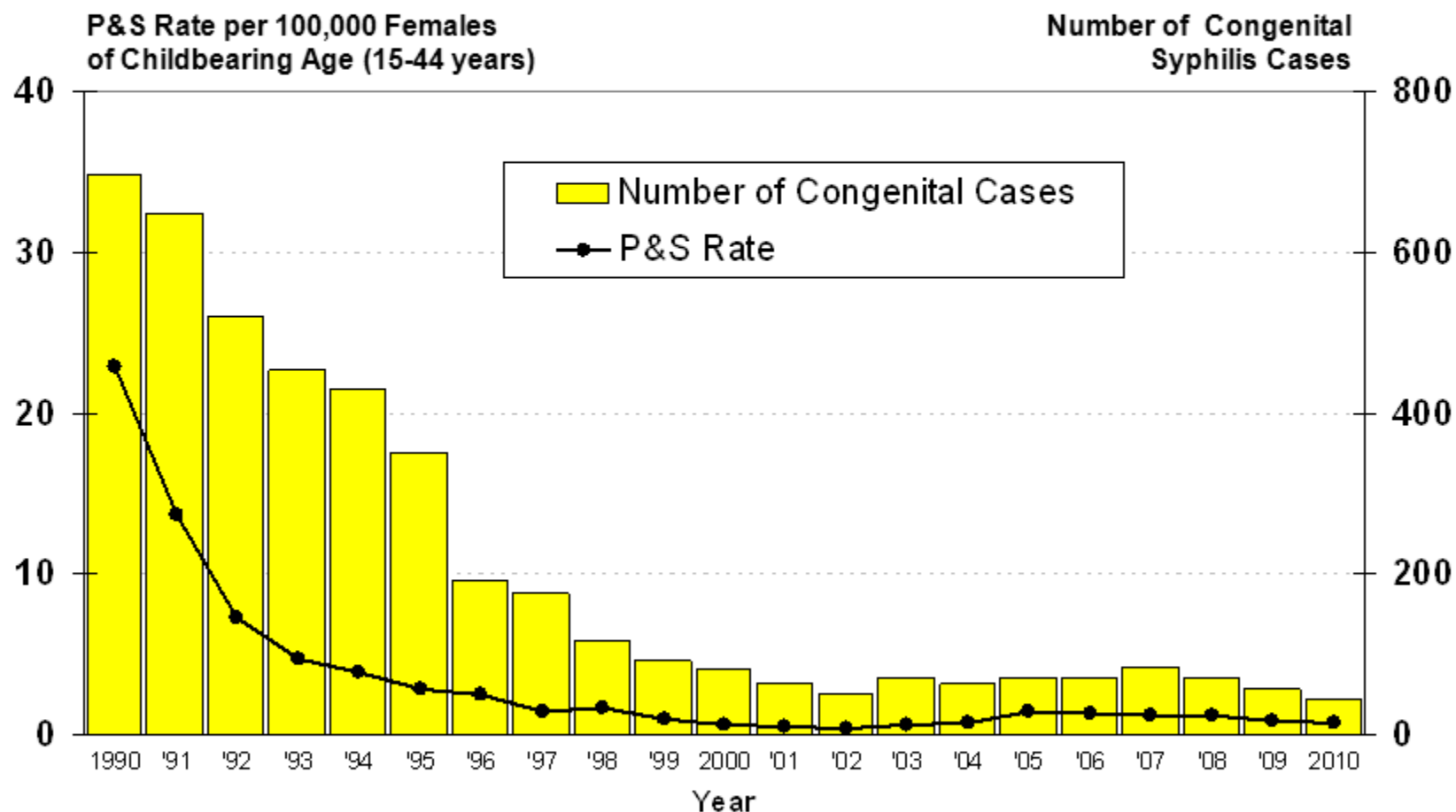
Note: Rates are based on very small numbers of cases.

## Congenital Syphilis in Infants < 1 Year of Age Rates by County, California, 2010

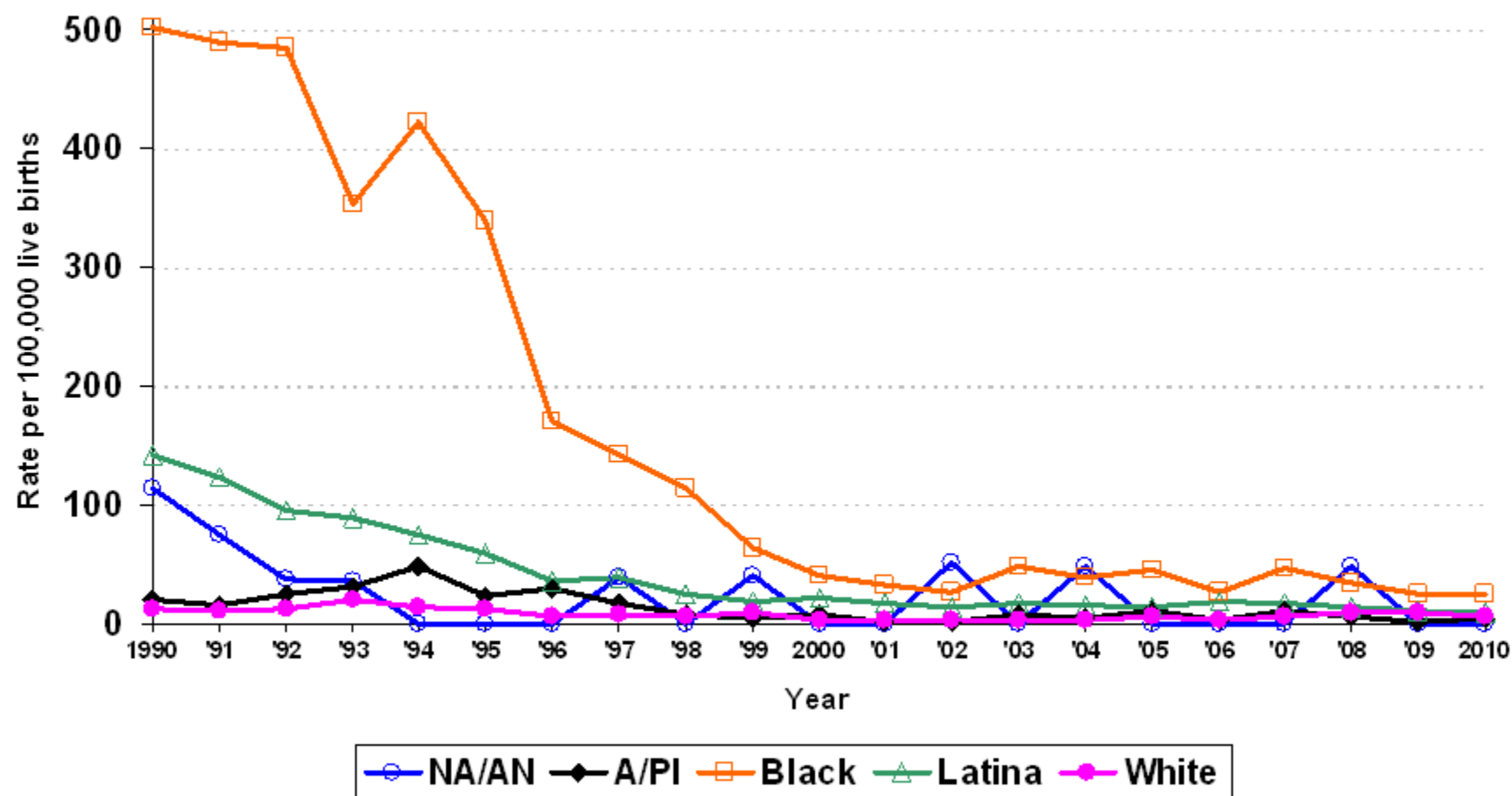


Note: Rates are based on very small numbers of cases.

## Congenital Syphilis Cases in Infants < 1 Year of Age versus Female Primary & Secondary Syphilis Rates, California, 1990–2010

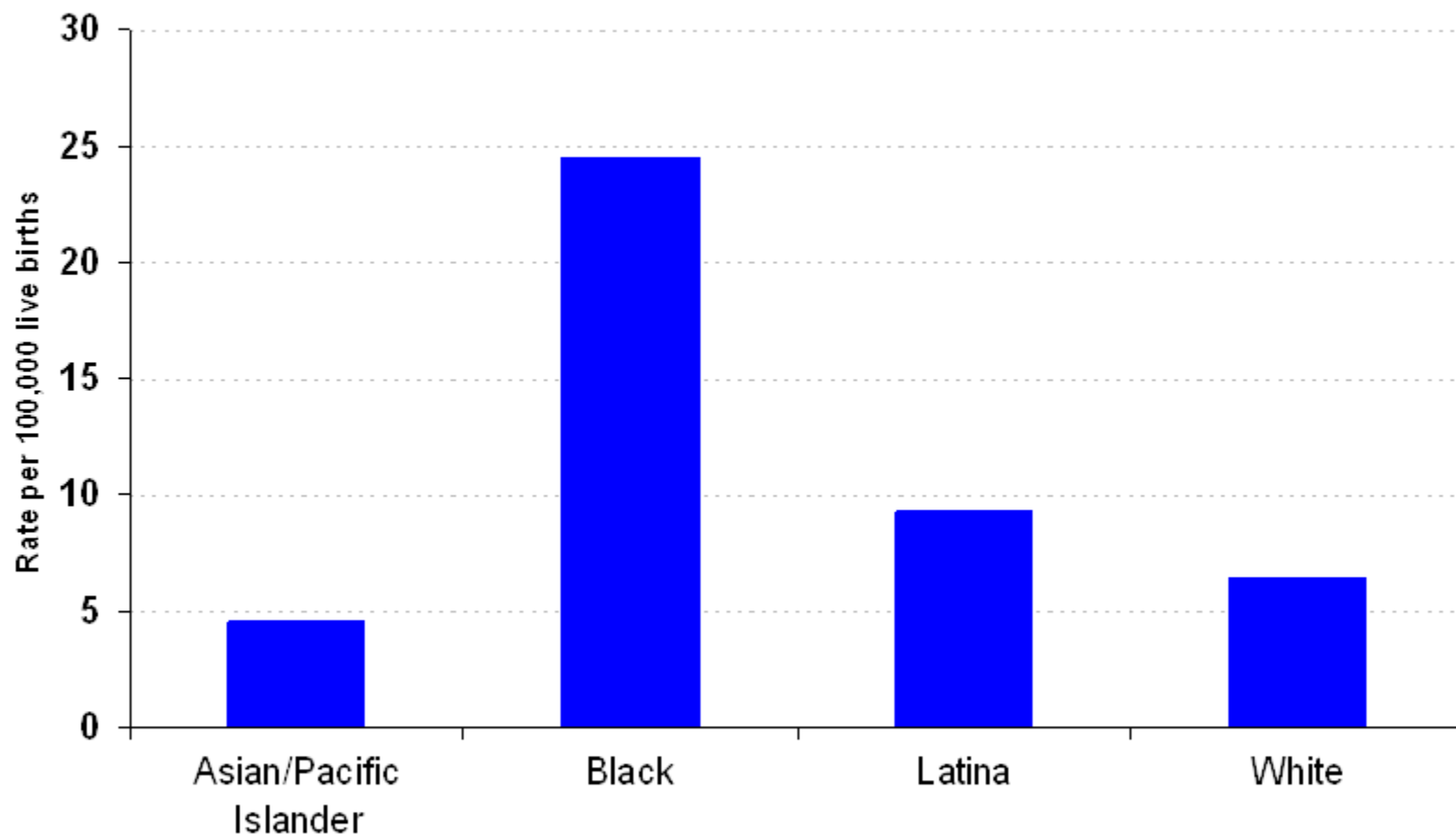


## Congenital Syphilis in Infants < 1 Year of Age Rates by Race/Ethnicity of Mother, California, 1990–2010



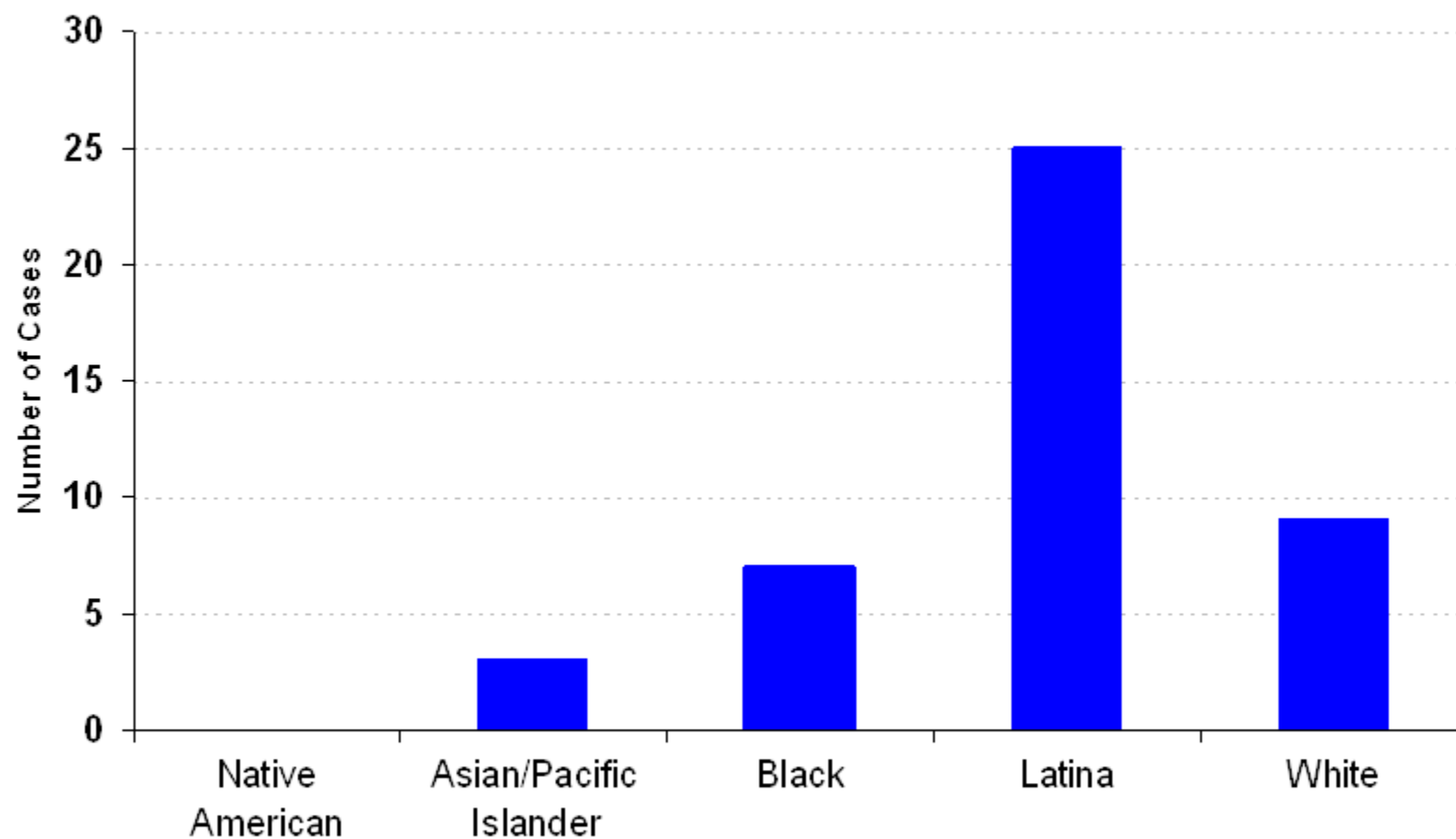
Note: NA/AN = Native American/Alaskan Native, A/PI = Asian/Pacific Islander.

## Congenital Syphilis in Infants < 1 Year of Age Rates by Race/Ethnicity of Mother, California, 2010



Note: Native American/Alaskan Native rates were excluded; no cases were reported in 2010.

## Congenital Syphilis in Infants < 1 Year of Age Number of Cases by Race/Ethnicity of Mother, California, 2010





## California County Map

# STD Morbidity California (2010) and United States (2009)

	California reported cases	US reported cases	US estimated incidence*	US estimated prevalence* (millions)
Chlamydia	155,300	1,244,180	2,800,000	1.9
Gonorrhea	26,840	301,174	675,000	NA
Syphilis (P&S)	2,059	13,997	21,000	NA
Congenital syphilis (< 1 yr)	44	427	NA	NA
HPV	NA	NA	6,200,000	20
HSV	NA	NA	1,600,000	45
Trichomoniasis	NA	NA	7,400,000	NA
AIDS	3,043 <sup>†</sup>	34,247	45,000	0.56
HIV	3,519 <sup>†</sup>	NA	56,300	1.1
Hepatitis B	229	4,033 <sup>†</sup>	60,000	0.75
<b>Total</b>	<b>191,034</b>	<b>1,598,058</b>	<b>18,857,300</b>	<b>69.3</b>

\* 2004 US estimates (2006 for HIV)

† 2008