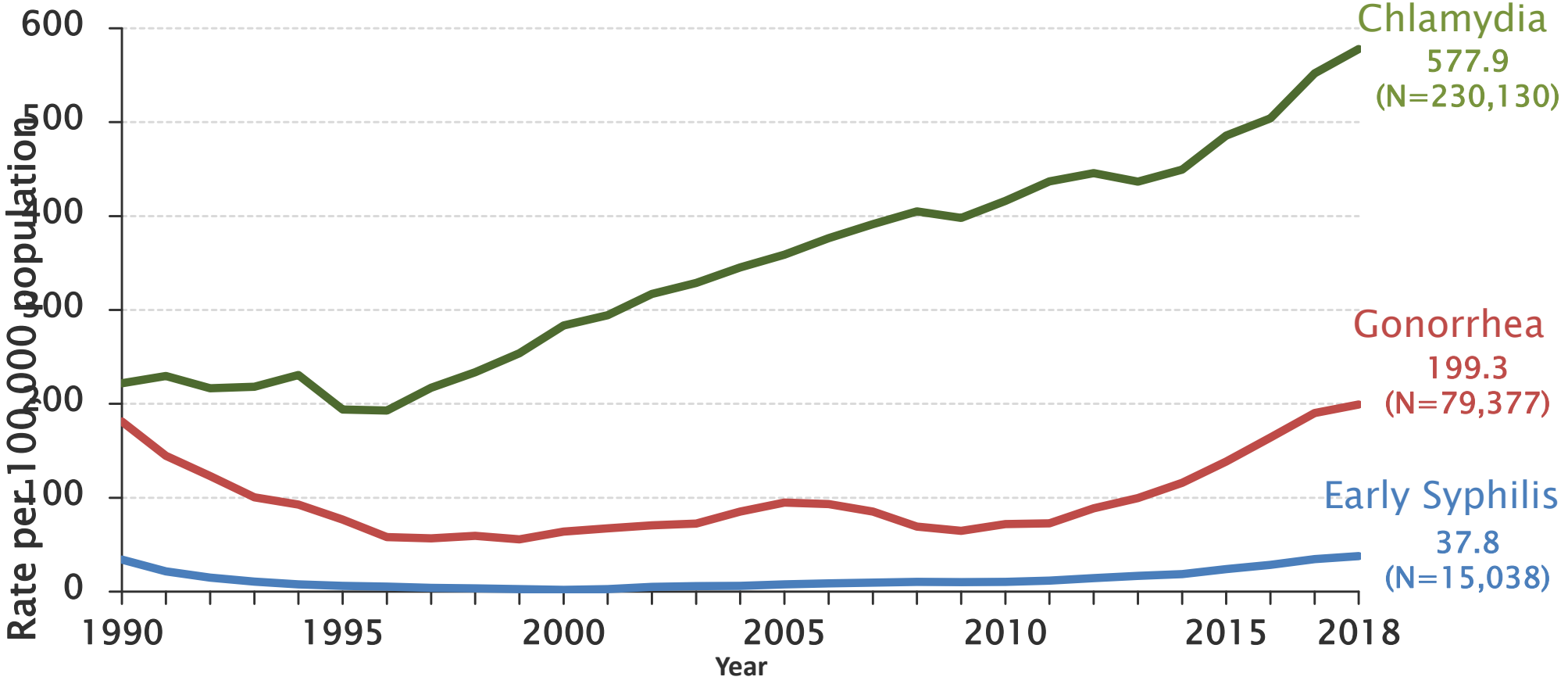
STDs in California: Increasing Morbidity, Priorities for Public Health Follow-up

CCLHO Meeting

California Department of PublicHealth

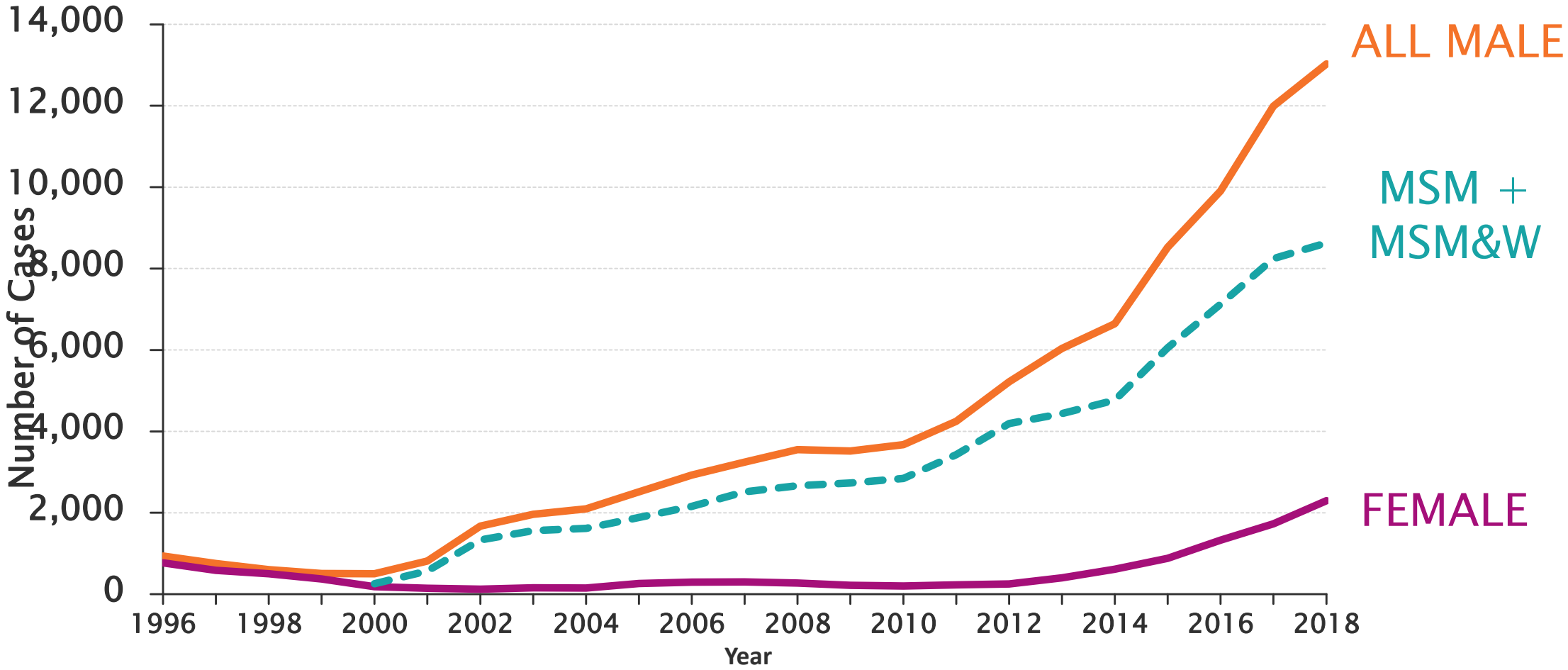
Chlamydia, Gonorrhea, and Early Syphilis* California Incidence Rates, 1990–2018



* Includes primary, secondary, and early latent syphilis.

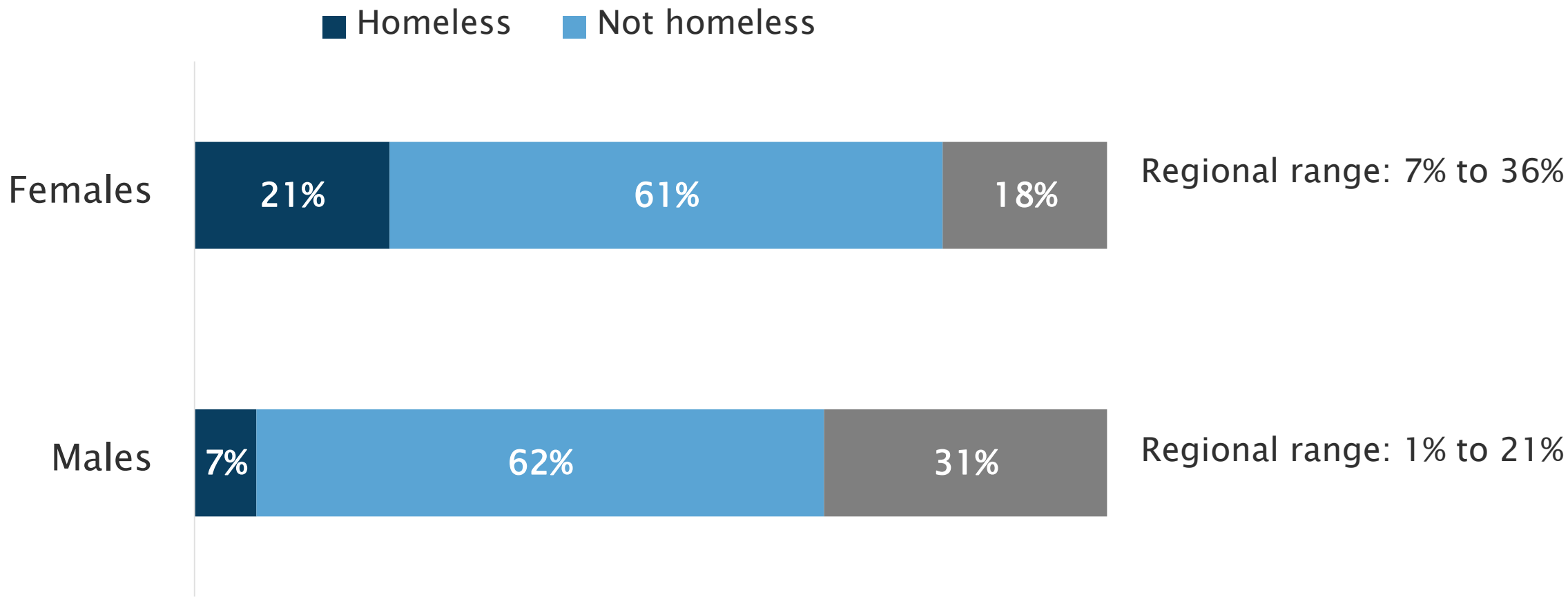
Data Source: Provisional STD surveillance data as of 3/6/19. Not for public distribution.

Early Syphilis Cases by Gender
California, 1996–2018



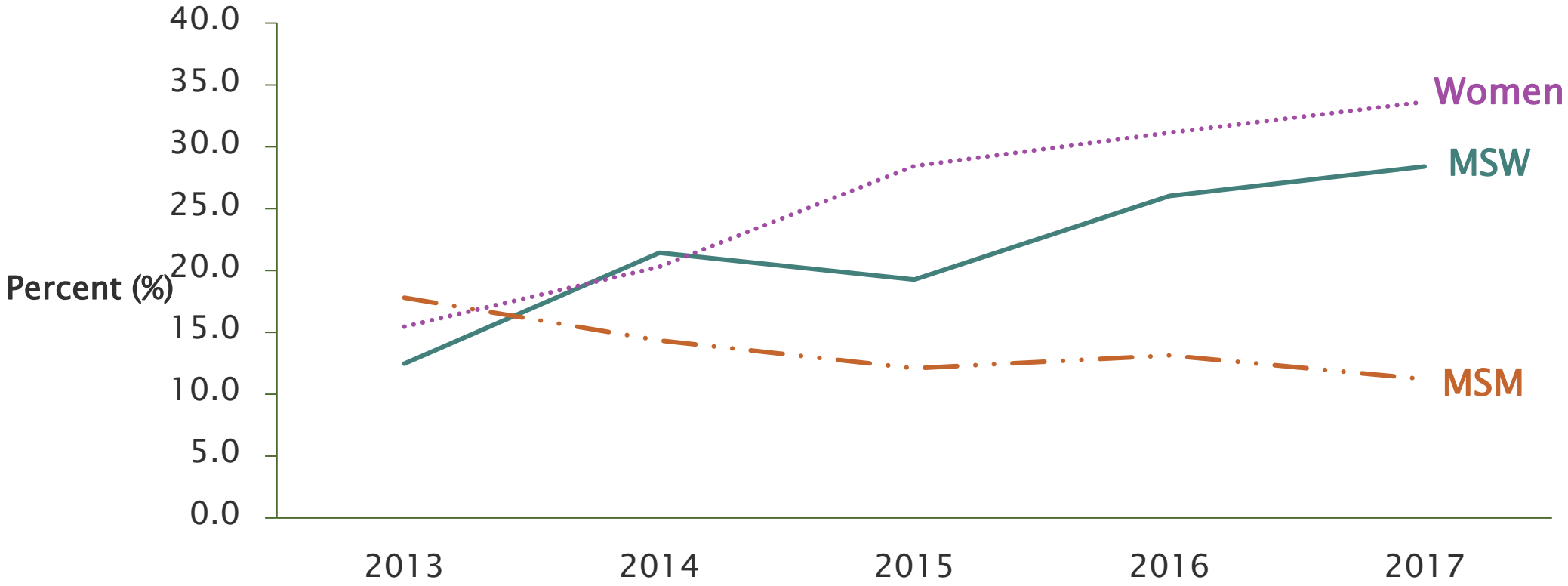
Data Source: Provisional STD surveillance data as of 4/9/19. Not for public distribution.

Homelessness/Unstable Housing Among Early Syphilis Cases, California Project Area, 2018



Data Source: Provisional STD surveillance data as of 4/9/19. Not for public distribution.

Reported Methamphetamine Use* Among Early Syphilis Cases by Sex and Sexual Behavior, California Project Area, 2013–2017



methamphetamine use in the 12 months prior to syphilis diagnosis (27% of cases had missing or unknown methamphetamine use and were excluded from the denominator).

Abbreviations: MSM = gay, bisexual, or other men who have sex with men; MSW = men who have sex with women only.

Considerations for Prioritization

Local public health resources must be prioritized to address areas of most significant need and impact.

- Severity of adverse health outcomes
- Potential for prevention
- Infectiousness, risk to the community
- Inequities, vulnerability of the people affected
- Opportunities for improving health
- Accurate tests and effective treatment
- Vaccine availability
- Evidence based interventions
- Medical and other costs to society
- Return on investment–favorable cost–benefit
- Stakeholder interest–political will, funding & community support
- Resources and capacity

Medical Providers are Critical Partners in STD Prevention

Role of Providers (Private, Public & Community Clinics)

- STD testing, treatment and partner management is essential for Chlamydia and Gonorrhea
  - ✓ Ensuring Screening and Treatment
  - ✓ Expedited Partner Therapy (e.g. Patient Delivered Partner Therapy), an evidence-based intervention for chlamydia
  - ✓ Timely and Complete Reporting to local Public Health

Where Public Health Programs Pick Up the Charge

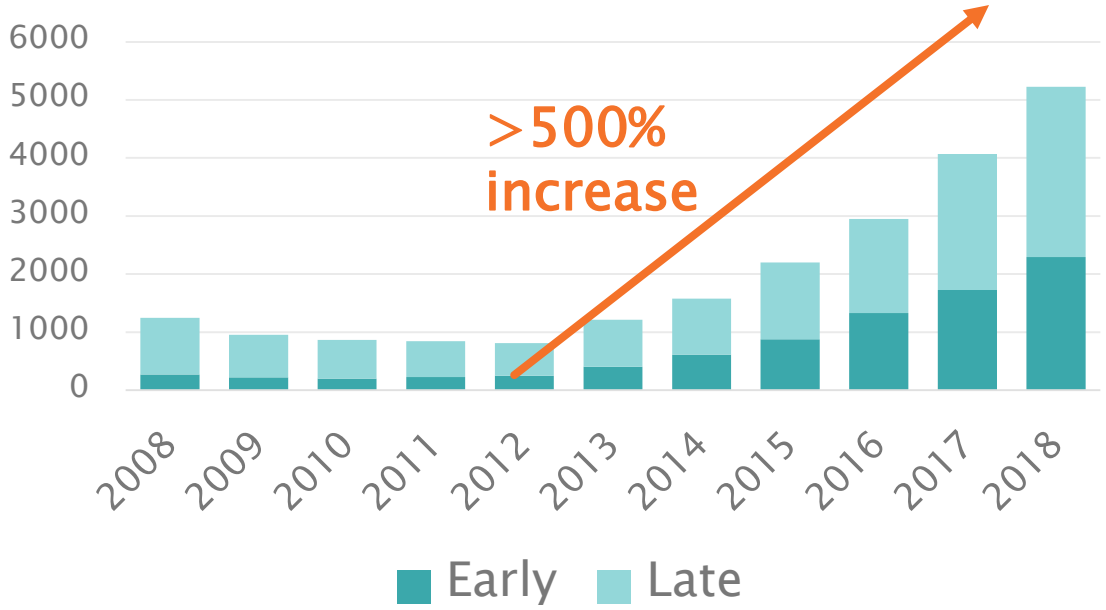
- Ensuring linkage to care is essential for priority diseases such as Syphilis & HIV
  - ✓ Monitoring treatment outcomes and re-engage in care
  - ✓ Public health investigation and “interview for sexual social network partners” or “contract tracing” is an essential prevention strategy

Congenital Syphilis Prevention

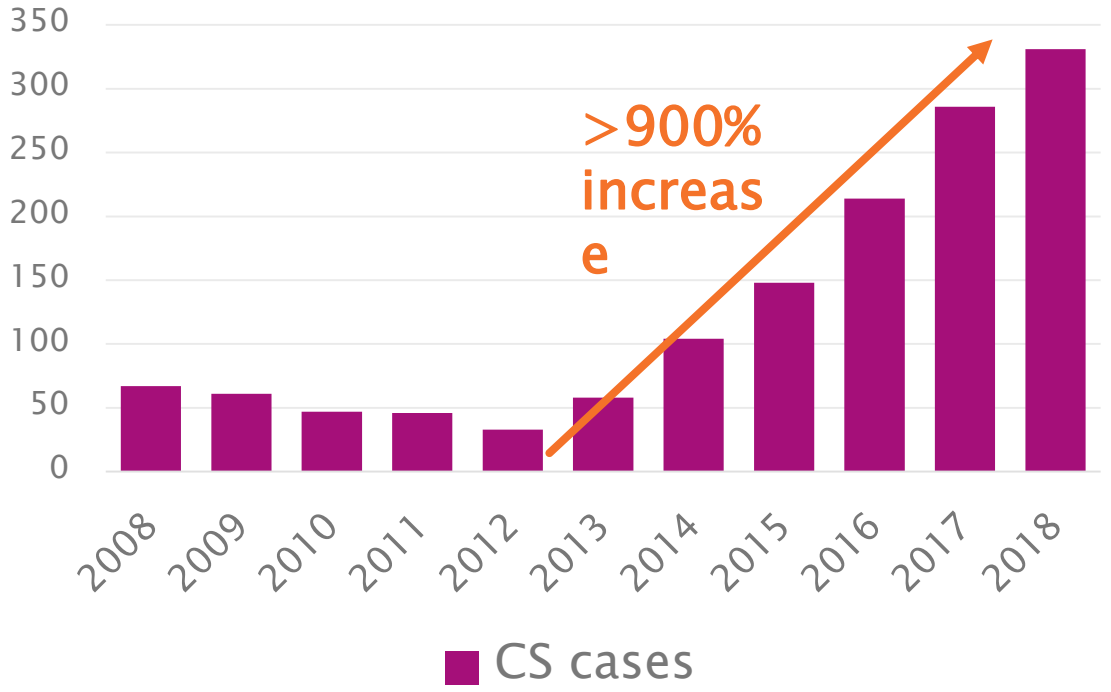
Prevention of CS cases is an urgent public health priority!

increasing in California since 2012.

Female syphilis cases (all stages)

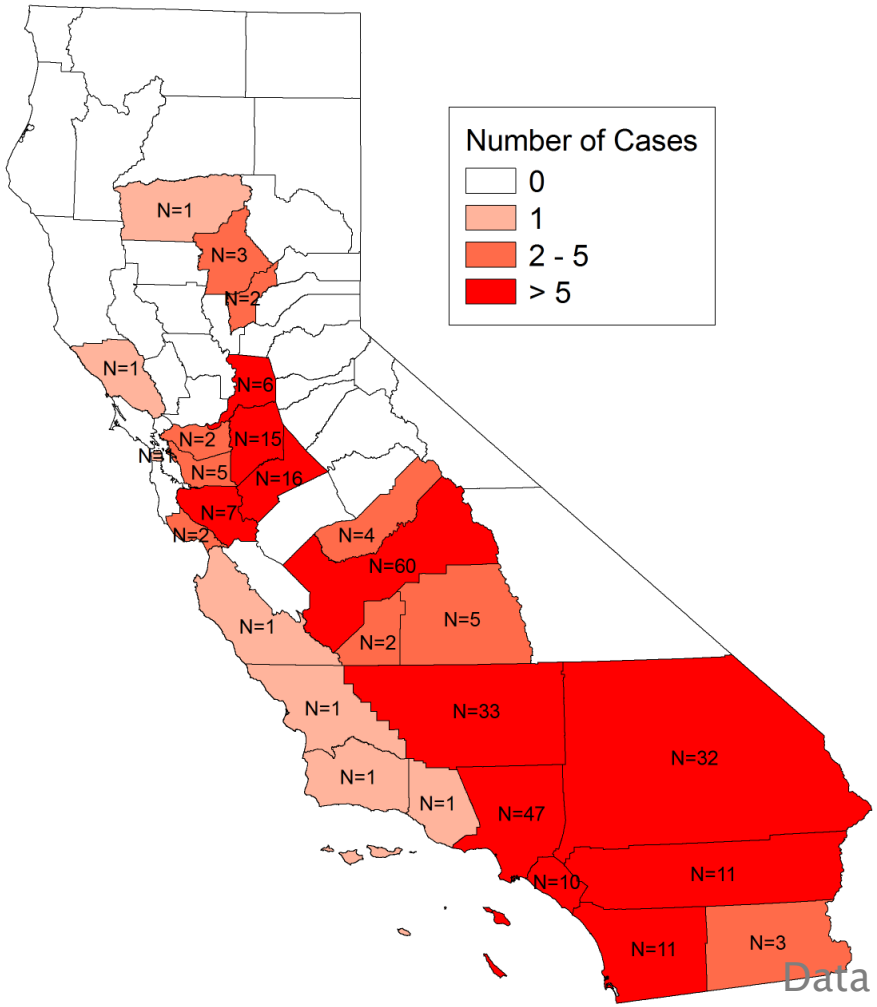


Congenital syphilis cases



Data Source: Provisional STD surveillance data as of 4/9/19. Not for public distribution.

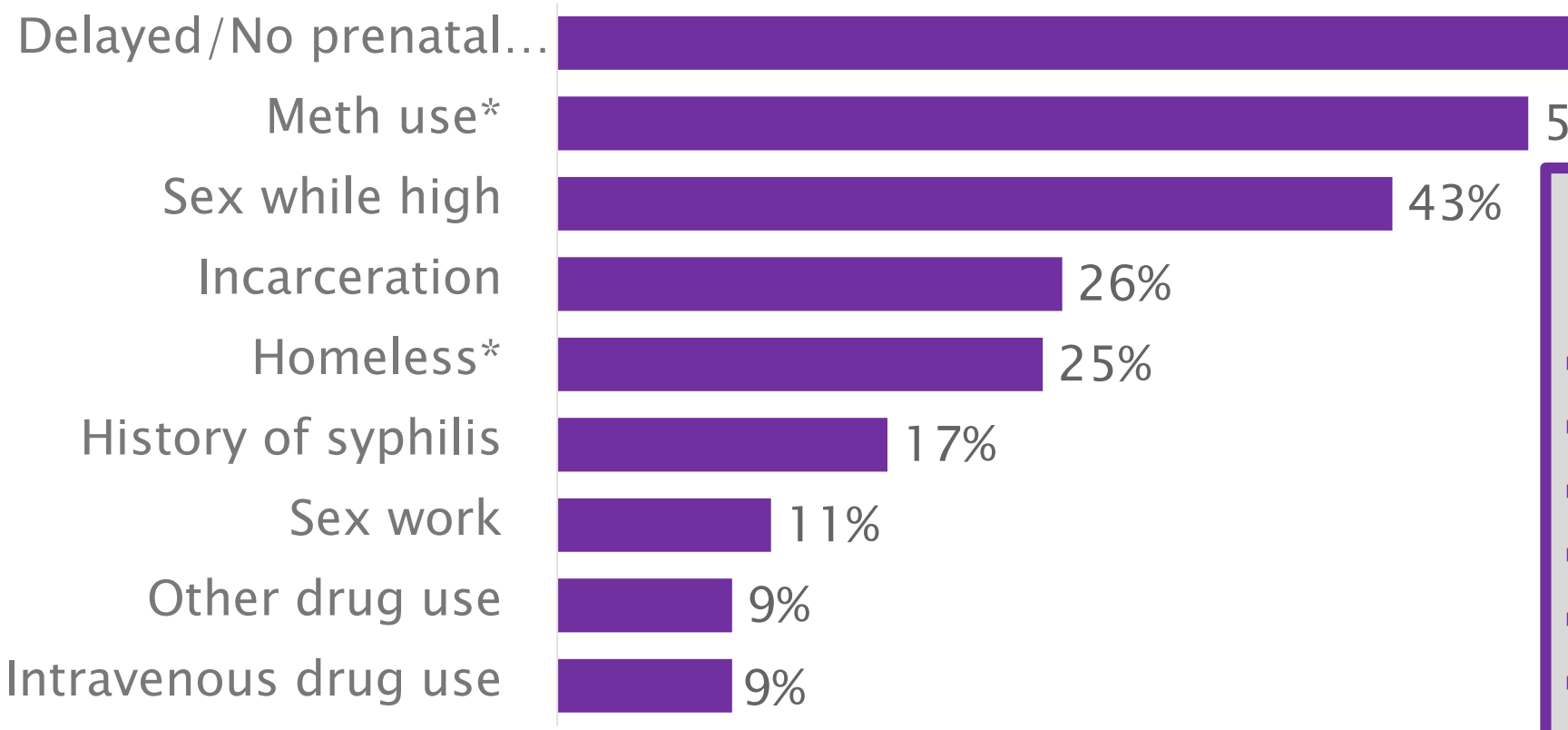
The highest morbidity counties are in the **Central** and **Southern** regions of the state.



In 2017, 9 (out of 58) counties in California reported ≥10 congenital syphilis cases.

Data Source: 2017 STD surveillance data. Not for public distribution.

Maternal Risk Factors Reported by Mothers of Congenital Syphilis infants, California Project Area, 2018

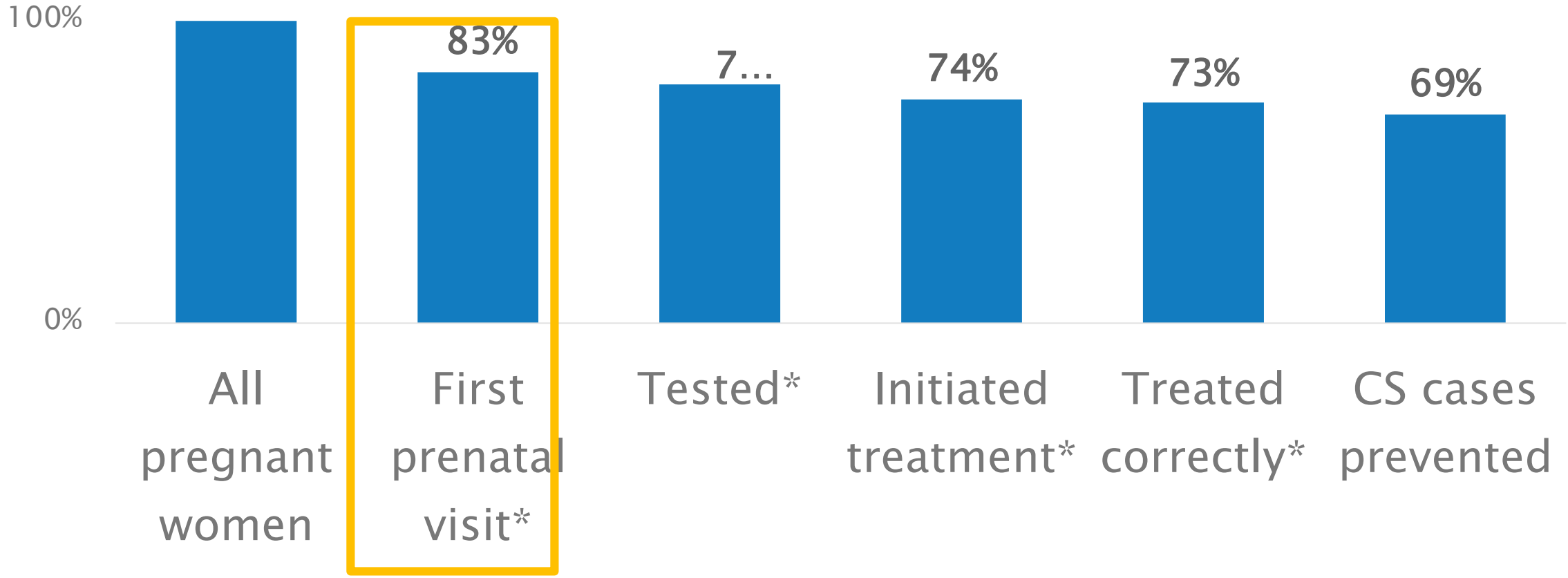


Social Determinants of Health

- Poverty
- Lack of access to care
- Limited transportation
- Housing instability
- Sex trafficking
- Domestic violence
- Addiction
- Fear of CPS involvement

nal STD surveillance data as of 4/9/19 (n=276 first bar, n=148 all subsequent non-starred bars); *Data from CS Quality Assurance

Congenital Syphilis Prevention Cascade Metrics California Project Area, 2018



* ≥30 days prior to

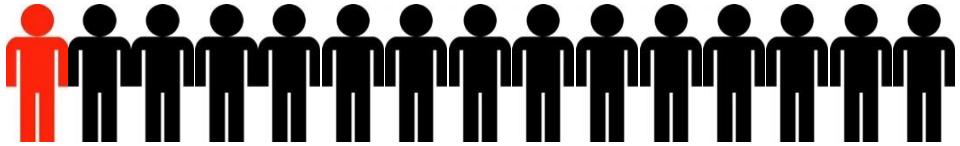
California Project Area (CPA) includes all California counties except Los Angeles and San Francisco. N=792.

HIV Prevention

Syphilis as a pathway for HIV prevention… an essential strategy in Getting to Zero for HIV!

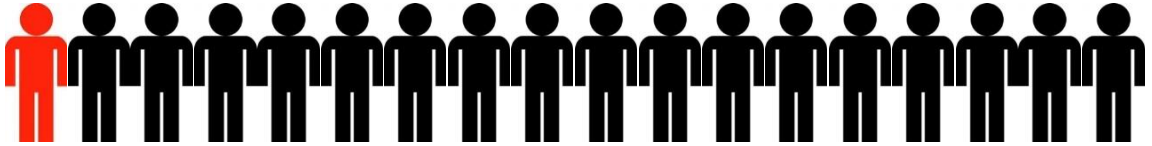
STDs increase the risk of HIV among men who have sex with men (MSM).

Rectal GC or CT



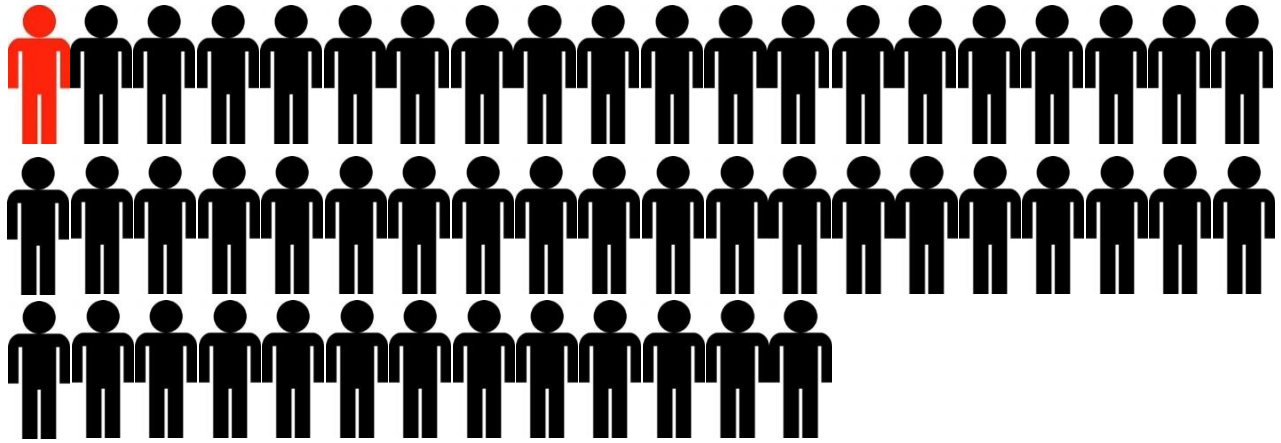
1 in 15 MSM were diagnosed with HIV within 1 year.*

Primary or Secondary Syphilis



1 in 18 MSM were diagnosed with HIV within 1 year.**

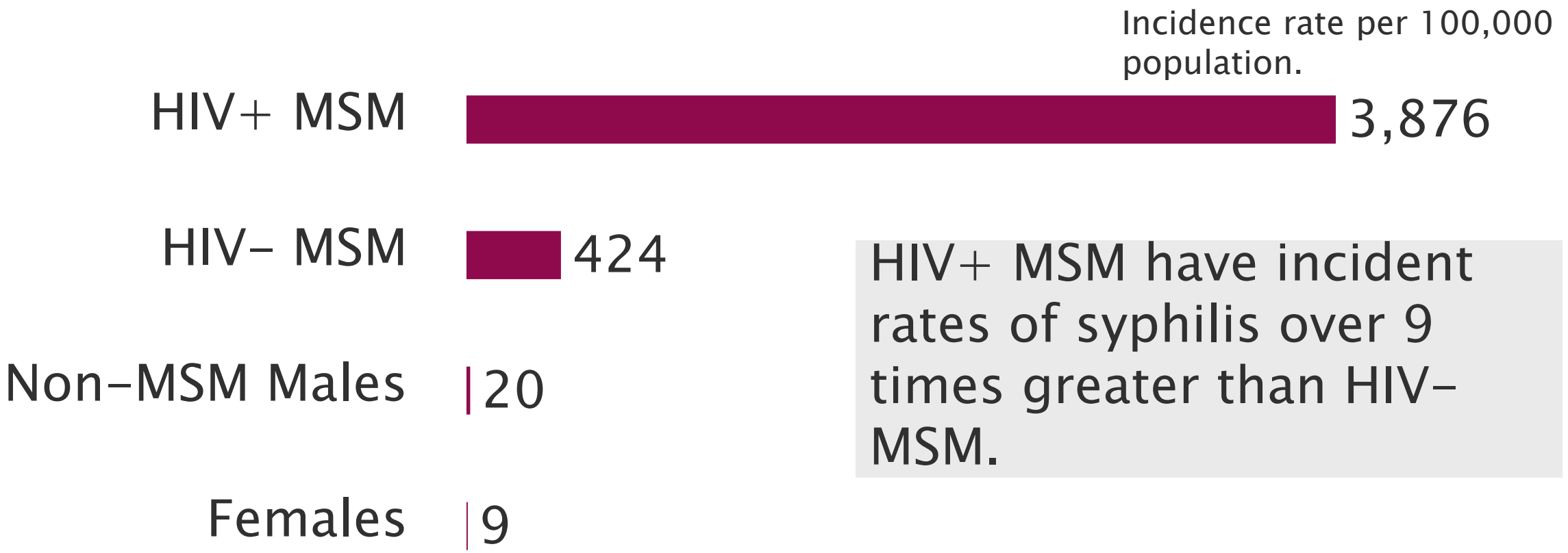
No rectal STD or syphilis infection



1 in 53 MSM were diagnosed with HIV within 1 year.*

**STD Clinic Patients, New York City. Pathela, CID 2013:57; **Matched STD/HIV Surveillance Data, New York City. Pathela, CID 2015:61*

Early Syphilis Incidence Rates by Sex, Gender of Sex Partner, and HIV Status, California, 2017

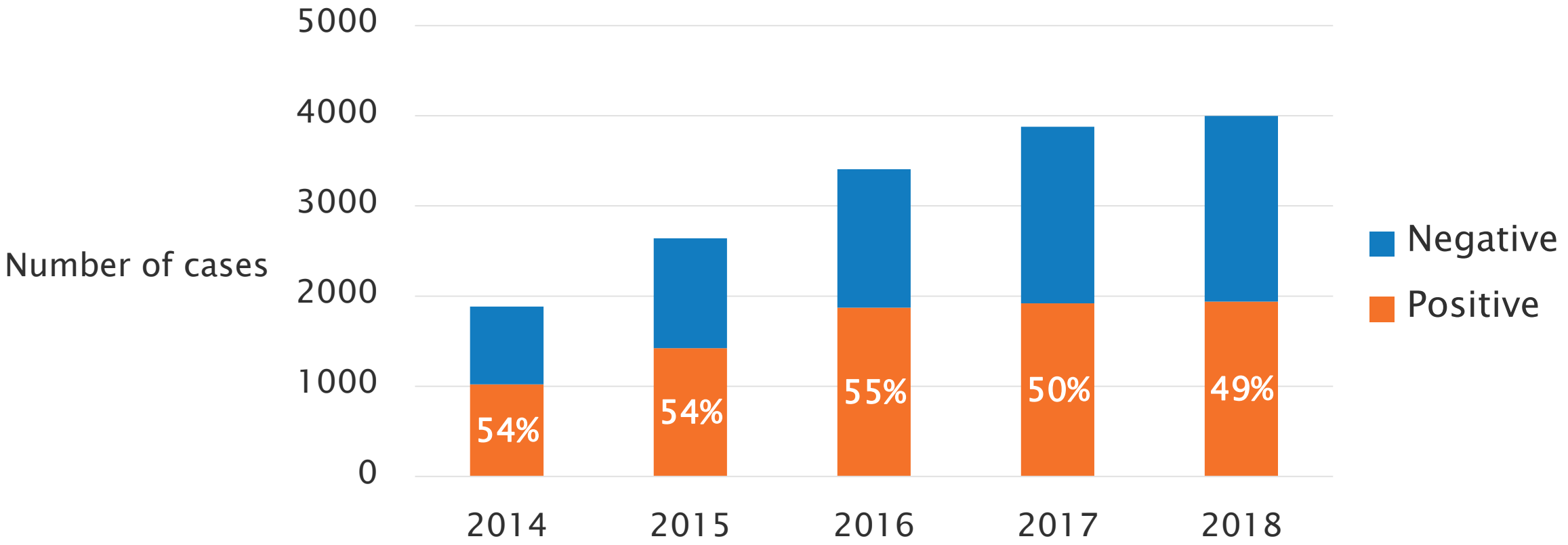


HIV+ MSM have incident rates of syphilis over 9 times greater than HIV- MSM.

Provisional data; Not for public distribution.

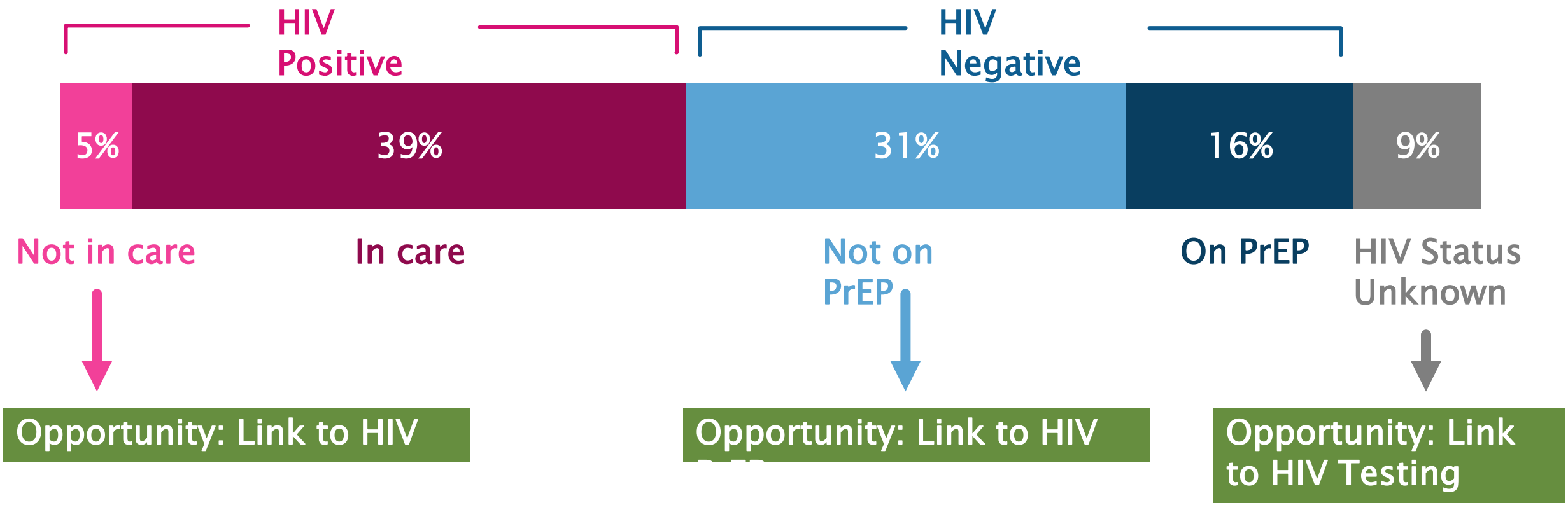
TD Control Branch 2017 Annual Report; American Community Survey 2016; Office of AIDS California HIV Surveillance Report 2017.

HIV Status of Early Syphilis Cases Among MSM, California Project Area, 2014–2018



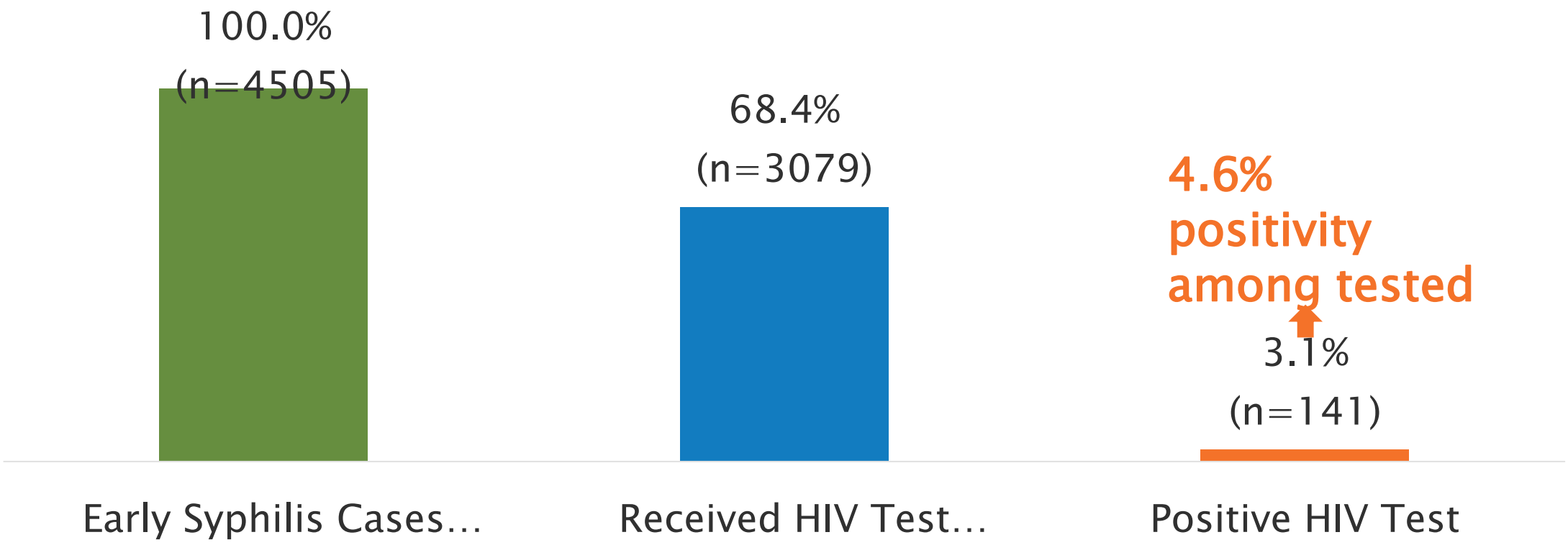
Note: Does not include HIV status unknown or refused to state: 2,195 or 12% of cases in 2014–2018.
Data Source: Provisional STD surveillance data as of 4/9/19. Not for public distribution.

HIV Prevention and Care Opportunities among 4,383 MSM Early Syphilis Cases, California Project Area, 2018



Data Source: Provisional STD surveillance data as of 4/9/19. Not for public distribution.

HIV Testing Among Early Syphilis Cases At-Risk for HIV*, 2015-2018



*All early syphilis cases reported in 3 counties integrating their STD and HIV programs' follow-up.
s cases that are not known to be HIV-positive and have not received an HIV test within the 30 days prior to syphilis diagnosis date.
Data Source: Provisional STD surveillance data as of 4/9/19. Not for public distribution.

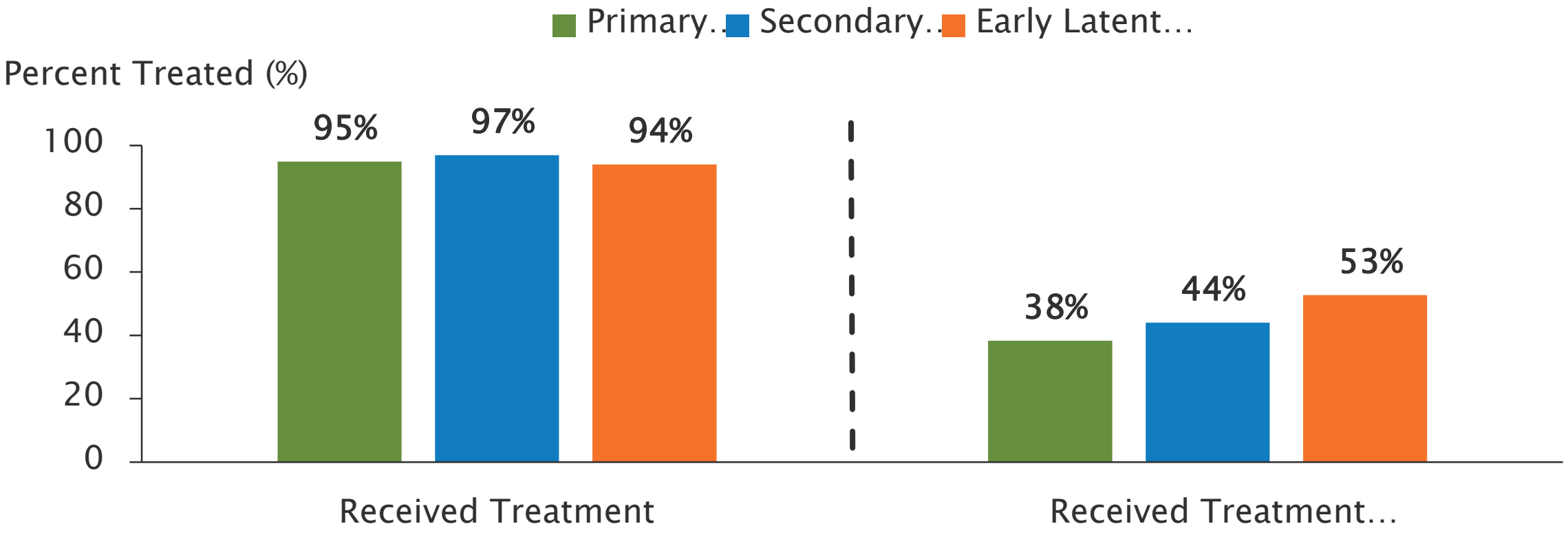
Priorities for Public Health Investigation

What do we recommend and where do we stand..

Highest Priority Cases for Public Health Investigation

Public Health Strategy	Congenital Syphilis Prevention	HIV Prevention
Linkage to Care	• Pregnant women & women of child bearing age with newly identified syphilis infection • Male partners of female syphilis cases	• Persons with newly identified HIV • Persons "out of care"---not virally suppressed
Monitoring of treatment outcomes & laboratory data to initiate re-engagement in care	• Public health follow-up of females to ensure treatment completion (particularly with late syphilis) • Monitoring of syphilis titers of post treatment to ensure appropriate titer response & identify potential reinfection	• Monitoring of HIV care & laboratory data to initiate public health follow-up for re-engagement in care • Monitoring of HIV laboratory data to identify increases in viral load
Client interview & partner elicitation	• Pregnant women & women of child bearing age with newly identified syphilis infection • Male partners of female syphilis cases & other men who have sex with women	• Persons with newly identified HIV • Persons "out of care" not virally suppressed
Partner Testing & Treatment	• Notification of exposure, testing and treatment for sexual/needle sharing partners	• Notification of exposure, testing and treatment for sexual/needle sharing partners
Prophylaxis	• Preventative syphilis treatment for exposed partners who test negative	• PrEP for exposed partners who test negative and other at-risk individuals
Referral/Linkage to support and services	• Facilitate referral to housing, mental health, substance use treatment, etc.	• Facilitate referral to housing, mental health, substance use treatment, etc.

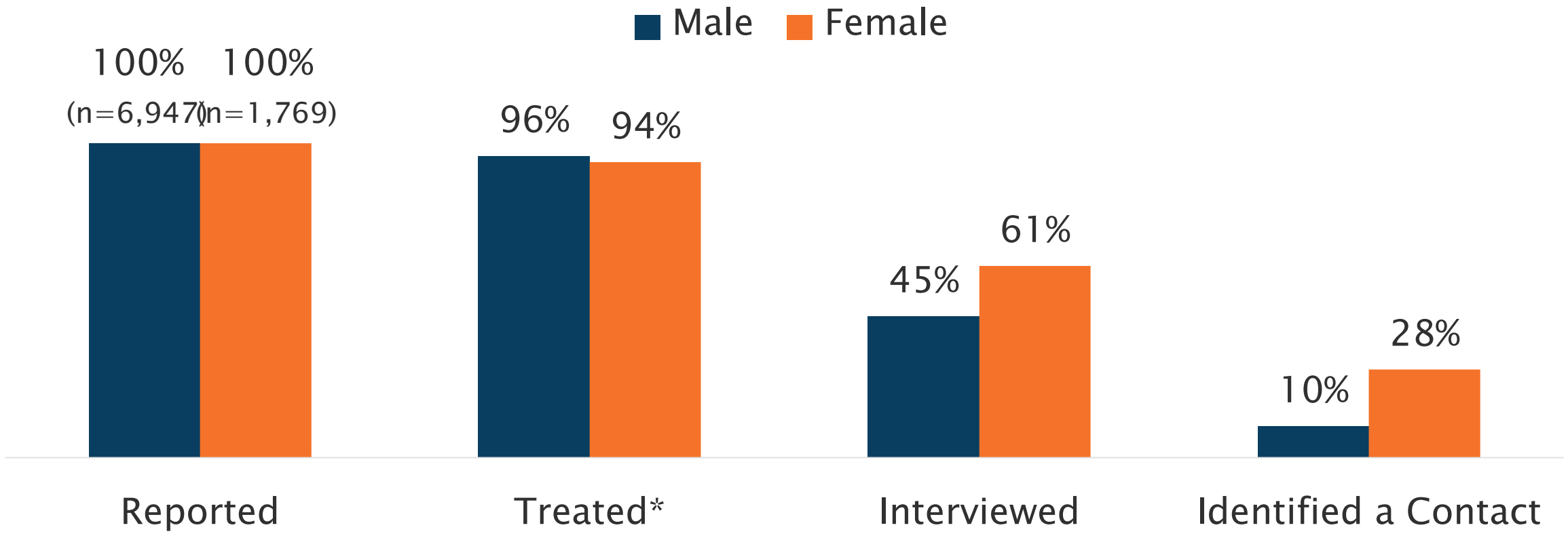
Stage
California Project Area, 2018



Data Source: Provisional STD surveillance data as of 4/9/19. Not for public distribution.

Early Syphilis Case Continuum:

Index Client Treatment and Partner Elicitation
California Project Area, 2018



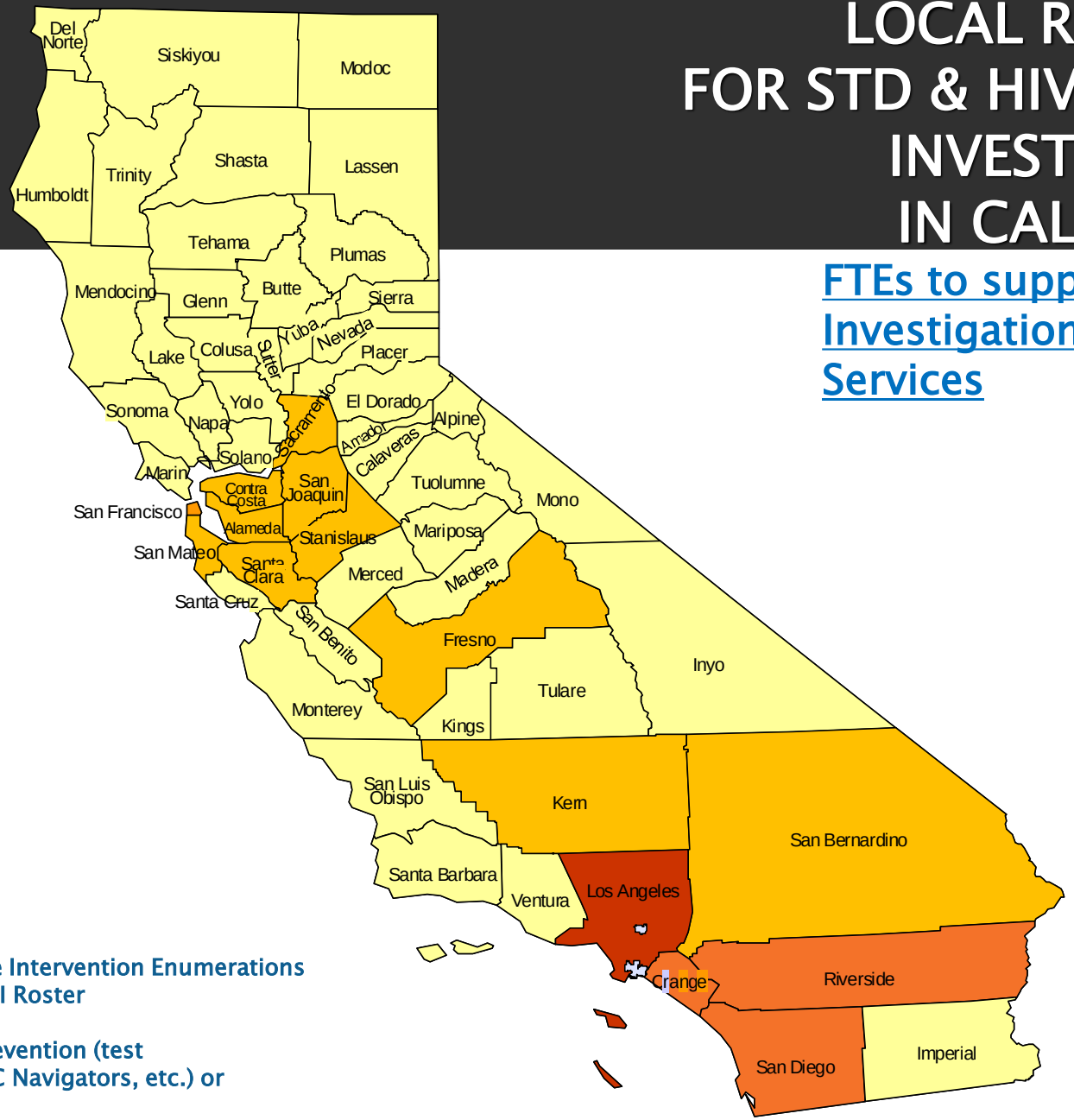
*Reported cases with treatment occurring during the 30 days prior to, on, or after the specimen collection date.

Data Source: Provisional STD surveillance data as of 4/9/19. Not for public distribution.

Local Health Jurisdiction Resources

Current Status and Future Opportunities

LOCAL RESOURCES FOR STD & HIV PUBLIC HEALTH INVESTIGATION IN CALIFORNIA



FTEs to support STD/HIV Disease Investigation and Surveillance Based Partner Services

- 1 or Less*
- 2 to 4**
- 5 to 9**
- 10 plus

*The majority of these local health jurisdictions employ public health nurses or CDIs for whom STD & HIV are only part (5% – 30%) of their overall CD workload

**Many of these LHJs are understaffed given workload; supervisors/managers, where they exist, are also conducting investigations and client interviews

Source(s): California 2017 Disease Intervention Enumerations Survey; Updates through STDCB DI Roster

This data does not include HIV Prevention (test counselors/outreach workers, LTC Navigators, etc.) or Surveillance staff

Local Disease Intervention Infrastructure Insufficient to Support Dual Epidemic…resulting in missed opportunities to prevent CS and HIV!

- High volume workload for investigators (DIS & PHN)– 50 to 90 simultaneous investigations
  - DI managers across the country suggest more reasonable workloads to support quality work and outcomes…30–40 investigations with 10–15 cases
- In an effort to prioritize there is de-prioritization of public health follow-up and interview by diagnosis (e.g. No more early latent) or gender (e.g. no more males)
- Local policies for "client contact attempts" may not equal previous standards for thorough investigation
  - Movement away from field visits to phone and mailed letters to improve efficiency & save time
  - Closing out case investigation at 30 days whether or not client is treated or interviewed
- Cursory efforts in sexual and social partner elicitation and investigation
  - Our numbers do not look good, but are we REALLY doing the "Partner Services

What can be done…

- Potential for Increased STD Funding in the Governors Budget
  - STDCB currently hosting the California CSHCA STD Advisory Group to discuss program priorities and funding formulas
    - Webinars in April & May
- Current STDCB Local Assistance Funding (Fiscal Year 2019/2020)
  - Formula prioritizes congenital syphilis and HIV prevention work through weighted morbidity
  - Funded jurisdictions comprise 92% of Chlamydia and Gonorrhea, 95% of early syphilis, 97% of congenital syphilis cases in California (excluding San Francisco and Los Angeles)

What can be done…

- Local Assistance Funding Formula (Fiscal Year 2019/2020)
  - Formula inputs
    - **POPULATION-BASED***
      - 10%: mean population estimates for ages 12-30
      - 10%: mean population estimates for African American and Latino individuals
    - **MORBIDITY-BASED****
      - 80%: weighted mean case counts
        - All gonorrhea = 1
        - Infectious syphilis among males = 25
        - All syphilis cases among non-pregnant females age 15-44 = 50
        - All syphilis cases among pregnant females = 100

*Based on Department of Finance data 2015-2017. **Based on surveillance data 2015-2017.

What can be done…

- CDPH OA HIV Prevention funding (18-1802) allows integrated syphilis and HIV efforts to support HIV prevention
- Local efforts to garner data to inform proposals for funding and practice standards
  - Public Health Alliance of So Cal is conducting workload analysis to be used by LHJs to advocate for funding of DIS
    - Information from the STD program infrastructure survey will be used to support disease intervention workload analysis and better understand current STD funding and infrastructure
  - Potential for collaborative development of disease investigation standards for syphilis interview and partner services
- STDCB available for technical assistance and prioritization discussion