



ADDRESSING THE RISE OF SYPHILIS IN SAN DIEGO COUNTY

M. Winston Tilghman, M.D.

HHSA-PHS-HIV, STD, and Hepatitis Branch

Health Services Advisory Board Meeting, 7/20/17



SYPHILIS REVIEW



LIVE WELL
SAN DIEGO

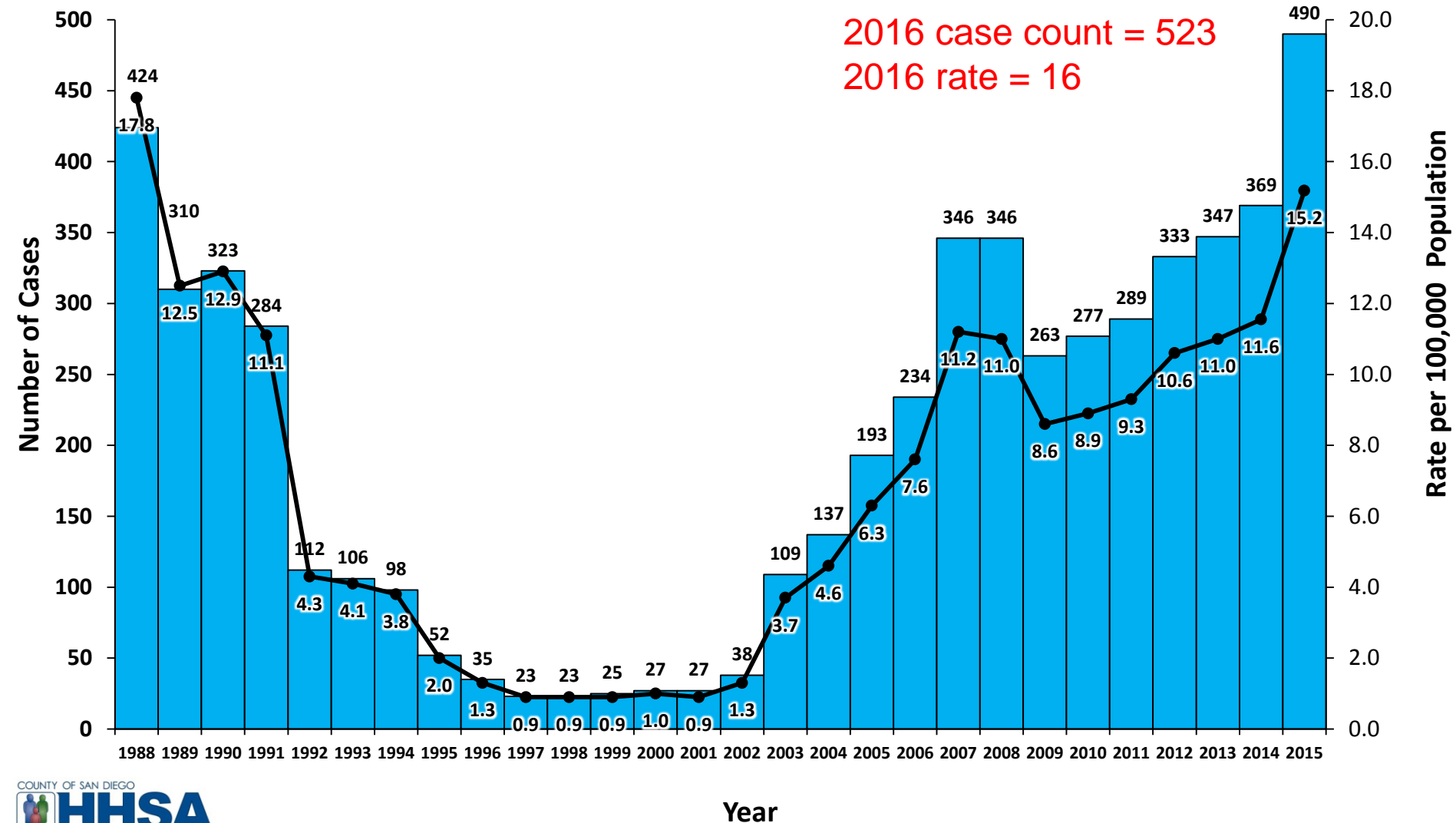
- Sexual transmission requires contact with lesions of primary or secondary syphilis:
 - May not be recognized in early latent syphilis.
 - Infections ≥ 1 year old are not considered infectious.
- *In utero* transmission from mother to fetus can occur at any stage of disease.
- Recommended syphilis treatment is long-acting benzathine penicillin G, dosed based on duration of infection.
 - Oral antibiotics, such as doxycycline, may be used for *non-pregnant* cases.
 - Only long-acting benzathine penicillin G has been shown to effectively prevent congenital syphilis:
 - Must be started at least 30 days before delivery.
 - Must be given strictly according to guidelines.

Primary & Secondary Syphilis Cases and Rates by Year San Diego County, 1988 - 2015

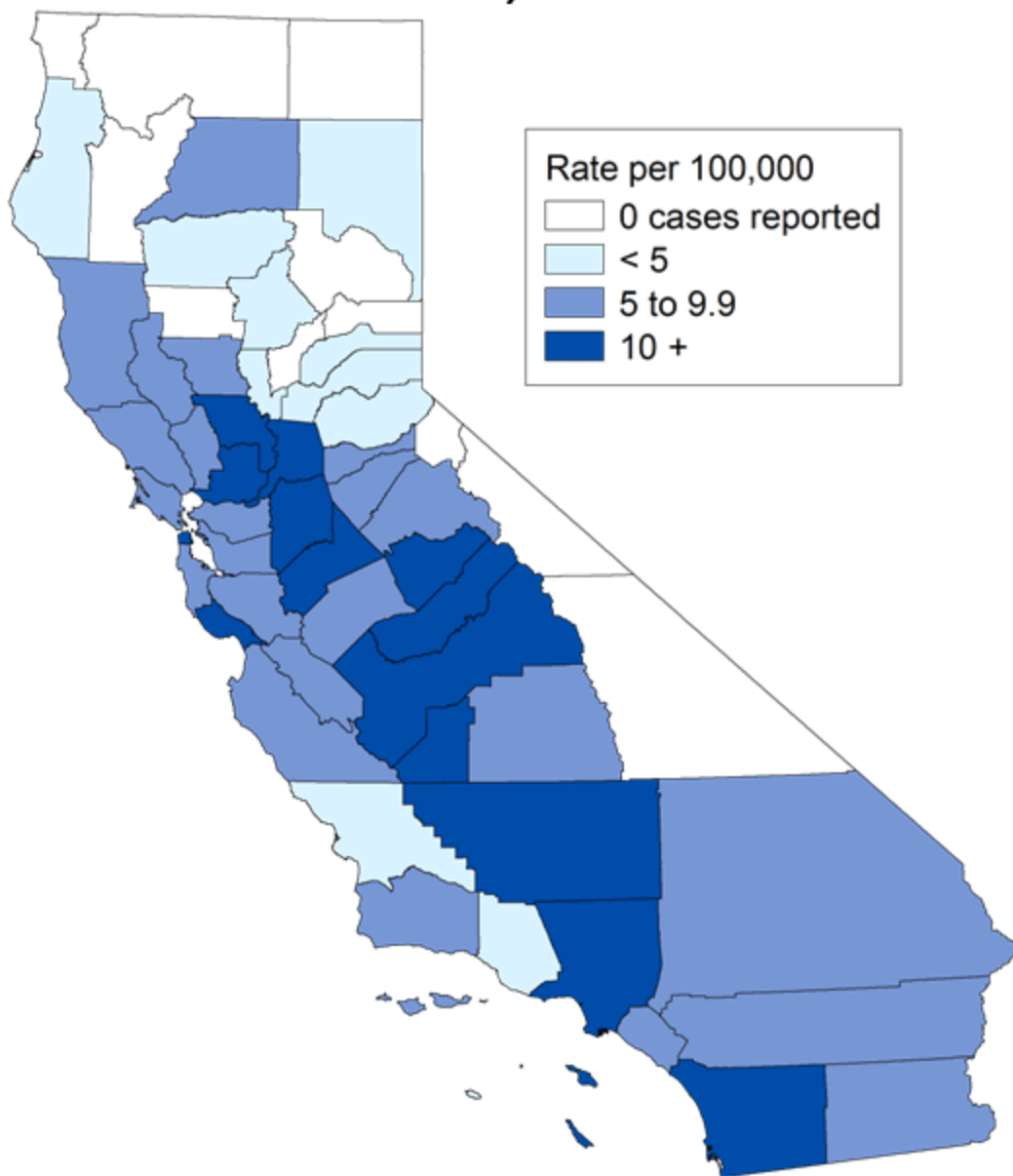


■ Cases ● Rate per 100,000 population

2016 case count = 523
2016 rate = 16

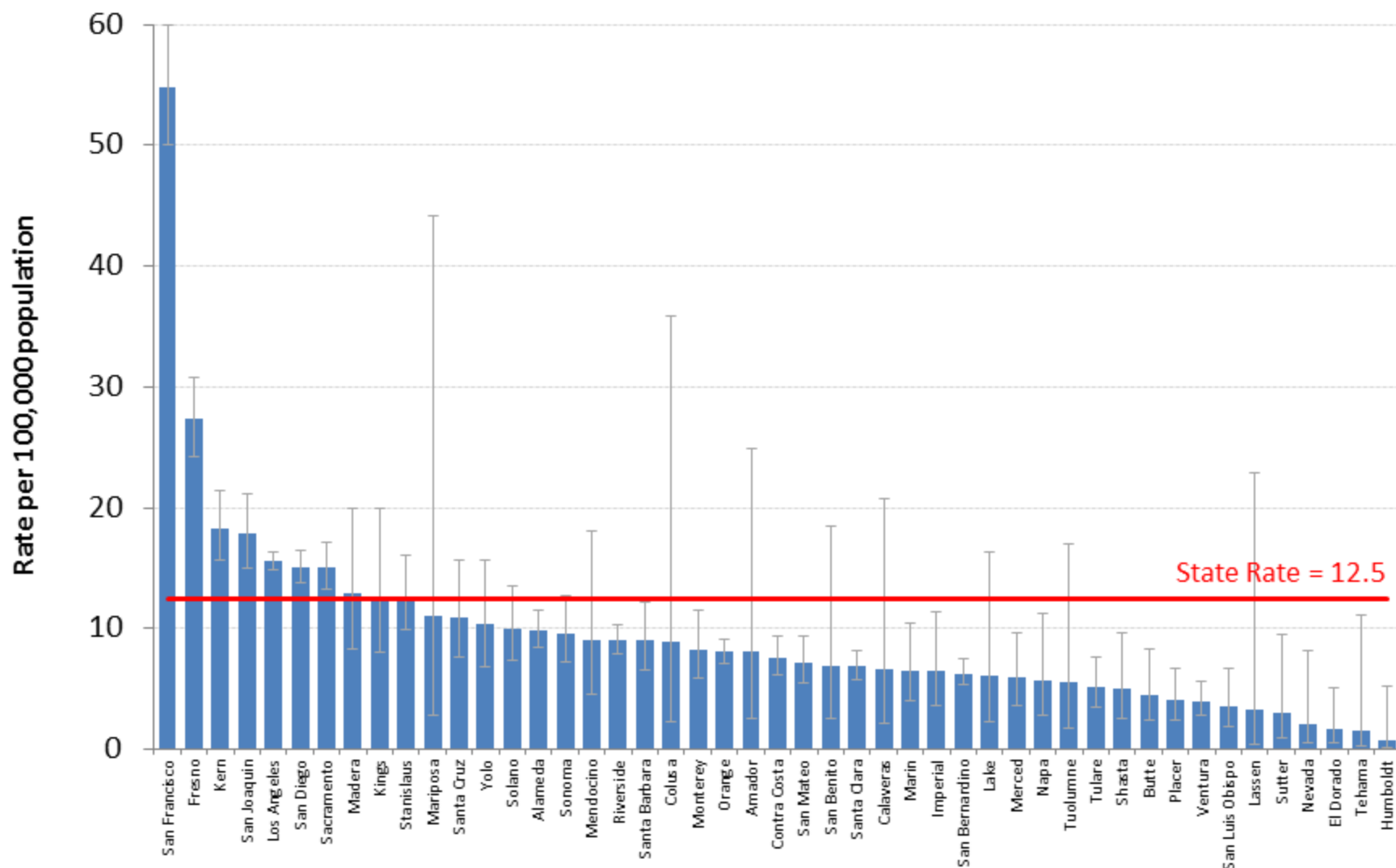


Primary & Secondary Syphilis, Incidence Rates by County California, 2015



Ranking of County Primary & Secondary Syphilis Rates California, 2015

(with 95% Confidence Intervals*)



* Confidence intervals were calculated using Poisson exact method; excludes counties with no cases or statistically unstable rates.

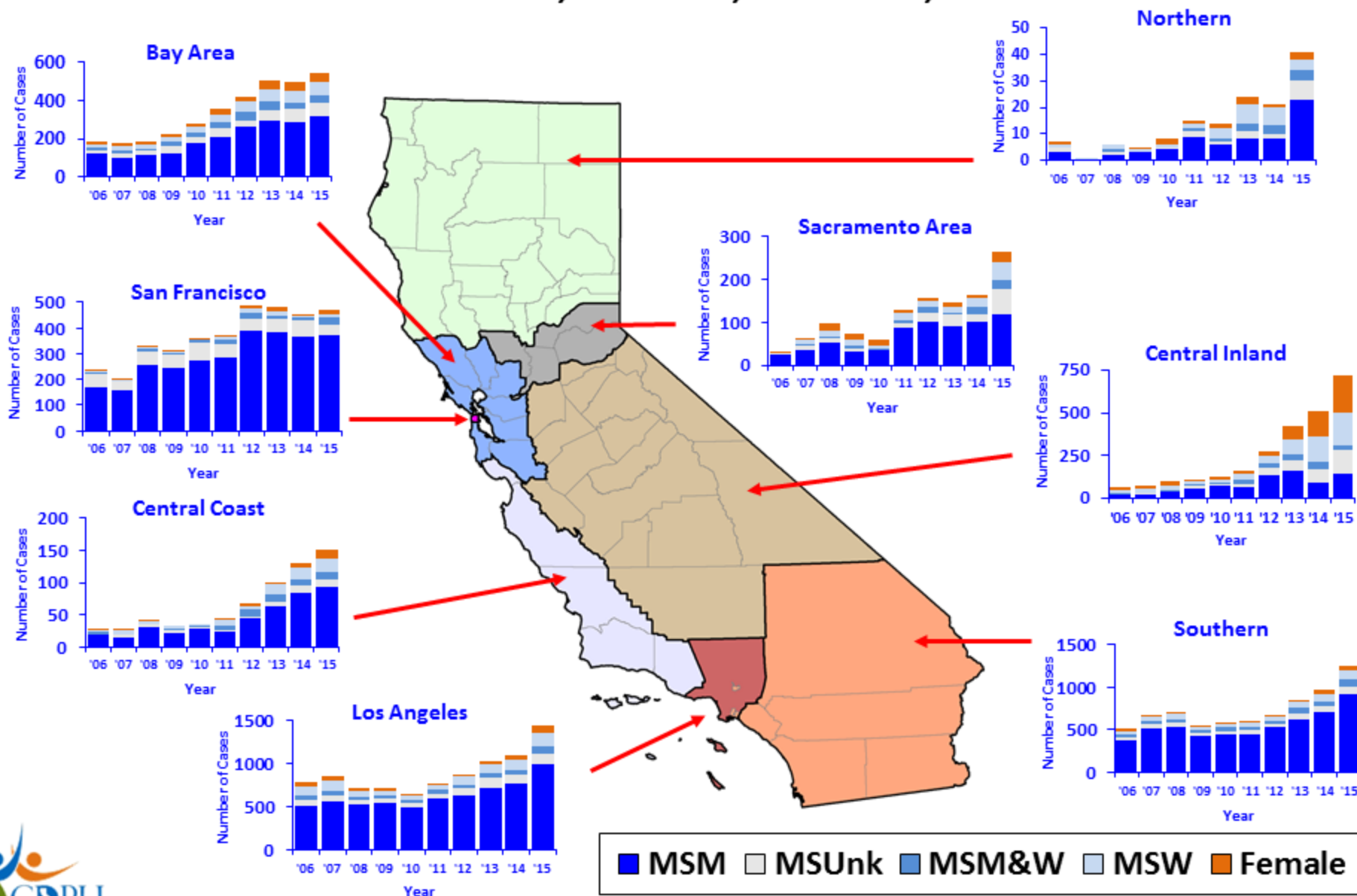
Note: Rates are per 100,000 population.

Source: California Department of Public Health, STD Control Branch

Rev. 7/2016

STD Control Branch

Number of Primary & Secondary Syphilis Cases by Region, Sexual Orientation, and Year, California, 2006–2015

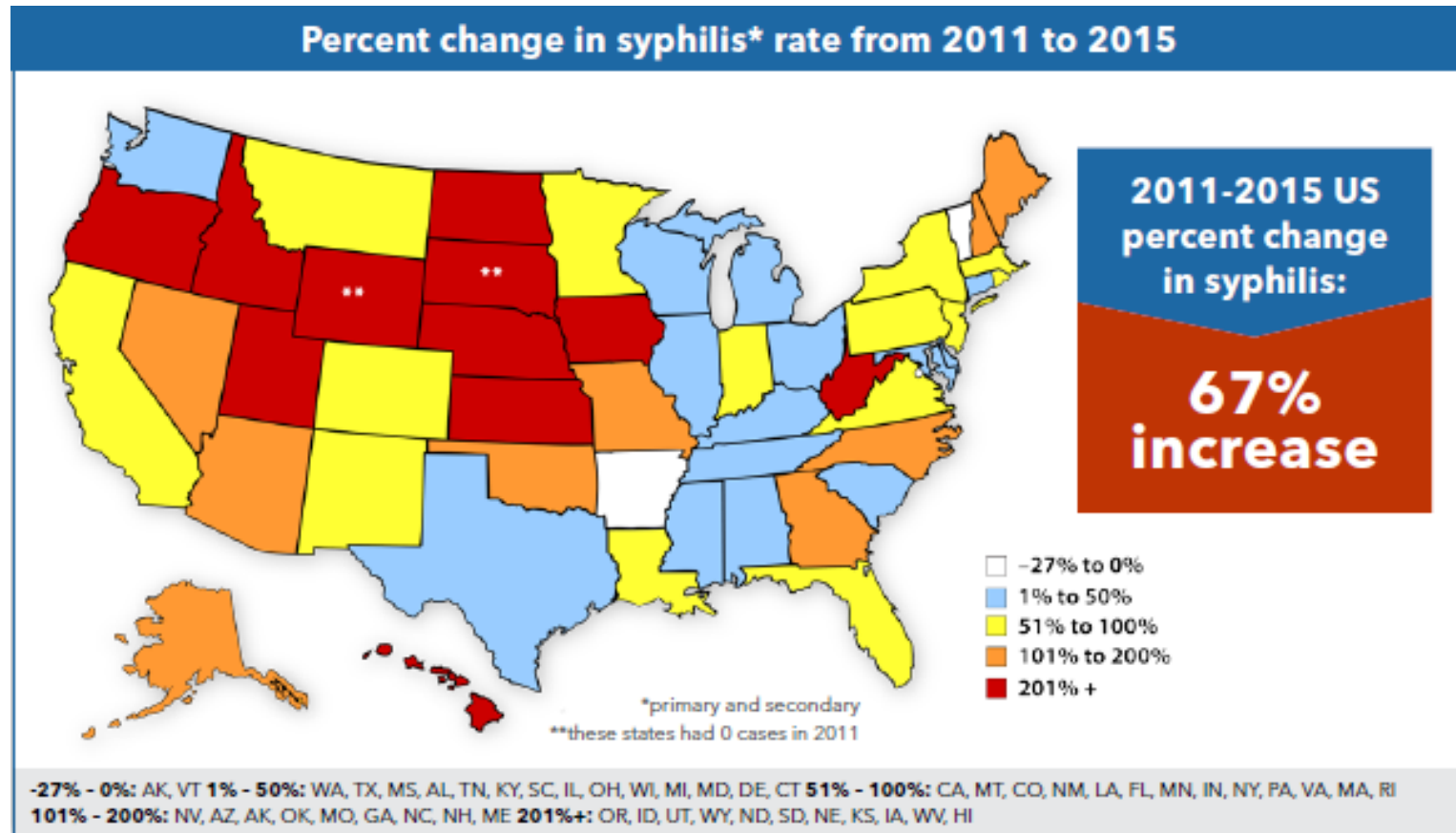


Rev. 7/2016

MSM=Men who have sex w/men, MSW=Men who have sex w/women, MSUnk=Men of unknown sexual orientation

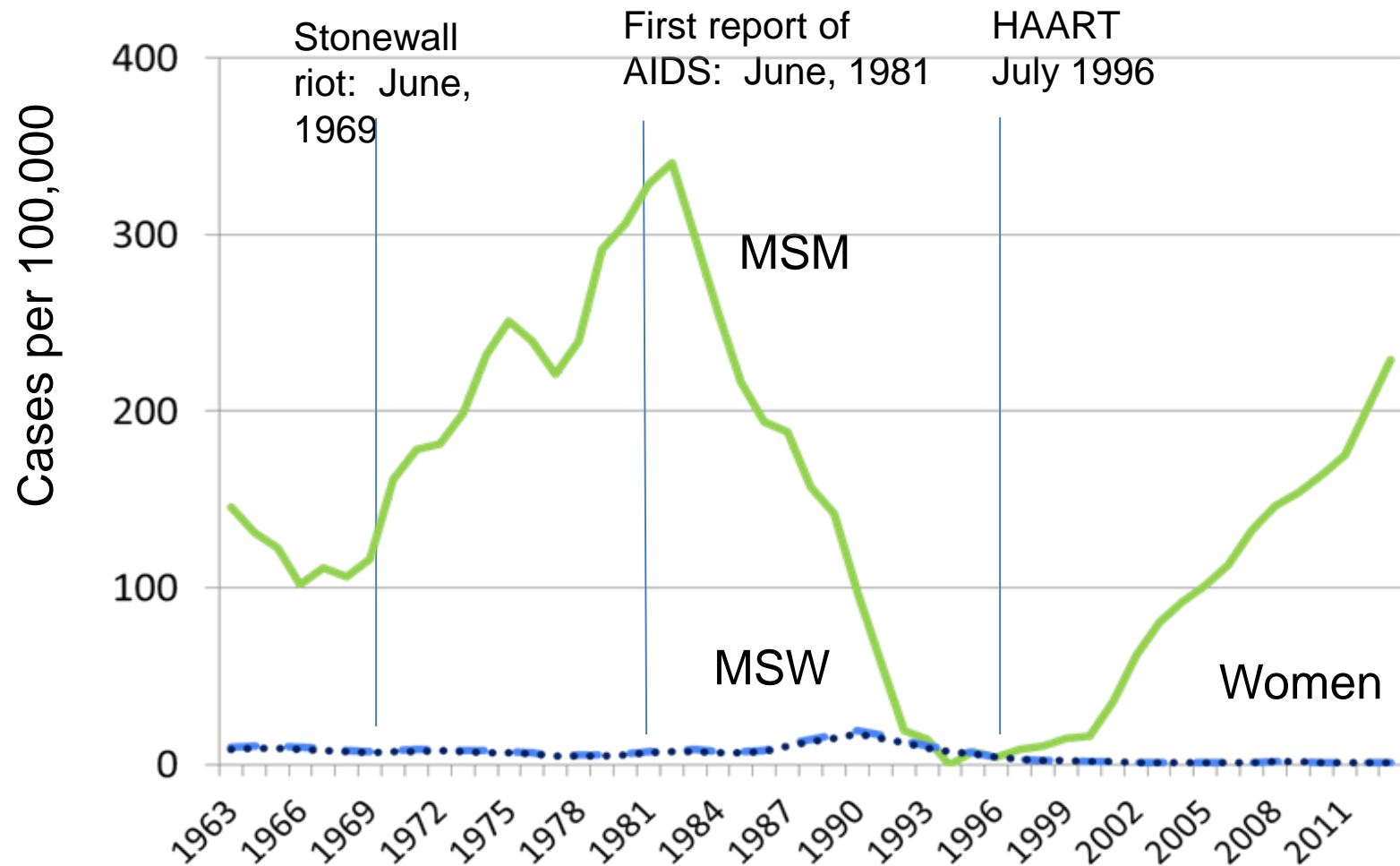
STD Control Branch

NATIONAL DATA



Source: CDC

Rates of Primary and Secondary Syphilis among Men who have sex with Men (MSM), men who have sex with women only (MSW), and women. United States, 1963-2013



Estimated using modified Heffelfinger M:F rate ratio of 1.1236, assuming no MSM had syphilis in 1994, and estimating 3.9% of men are MSM

DISEASE SURVEILLANCE AND INVESTIGATION

- Identifying new/active cases
- Verifying appropriate treatment
- Investigating primary, secondary and (female) early latent cases
 - Eliciting sexual partners
 - Notifying partners of potential exposure
 - Referring partners for testing +/- preventive treatment
- Educating cases to prevent future infections
- Linking cases to prevention services (e.g., HIV pre-exposure prophylaxis or PrEP)
- Determining pregnancy status of females of childbearing age
 - Pregnant syphilis cases are followed through delivery.

PRIORITIZING CASES FOR INVESTIGATION



California Syphilis Reactor Alert System

FEMALES									
Age	Biological False Positive	Qual. or + Conf. only	Titer						+ Darkfield
			1:1	1:2	1:4	1:8	1:16	≥1:32	
Prenatal (any age)									
0-44									
45-49									
50-59									
60+									
Unknown									
MALES									
Age	Biological False Positive	Qual. or + Conf. only	Titer						+ Darkfield
			1:1	1:2	1:4	1:8	1:16	≥1:32	
0-19									
20-29									
30-39									
40-49									
50-59									
60+									
Unknown									
Alert Code	Is Syphilis History Report necessary?	Action							
	YES	If reactor meets Criteria for Assignment*, create new incident in CalREDIE and assign to investigator within 1 working day.							
	YES	If reactor meets Criteria for Assignment*, create new incident in CalREDIE and assign to investigator within 2 working days.							
	YES	If reactor meets Criteria for Assignment*, more info required to rule out early syphilis infection. Initiate follow-up with provider. Phone call/query letter within 3 working days.							
	NO	Administrative closure, based on age and titer.							
	NO	Administrative closure, based on a negative treponemal test.							

*Criteria for Assignment: 1) No records of previous serology, OR 2) ≥ 4-fold titer increase (e.g. RPR 1:4 to 1:16), OR 3) history of negative serologic test for syphilis within past 12 months. See Step #3 of the California Syphilis Reactor Processing Algorithm.

COUNTY RESPONSE



WORKING WITH COMMUNITY PROVIDERS

- Biennial STD clinical updates for providers
- Provider visitations and presentations
- Accepting referrals for syphilis evaluation and treatment
- Mitigating national Bicillin L-A® shortage
- Clinical consultation pager
- Monthly STD report
- Health alerts for more urgent topics
- Ryan White quality assurance audits



Photo credit: WebMD



Date: May 10, 2016
To: CAHAN San Diego Participants
From: Public Health Services, HIV, STD and Hepatitis Services Branch

Limited Availability of Long-Acting Bicillin

This health advisory notifies CAHAN participants that there is a national shortage of the long-acting form of benzathine penicillin G that is recommended for treatment of most stages of syphilis and all pregnant women with syphilis (i.e., Bicillin LA) and requests local providers to prioritize the use of Bicillin LA for pregnant women who are infected with or exposed to syphilis.



INCREASE ACCESS TO TESTING AND TREATMENT

- Categorical STD clinics: priority given to syphilis cases and contacts
- Implement express visits (i.e., “drop-in testing”)
- PrEP-opportunity for STD prevention:
 - PrEP navigation services in main STD clinic and in FQHCs
 - Regular engagement of high-risk individuals in sexual health services
 - Regular STD testing is a requirement in PrEP programs
 - Counseling regarding limitations of PrEP

COMMUNITY ENGAGEMENT

- Develop request for proposals for community engagement activities with MSM population, including:
 - Street intercept interviews
 - Focus groups
- Funding source: \$250,000 of one-time increased STD funding from California legislature to the CDPH STD Control Branch (to be spent over FY16-17, FY17-18, and FY18-19)
- Objective is to gauge attitudes and needs of most affected community, in order to guide future activities.



FUTURE POSSIBILITIES

- Regional taskforce
- Syphilis awareness campaigns
- Engage with mobile app developers
- Biomedical STD prevention
- Improve syphilis surveillance

CDC CALL TO ACTION



New Tools Are Needed for Syphilis Prevention and Control

There is an urgent need for new tools to prevent, diagnose, treat, and manage syphilis. This will allow people to protect themselves from getting syphilis or learn quickly and easily if they have it; and help health care professionals monitor, and assure effective treatments for years to come.

0

NUMBER OF
VACCINES
AVAILABLE TO
PREVENT SYPHILIS

0

NUMBER OF
BLOOD TESTS TO
DIAGNOSE
ACTIVE SYPHILIS
INFECTION

75

NUMBER OF YEARS
CURRENT SYPHILIS
TREATMENTS HAVE
BEEN IN USE

74,702

NUMBER OF CASES OF SYPHILIS
DIAGNOSED IN 2015

GOAL

Create New Tools to Detect and Treat Syphilis

Syphilis is treatable, but the medicine used to treat the disease has been in use for 75 years. Tools to directly detect active syphilis infection in lesions such as commercially available nucleic acid tests or complex microscopy are not available for most clinicians. The currently available syphilis blood tests cannot detect active infection. Clinicians must use the blood test results along with other clinical findings to diagnose syphilis.

WHAT CAN BE DONE?

CDC Will

- › Develop and disseminate laboratory guidelines.
- › Create and make the syphilis specimen repository available for technological developments in diagnostics, therapeutics and vaccines.
- › Evaluate existing and new technologies and incorporate findings into diagnostic guidelines.
- › Develop novel diagnostic tools and better molecular surveillance tools, including strain surveillance.



Biomedical Scientists Can

- › Develop new tools for syphilis prevention, detection, diagnosis, and treatment.
- › Generate interest in the field.



Universities and Industry Can

- › Develop and bring to market novel syphilis tests to rapidly diagnose active infection in all disease stages.
- › Conduct clinical research to improve clinical management of all disease stages, including complications from treatment non-response, repeat infection, neuro- and ocular syphilis, and HIV co-infection.
- › Research effective vaccine design, acceptability, cost, and potential impact.
- › Stimulate training of biomedical and clinical researchers and address basic biological research questions (e.g., genetics, immune response, pathogenesis) in order to galvanize future technological advances.

GOAL

Improve Electronic Medical Records (EMRs)

Syphilis is a reportable disease that is increasing across the country. Keeping records of screenings, diagnoses, and treatment are vital to managing it and to enhancing surveillance efforts. Current EMRs may not include syphilis screening and treatment or have treatment guidelines available for easy access.

WHAT CAN BE DONE?

CDC Will

- › Implement a cloud-based application to make STD Treatment Guidelines available to all EMR systems.



Electronic Medical Record (EMR) Developers Can

- › Ensure that EMRs support syphilis screening and treatment in patients.



EMR Vendors Can

- › Support clinical data systems that include a patient's sexual history, including sexual orientation, gender identity, and gender of sex partners.
- › Incorporate accurate, updated STD screening and treatment recommendations into EMRs and clinical decision support systems.
- › Develop data systems that easily interface with STD program and laboratory data to enhance surveillance and support a better understanding of syphilis transmission.



LIVE WELL
SAN DIEGO

QUESTIONS?