Stemming the Rising Tide of Syphilis in California

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Goals of the Presentation

1. Describe the current situation
2. Explore potential contributing factors
3. Consider current and future strategies

- Re-consider current strategies
- Re-frame our role
- Re-define goals
- Re-direct resources
- Leverage partnerships
Early Syphilis & Gonorrhea by gender, CA, 2005–2015

*In 2015, MSM made of 70% of MALE early syphilis cases and 63% of MALE GC cases.*

Note: Alive, no signs includes alive with missing documentation on signs/symptoms.

Of 142 total cases in 2015, 117 alive w no signs, 12 alive with signs of CS, 13 stillbirth or neonatal death.
Primary & Secondary Syphilis, California versus United States Incidence Rates, 1941–2015

Rate per 100,000 population

Year


Rate

California

United States

CA=12.5

U.S.=7.5
Early Syphilis*, Number of Cases by Gender & Gender of Sex Partners, California, 1996–2015

TOTAL 2015 ES CASES = 8691 ↑ 29%

In 2015, MSM made of 70% of MALE early syphilis cases; 56% of MSM were HIV+

* Early syphilis includes primary, secondary, and early latent syphilis.
Early Syphilis*, Incidence Rates by County
California, 2015

* Includes primary, secondary, and early latent syphilis.

Rate per 100,000
- 0 cases reported
- < 5
- 5 to 14.9
- 15 +
Early Syphilis* among Females of Childbearing Age (15-44) AND Congenital Syphilis, Number of Cases by County, California, 2015

Female ES Cases

CS Cases

* Includes primary, secondary, and early latent syphilis.

Total= 142 CS cases
Number of Primary & Secondary Syphilis Cases by Region, Sexual Orientation, and Year, California, 2007–2016

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

• What is causing these increases?
• Why here?
• Why now?
• What has changed?
## Sexual Health: Prevention Strategies

<table>
<thead>
<tr>
<th>Method</th>
<th>HIV</th>
<th>STDs</th>
<th>Pregnancy</th>
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<tbody>
<tr>
<td>Condoms</td>
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<td>ART: Treatment as Prevention</td>
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<td>PEP and PrEP</td>
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<td>HIV Serosorting</td>
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<td>Circumcision</td>
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<td>Partners - # and concurrency</td>
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<tr>
<td>STD Testing &amp; Treatment</td>
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<td>Hormonal contraception, LARC</td>
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HIV PrEP?

SWALLOW THIS
PrEP and STIs
Kaiser Permanente San Francisco

STI Incidence After 12 Months of PrEP Use

- Any STI: 50%
- Rectal STI: 33%
- Chlamydia: 33%
- Gonorrhea: 28%
- Syphilis: 5.5%
- HIV: 0%

Volk et al. CID 2015;
Slide courtesy J. Volk
PrEP-ortunity to Engage in Care

• PrEP requires quarterly HIV testing/visits
• Engages highest risk persons
• Opportunity for education and counseling
• Frequent STD testing/screening
• Detection bias (↑STD) → Advantage in interrupting transmission thru treatment
Percent of Interviewed Primary & Secondary Syphilis Cases who Reported Meeting Sex Partners at Specified Venues, among Men who Have Sex with Men, California, 2007–2016

- Internet
- Bars/Clubs
- Bathhouses/Sex Clubs

Year


Percent of Cases

0 10 20 30 40 50
Mobile Hook-up Apps?
Dating and Hook Up Sites?
Bars, Bookstores, Bath Houses, Clubs, & Parties?
Access to STD Care?

- **12** STD Clinics in CA closed since 2005
- **4** Clinics re-opened by 2014
Meth?
Other drugs?

* Includes primary, secondary, and early latent syphilis.

MSM=Men who have sex w/men, MSW=Men who have sex w/women, MSU=Men of unknown sexual orientation
Poverty?
Effects of Recession on Unemployment
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

Peterman et al. Expert Rev Anti Infect Ther. 2015
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

- Stonewall riot: June, 1969
- First report of AIDS: June, 1981
- HAART: July 1996

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

Peterman et al. Expert Rev Anti Infect Ther. 2015
Re-Consider: Traditional Approaches to STD Control

- What is the right balance?
- How do we make the most of limited resources?
- What interventions are effective at reducing STDs among MSM?
- Should the goals be re-defined around HIV prevention?
Re-Frame Role:
Future Approaches to STD Control

• How can we move “upstream” to identify policy/structural/institutional solutions?
• How can we raise awareness about social determinants of STD?
• How do we engage those most at risk?
  – What are the goals?
  – What messages are effective?
• How do we leverage potential partners?
• What is the role of technology and social media?
# Partnerships:
## Shared Responsibility, Aligned Resources

<table>
<thead>
<tr>
<th>FOCUS</th>
<th>Focus Areas</th>
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<tbody>
<tr>
<td>Congenital syphilis</td>
<td>MCAH, Fetal death prevention, Birth defects prevention, MTCT of HIV prevention, Health insurance providers, Ob/gyns &amp; PNC providers, EDs, Corrections, Drug Treatment</td>
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<tr>
<td>STD in MSM</td>
<td>HIV prevention, HIV care, PrEP providers, CBOs serving LGBT, CSVs</td>
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<tr>
<td>Women</td>
<td>Family planning, pregnancy prevention, MCAH, Health insurance providers, Ob/gyns</td>
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<tr>
<td>Youth</td>
<td>Schools (California Healthy Youth Act), teen clinics</td>
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<tr>
<td>Drug users</td>
<td>Corrections, CBOs and drug treatment</td>
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</table>
Innovations & Technology

- ELR and ECR to improve surveillance efficiencies
- Improving access to testing: online testing options, Dean Street Clinic model
- Improved diagnostics: Point of care testing and same-day treatment, molecular tests for drug resistance
- Alternative antibiotics for GC
- Internet-based strategies for partner notification
- Social media, PrEP messaging
<table>
<thead>
<tr>
<th>GOAL</th>
<th>Opportunities for Integration</th>
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<tbody>
<tr>
<td>HIV case finding</td>
<td>• HIV testing of early syphilis cases</td>
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<td>• HIV PS for HIV coinfected cases</td>
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<td></td>
<td>• HIV testing of partners</td>
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<td>Linkage/Re-engagement with HIV Care</td>
<td>• HIV data sharing</td>
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<td>• Linkage to care programs</td>
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<td>• Outcome evaluation</td>
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<tr>
<td>HIV prevention</td>
<td>• Referral for nPEP, PrEP</td>
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<td></td>
<td>• Counseling and referral</td>
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<tr>
<td>STD case finding</td>
<td>• Access to rectal/throat testing</td>
</tr>
<tr>
<td></td>
<td>• STD screening every 3 mo for PrEP</td>
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<tr>
<td></td>
<td>• STD screening for PLWH</td>
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</tbody>
</table>
HIV testing among early syphilis cases initiated for field investigation/HIV diagnoses, CPA 2014-2015

- **CY 2014**
  - % cases tested: 70%
  - % cases newly diagnosed with HIV: 7%
  - N=1,797

- **CY 2015**
  - % cases tested: 66%
  - % cases newly diagnosed with HIV: 6%
  - N=2,296

N=1,253 for CY 2014 and N=1,504 for CY 2015.
HIV Co-Infection Among Early Syphilis Cases California, 2015

- Female: 4.3%
- MSW: 12.6%
- MSW&W: 27.9%
- MSM only: 57.7%
THINK PrEP: STDs increase risk of HIV

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
WE PLAY SURE
PrEP + CONDOMS

WE'RE CLOSER
THAN YOU THINK

Condoms are still an important way to prevent HIV. But now there's a once-per-day pill called PrEP that when used properly can be highly effective in preventing infection.

PrEP doesn't prevent other sexually transmitted diseases. Condoms, honest communication, and regular testing are still important tools in bringing an end to HIV.
HIV Status among Early Syphilis* Cases among MSM California Project Area & San Francisco†, 2014

Note: N=2,251; N does not include HIV status unknown or refused to state: 563 cases in 2014.

* Includes primary, secondary, and early latent syphilis.
† Los Angeles cases have been excluded as the data does not differentiate HIV results as being new or previous.
STD Screening Gaps among MSM in HIV Care

Medical Monitoring Project, nationally representative sample of 1,411 adults in HIV care, interviews and chart reviews:

CA data from 49 providers in 46 LHJs in 2014 (N=7006) and 70 providers in 56 LHJs in 2015 (N=13,089):

% of sexually active HIV+ MSM screened for STIs

Flagg EW, 2015, STD

CPA POMs Data
**Re-Direct Resources:**
Considerations for prioritizing STD efforts:

◊ Severity of adverse health outcomes
◊ Potential for prevention
◊ Infectiousness, risk to the community
◊ Inequities, vulnerability of the people affected
◊ Opportunities for improving health
◊ Return on investment
◊ Stakeholder interest
• What data are needed to assess effectiveness?
• At what point can we conclude that it’s just not working?
Summary of the Presentation

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THANK YOU!

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