Sexually Transmitted Disease Prevention

April 13, 2016
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National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Overview of Discussion

- STDs: a Public Sector Responsibility
  - STD prevention is HIV prevention
- Deteriorating Public Health Infrastructure for STD Prevention and Control
- Continued Need for Publicly Funded STD Services
- Resurgence of syphilis and congenital syphilis in the U.S.
SEXUALLY TRANSMITTED DISEASE PREVENTION AND CONTROL:
A JOINT RESPONSIBILITY BETWEEN FEDERAL, STATE AND LOCAL GOVERNMENTS
United States STD Control: The Approach from 1937 through Today

- Public sector responsibility to prevent and control the spread of STDs
- Health education, promotion and behavior change
- Identify and treat infected people through:
  - Screening of asymptomatic individuals and linking them to care
  - STD clinics (funded by states and localities) - mainly for symptomatic care
  - HD sexual partner notification and treatment
- Individually-based interventions
- Specialty clinics and disease intervention specialist (DIS) focus
STD Prevention is HIV Prevention

- STDs can increase susceptibility to and transmission of HIV
- STD treatment may reduce a person’s ability to transmit HIV
- HIV testing in STD clinics is a cost-effective HIV prevention strategy
- STDs are the most consistent risk factor for testing HIV positive among MSM
- STDs in MSM without HIV are important risk markers for HIV acquisition, and can help identify MSM who may benefit from PrEP
State and Local STD Prevention Funding

STD prevention in the U.S. is funded by federal, state, and local governments.

Federal Funds Support:
- Surveillance
- Provider training
- Contact tracing and linkage to care
- Health promotion/education and outreach
- Limited support for clinical preventive services

Some State and Local Health Departments Provide Additional Funding to Enhance or Support:
- Surveillance
- Contact tracing and linkage to care
- Health education
- STD clinical preventive services
- STD clinics or other clinical settings to provide specialized, confidential, same-day STD services.
  - Support includes STD specialized clinicians, on-site lab tests and STD medications.
FY 2015 CDC STI Funding ($157.3M)†

- 55% State and Local Program Grants
- 18% DSTDP Staff/Operations
- 11% CDC Support
- 8% Health Equity/Tuskegee
- 3% Research and Evaluation
- 3% Partnerships
- 3% Surveillance Centers
- 1% Training Centers
- 1% DA-Field Staff
- 0% Other support

† Amount does not include $10.1M HIV funding provided to state and local STD programs
* Includes Working Capital Fund, PHS, and other support
State and Local STD Prevention Programs Provide Vital STD and HIV Public Health Services

<table>
<thead>
<tr>
<th>Local STD Programs (FY12)</th>
<th>State STD Programs (FY12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>81% provided contact tracing</td>
<td>85% provided contact tracing</td>
</tr>
<tr>
<td>71% provided STD screening in non-clinical settings</td>
<td>57% provided STD screening in non-clinical settings</td>
</tr>
<tr>
<td>• 25% provided HIV field testing for STD contacts</td>
<td>• 38% provided HIV field testing for STD contacts</td>
</tr>
<tr>
<td>65% directly linked HIV+ identified in the field to care</td>
<td>92% directly linked HIV+ identified in the field to care</td>
</tr>
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</table>
STD Prevention Programs Provide Vital STD and HIV Public Health Services

- Each year, state and locally funded STD clinics identify
  - HIV
    - 20% of all new cases in the U.S. (8,400 cases)
  - Syphilis
    - 25% of all U.S reported cases in males; 19% in females
  - Gonorrhea
    - 20% of all U.S. reported cases in males; 9% in females
  - Chlamydia
    - 17% of all U.S. reported cases in males; 6% in females
DETERIORATING STD PUBLIC HEALTH INFRASTRUCTURE
Impacts of State and Local Budget Cuts to STD Prevention Programs

52% of STD programs experienced budget cuts in FY2012:

<table>
<thead>
<tr>
<th>Impact</th>
<th>% of programs with budget cuts reporting each impact*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced clinic hours</td>
<td>43%</td>
</tr>
<tr>
<td>Reduced oddslot screening</td>
<td>40%</td>
</tr>
<tr>
<td>Reduced contact tracing for chlamydia, gonorrhea and other non-syphilis infections</td>
<td>40%</td>
</tr>
<tr>
<td>Increased or initiated fees or copays</td>
<td>34%</td>
</tr>
<tr>
<td>STD clinic closures</td>
<td>7%</td>
</tr>
</tbody>
</table>

*Programs that had cuts could identify more than one impact; shown are the percentages of programs with cuts that identified at least one impact.

An estimated 21 local health department STD clinics closed in FY 2012.
# Impact of State and Local Budget Cuts on STD Prevention Programs

<table>
<thead>
<tr>
<th>Local STD Program Impact</th>
<th>% reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease in STD staffing (FY12)</td>
<td>18%</td>
</tr>
<tr>
<td>Decrease in disease intervention specialists (DIS)</td>
<td>48%</td>
</tr>
<tr>
<td>Decrease in clinicians</td>
<td>65%</td>
</tr>
<tr>
<td>STD staff detailed to other (non-STD) public health emergencies</td>
<td>36%</td>
</tr>
<tr>
<td>Reported this as a <em>major</em> impact on activities</td>
<td>22%</td>
</tr>
<tr>
<td>Decrease in staffing from FY06-FY11 (mean of 3 staff)*</td>
<td>34%</td>
</tr>
</tbody>
</table>

* Preliminary data by Cuffe KM, Leichliter JS, Gift TL
Change in syphilis rates in states funded vs. not funded for increased syphilis prevention*

* Increased funding initially provided in 1998/1999

CONTINUED NEED FOR PUBLICLY FUNDED STD SERVICES AFTER THE AFFORDABLE CARE ACT
Continuing Need for Publicly Funded STD Clinical Preventive Services

- In 2016, 4.6 million people (2.6 million women and 2 million men) ages 15 to 44 are both uninsured and in need of STD services
- In 2016, chlamydia-related services alone for this group will cost $150 million
  - This does not include other STD screening, testing, and treatment, such as for syphilis, gonorrhea, or HIV.
- The Affordable Care Act has reduced the number of uninsured people who need publicly funded STD services, but 4.6-4.7 million uninsured people are expected to need STD services annually through at least 2023

Continuing Need for State and Locally Funded STD Clinics After the Affordable Care Act

- An assessment of more than 4,300 patients of 21 state and locally funded STD clinics in the U.S. found:
  - Half of STD clinic patients were uninsured, and one-fifth were on Medicaid or Medicare
  - Half of the patients reported using the STD clinic primarily because they could walk-in or get a same-day appointment, and one quarter reported that low or no cost was the primary factor
  - If the STD clinic was not available, 1 out of 5 uninsured patients, and 1 out of 5 patients with Medicaid or Medicare, reported they would have gone to the hospital ER
    - The cost of STD testing in emergency departments is 15-80% higher than in other non-hospital settings

RESURGENCE OF SYPHILIS IN THE U.S.

- Congenital syphilis
- Women
- Men
- Ocular syphilis
Congenital Syphilis (CS) Cases and Rate of Syphilis† Among Females, U.S., 2008–2015*

*2015 data are preliminary, as of March 31, 2016
† Primary and Secondary Syphilis

- 31 states reported cases in 2014 (vs. 25 states + DC in 2013)
- 20 states with increased cases/rates during 2013–2014

Rates = cases per 100,000 live births
### Characteristics of Mothers Who Gave Birth to Infants with Congenital Syphilis in the U.S., 2014

<table>
<thead>
<tr>
<th>Did not receive prenatal care</th>
<th>Number (N=458)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not receive prenatal care</td>
<td>100</td>
<td>21.8%</td>
</tr>
</tbody>
</table>

Received prenatal care (N=314, 68.6%)

<table>
<thead>
<tr>
<th>Treatment Status</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No treatment</td>
<td>135</td>
<td>29.5%</td>
</tr>
<tr>
<td>Treated &lt;30 days prior to delivery</td>
<td>78</td>
<td>17.0%</td>
</tr>
<tr>
<td>Non-penicillin therapy</td>
<td>3</td>
<td>0.7%</td>
</tr>
<tr>
<td>Inadequate regimen for stage</td>
<td>13</td>
<td>2.8%</td>
</tr>
<tr>
<td>Adequate treatment</td>
<td>43</td>
<td>9.4%</td>
</tr>
<tr>
<td>Unknown treatment status</td>
<td>42</td>
<td>9.2%</td>
</tr>
<tr>
<td>Unknown prenatal care status</td>
<td>44</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vital status of infant</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Alive</td>
<td>357 (92%)</td>
<td>338 (95%)</td>
<td>314 (94%)</td>
<td>332 (93%)</td>
<td>420 (92%)</td>
</tr>
<tr>
<td>Infant death</td>
<td>7 (2%)</td>
<td>4 (1%)</td>
<td>3 (1%)</td>
<td>4 (1%)</td>
<td>8 (2%)</td>
</tr>
<tr>
<td>Stillborn</td>
<td>23 (6%)</td>
<td>13 (4%)</td>
<td>15 (5%)</td>
<td>22 (6%)</td>
<td>25 (6%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>1 (0.2%)</td>
<td>3 (1%)</td>
<td>2 (1%)</td>
<td>1 (0.3%)</td>
<td>5 (1%)</td>
</tr>
<tr>
<td>Total</td>
<td>387 (100%)</td>
<td>358 (100%)</td>
<td>334 (100%)</td>
<td>359 (100%)</td>
<td>458 (100%)</td>
</tr>
</tbody>
</table>
Syphilis* — Rate of Reported Cases, United States, 1990–2015†

2015†:
- 23,529 cases
- Rate increased 17% among men
- Rate increased 23% among women
- Highest rate since 1994

* Primary and secondary syphilis
† 2015 data are preliminary, as of March 31, 2016
# Syphilis Rates* by Region and Sex

<table>
<thead>
<tr>
<th>Region</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015†</th>
<th>% change 2014–2015†</th>
</tr>
</thead>
<tbody>
<tr>
<td>West total</td>
<td>4.9</td>
<td>5.7</td>
<td>6.7</td>
<td>7.8</td>
<td>9.4</td>
<td>21%</td>
</tr>
<tr>
<td>Females</td>
<td>0.4</td>
<td>0.5</td>
<td>0.8</td>
<td>1.2</td>
<td>1.6</td>
<td>34%</td>
</tr>
<tr>
<td>Males</td>
<td>9.3</td>
<td>10.9</td>
<td>12.6</td>
<td>14.4</td>
<td>17.2</td>
<td>20%</td>
</tr>
<tr>
<td>Midwest total</td>
<td>3.2</td>
<td>3.3</td>
<td>4.0</td>
<td>4.4</td>
<td>4.7</td>
<td>7%</td>
</tr>
<tr>
<td>Females</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.9</td>
<td>1.0</td>
<td>10%</td>
</tr>
<tr>
<td>Males</td>
<td>5.8</td>
<td>6.0</td>
<td>7.4</td>
<td>7.9</td>
<td>8.4</td>
<td>7%</td>
</tr>
<tr>
<td>South total</td>
<td>5.3</td>
<td>5.8</td>
<td>5.9</td>
<td>6.8</td>
<td>8.1</td>
<td>19%</td>
</tr>
<tr>
<td>Females</td>
<td>1.7</td>
<td>1.5</td>
<td>1.4</td>
<td>1.5</td>
<td>1.8</td>
<td>23%</td>
</tr>
<tr>
<td>Males</td>
<td>9.1</td>
<td>10.2</td>
<td>10.6</td>
<td>12.3</td>
<td>14.6</td>
<td>19%</td>
</tr>
<tr>
<td>Northeast total</td>
<td>3.8</td>
<td>4.3</td>
<td>4.8</td>
<td>5.5</td>
<td>6.4</td>
<td>18%</td>
</tr>
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<td>0.4</td>
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<tr>
<td>Males</td>
<td>7.4</td>
<td>8.4</td>
<td>9.3</td>
<td>10.7</td>
<td>12.5</td>
<td>17%</td>
</tr>
</tbody>
</table>

* Primary and secondary syphilis rates per 100,000 population.
† 2015 data are preliminary, as of March 31, 2016.
NOTE: % change calculated using precise (not rounded) rate.
Cases of Syphilis†, by Sex and Sex Partner, 27 states*, 2007–2015‡

*27 states reported sex of sex partner data for ≥70% of reported cases of primary and secondary syphilis for each year during 2007–2014.
‡2015 data are preliminary, as of March 31, 2016.
Ocular Syphilis Increase

Ocular syphilis: a manifestation of neurosyphilis affecting the eyes, which can occur at any stage of syphilis

- CDC issued a clinical advisory for ocular syphilis on 4/3/2015
- Majority of cases are among HIV-infected MSM
- 8 jurisdictions have reviewed their surveillance data, and have identified 382 cases from 2014 and 2015
- Several cases have resulted in significant outcomes including blindness

Preliminary Epi Aid Results: Ocular Syphilis Cases
North Carolina, 2014–2015

- 63 cases identified
- 94% male
  - 71% reported male sex partners
- 56% HIV-infected
- Patients identified throughout the state
- All of the cases were efficiently identified by disease investigation specialists (DIS), STD program “boots on the ground”
- Of the cases identified, 1 in 3 had reported or documented vision loss
Summary

- The congenital syphilis increase from 2013 to 2014 was 28%
- Syphilis among MSM equals the levels of infections seen prior to the HIV epidemic
- Erosion of STD public health infrastructure is impacting STD, HIV and other public health prevention responses
  - Reduction of DIS staff and closure of STD clinics is especially harmful
- There is a continuing need for publicly funded STD services post-ACA implementation
Thank you
Questions?

gyb2@cdc.gov

For more information please contact Centers for Disease Control and Prevention

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