Combating the Rising Syphilis Epidemic Through Local and State Leadership

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Acknowledgements

- NC Local Health Departments
- Community Based Organizations
- State and County DIS
- Community Hospitals and Providers
- UNC AIDS Training and Education Center (NC ATEC)
- TATP nurses
- CDB/DPH staff
Why is syphilis prevention & control important?

- Continually evolving epidemic
- During non-outbreak times syphilis is forgotten
- Individual and public health consequences are severe
- Appropriate control programs require a village
Steps for addressing the epidemic

• Understand the epidemic

• Identify how well current prevention and control efforts are working

• Identify achievable goals

• Develop action steps to achieve those goals
How many cases do we have, and among who?

SYPHILIS INCREASE IN NORTH CAROLINA, 2010-2016
National increase

Primary and Secondary Syphilis — Rates of Reported Cases by Region, United States, 2006–2015

Rate (per 100,000 population)

Year

Centers for Disease Control and Prevention 2015 STD Surveillance Report
Primary, Secondary, and Early Latent Syphilis Rates, North Carolina, 1999-2016 (preliminary) data

- Largest number of cases among young men; 72% MSM
- Increases across all race/ethnicity groups
- 6 counties accounted for >2/3 of the cases

Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of June 1, 2016).
North Carolina Early Syphilis Cases
Percent Change from 2014 (N=1121) to 2015 (N=1864) (66% Increase)
Jan. 1 through Dec. 31 by Date of Diagnosis
This is preliminary data and is subject to revision at any time.

NOTE: Data is preliminary
Data Source: NCEDSS (data as of April 4, 2016)

* Counties with 0 in previous year and increase cases are included in 1% - 25% category
49% of men with syphilis also have HIV. Should we expect an increase in HIV?
HIV appears to be increasing in 2016

New HIV diagnoses, Jan-July 2016 preliminary data

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>North Carolina</td>
<td>568</td>
<td>687</td>
</tr>
<tr>
<td>Black Mountain (Region I)</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>Charlotte (Region II)</td>
<td>149</td>
<td>172</td>
</tr>
<tr>
<td>Winston-Salem (Region III)</td>
<td>102</td>
<td>157</td>
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<tr>
<td>Raleigh (Region IV)</td>
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<td>147</td>
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<tr>
<td>Fayetteville (Region V)</td>
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<td>53</td>
</tr>
<tr>
<td>Winterville (Region VI)</td>
<td>75</td>
<td>85</td>
</tr>
<tr>
<td>Wilmington (Region VII)</td>
<td>24</td>
<td>41</td>
</tr>
</tbody>
</table>
Congenital Syphilis, Cases by Birth Year
North Carolina, 2006-2016 preliminary data

Data Source: Sexually Transmitted Disease Management Information System (STD*MIS) and North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of January 17, 2016).
Steps for addressing the epidemic

• Understand the epidemic

• Identify how well current prevention and control efforts are working

• Identify achievable goals

• Develop action steps to achieve those goals
Screening for syphilis among sexually active people with HIV

Screening is most important among GBMSM and women of childbearing age

Medical Monitoring Project
Sexually active people with HIV who are in care
NC, 2014

Ryan White Providers:

61% screened for syphilis in past year

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlamydia*</td>
<td></td>
</tr>
<tr>
<td>Gonorrhea*</td>
<td></td>
</tr>
<tr>
<td>Syphilis*</td>
<td>51%</td>
</tr>
</tbody>
</table>

Significant increase since 2009
Time to syphilis treatment, North Carolina, 2015

Total Early Syphilis

Percent of cases

- Same day: 39%
- <7 days: 67%
- <15 days: 82%

*Early Syphilis=Primary, Secondary and Early Latent Syphilis
*P&S Syphilis=Primary & Secondary Syphilis Only
Time to syphilis treatment, North Carolina, 2015
Primary and secondary syphilis

Gay, bisexual, and other MSM

- Same day: 49%
- <7 days: 78%
- <15 days: 91%

Women

- Same day: 40%
- <7 days: 69%
- <15 days: 86%
Time to syphilis treatment, 6 highest morbidity counties*, 2015

Total Early Syphilis

MSM
P&S Syphilis

Women
P&S Syphilis

Percent of cases

<table>
<thead>
<tr>
<th></th>
<th>Same day</th>
<th>&lt;7 days</th>
<th>&lt;15 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>41%</td>
<td>70%</td>
<td>83%</td>
</tr>
<tr>
<td>MSM P&amp;S</td>
<td>50%</td>
<td>80%</td>
<td>90%</td>
</tr>
<tr>
<td>Women P&amp;S</td>
<td>46%</td>
<td>71%</td>
<td>85%</td>
</tr>
</tbody>
</table>

*Cumberland, Durham, Forsyth, Guilford, Mecklenburg, Wake Counties

*Early Syphilis=Primary, Secondary and Early Latent Syphilis

*P&S Syphilis=Primary & Secondary Syphilis Only
Time to syphilis treatment, 94 lower morbidity counties*, 2015

Total Early Syphilis

- Same day: 36%
- <7 days: 62%
- <15 days: 82%

MSM P&S Syphilis

- Same day: 47%
- <7 days: 74%
- <15 days: 92%

Women P&S Syphilis

- Same day: 28%
- <7 days: 67%
- <15 days: 89%

*All counties except Cumberland, Durham, Forsyth, Guilford, Mecklenburg, Wake Counties

*Early Syphilis=Primary, Secondary and Early Latent Syphilis

*P&S Syphilis=Primary & Secondary Syphilis Only
Pregnancy and treatment among syphilis patients
Female syphilis patients, NC, Jan-June 2016

- Patients: 182
- Pregnant: 38
- CS prevented: 29 (76%)
- Presumptive CS: 9 (24%)
- Confirmed or stillbirth: 0
DIS Partner Services Data, 2016

- 98% of assigned cases were located and interviewed
  - 86% of cases were interviewed ≤ 14 days after assignment
- 76% of partners were located & brought to care
  - 60% of partners were located & brought to care ≤ 14 days
Steps for addressing the epidemic

• Understand the epidemic

• Identify how well current prevention and control efforts are working

• Identify achievable goals
  – Increase community awareness and screening
  – Prevent congenital syphilis
  – Reduce disease-associated morbidity

• Develop action steps to achieve those goals
Steps for addressing the epidemic

• Understand the epidemic

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  – Increase community awareness and screening
  – Prevent congenital syphilis
  – Reduce disease-associated morbidity

• Develop action steps to achieve those goals
CDB action steps to achieve goals

Increase awareness through communications with LHDs, CBOs, providers and the community

Provider Memos

NC Public Health

October 3, 2016

Public Health Advisory

TO: North Carolina Medical Providers

FROM: Victoria Mobley, MD MPH
Medical Director, HIV/STD Program

SUBJECT: Statewide Increase in Congenital Syphilis Infections

Congenital syphilis infections have been increasing in North Carolina since 2013. Between January and June of 2016, there have been 8 reported congenital syphilis cases in the state which is a 23% increase compared to the same time period in 2015.

Congenital syphilis occurs when a pregnant woman infected with syphilis transfers the infection to her unborn child. Untreated, congenital syphilis can result in devastating health consequences for the infant including birth defects, blindness, hearing loss, premature birth and low birth weight. Additionally, pregnant women infected with syphilis are at increased risk for miscarriage, stillbirth, and infant death (http://www.cdc.gov/std/syphilis/stdfact-congenital-syphilis.htm).

Congenital syphilis is preventable. But preventing it requires appropriate syphilis screening during pregnancy. The majority of congenital syphilis cases reported in NC since January 1, 2016 have been among infants born to mothers who acquired the infection during their pregnancy, often after having screened negative for syphilis during their first trimester.

WE ASK PROVIDERS TO REVIEW AND FOLLOW THE BELOW ACTION STEPS:

Fact Sheets

Syphilis Infections in North Carolina
Reported Syphilis Case Data, 2015

Reported syphilis infections have increased rapidly over the past few years.

Syphilis Infections by Gender and Diagnosed Year 2006-2015

- Women - Men

Syphilis is increasing in many different groups. The majority of cases are among men, many of whom have HIV.

Syphilis Rates among Women, 2012-2015

Syphilis Rates among Infants, 2008-2015
CDB action steps to achieve goals

Provided new tools to assist LHDs understand county specific morbidity and identify gaps in service delivery.

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**North Carolina Electronic Disease Surveillance System**

**Workflow Queues**

<table>
<thead>
<tr>
<th>Workflow Queue</th>
<th>Total Count (Assigned to me)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.4 HIV/AIDS/Syphilis Specific Workflows: Acknowledgement</td>
<td></td>
</tr>
<tr>
<td>330. LHD Acknowledgement of Syphilis Events: Initial Staging</td>
<td>335 (0)</td>
</tr>
<tr>
<td>335. LHD Acknowledgement of Syphilis Events: Re-Staged</td>
<td>21 (0)</td>
</tr>
</tbody>
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**Maven Reporting**

**Category:** Custom Reports

**Select Report:**

- Laboratory Report by Reporting Laboratory
- LHD Demographic Distribution CD
- LHD Demographic Distribution STD
- LHD Demographic Distribution STD line list
- LHD Demographic Distribution VPD
- LHD Syphilis Case & Risk Report
- LHD Syphilis Test & Treatment Report
- LTBI additional fields line list Tara
CDB action steps to achieve goals
Evolve outreach and partner notification practices to better address the dynamics of the epidemic

• Apps:
  – Post public health messages
  – Partner notification

• Social media:
  – Tweets and Facebook presence

Top 10 Websites reported by syphilis patients, 2013-2015

- Adam4Adam, 10%
- Jack’d, 8%
- Grindr, 7%
- Facebook, 4%
- BGC, 3%
- Instagram, 2%
- Craigslist, 2%
- Tagged, 1%
- Scruff, 1%
- KIK, 1%
CDB action steps to achieve goals

Identify health care practices that have contributed to the rise in congenital syphilis infections

- 10A NCAC 41A .0204 requires that all pregnant women be tested for syphilis:
  - first prenatal visit
  - between 28-30 weeks gestation
  - at delivery

- Implemented a quarterly congenital syphilis review panel
  - Identify where we could have intervened
Results of 2016 quarterly syphilis case review

- first prenatal visit
- between 28-30 weeks gestation
- at delivery

**Prenatal Care**

- N=14

**Trimester of Screening**

- 1st
- 2nd
- 3rd
- Delivery

- Screened
- RPRpos

% of mothers

# screened

Yes  No
CDB action steps to achieve goals
Support efforts aimed at preventing severe sequelae from untreated disease

• Ocular syphilis
  – Provider memo, sponsored webinar for LHDs and CBOs, Press release and tweets
  – Participated in CDC-sponsored ocular syphilis case review – results were published as CDC MMWR, November 2016

• HIV infection
  • 52% of males diagnosed with early syphilis in 2015 were not known to be HIV positive at that time
    – Only 66% were HIV-tested at the time of syphilis diagnosis

• Refer all HIV negative patients diagnosed with syphilis to a Pre-Exposure Prophylaxis (PrEP) provider
CDB action steps to achieve goals

Convene a planning meeting to bring the 6 highest morbidity counties together

• In October 2016, a 1-day syphilis summit was convened in Raleigh
  – LHD staff
  – Community Based Organizations
  – State and County Disease Intervention Specialists
  – CDB staff

• Goals were to:
  – Bring key stakeholders to the table
  – Identify county-wide resources
  – Develop county specific action steps
Wake County early syphilis numbers
Jan 1 through Nov 30, 2012-2016

- Enhanced quantitative and qualitative surveillance (Co-morbidity trends, interviews with clients)
- Enhanced Outreach Testing Efforts - (Jails, LGBT Center, Universities)
- Media Outreach multiple venues (press/social/ you tube, TV)
- CME Training opportunities for external providers and provided free reference book for STDs
- Partnered with local and state DIS, including have a DIS RN provide treatment and follow up at the LGBT center
- Provide clinical PrEP services
Wake county early syphilis numbers
Jan 1 through Nov 30, 2012-2016

Number of Early Syphilis Cases

- 2012
- 2013
- 2014
- 2015
- 2016
PrEP Implementation: Local Health Departments

Whitney Schwalm
CDC Public Health Associate - HIV & STDs, Communicable Disease Department
Cabarrus Health Alliance (CHA) 
Background

• CHA serves a population of 197,762  (U.S. Census, 2015)
• Clinic Staff: NPs, MDs, PA, RNs, ERRNS, lab technicians
• HIV Incidence, 3 Year Average Rate: 8.0/100,000 population, Rank: 50/92 counties (North Carolina Department of Health & Human Services, 2016)
• STD Visits
  – FY 2013-14: 1003
  – FY 2014-15: 1105
• HIV Tests
  – FY 2013-14: 808
  – FY 2014-15: 725
Implementation Timeline

December 2015
- Presentation of Need
- Project Proposal
- Formation of PrEP Work Group

Diagnoses of HIV infection, 2013, and persons living with diagnosed HIV infection (prevalence), year-end 2012, by metropolitan statistical area of residence—United States and Puerto Rico

Implementation Timeline

Jan-Feb, 2016

• Trainings & Capacity Building Assistance
• Request use of 340B funds
• Compiling resources
# Implementation Timeline

**March-May**

- Policies, Protocols, Licensures
- Gilead Assistance

<table>
<thead>
<tr>
<th>Initial Visit</th>
<th>30 Days</th>
<th>3 months</th>
<th>6 months</th>
<th>9 months</th>
<th>1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comprehensive Metabolic panel</strong>&lt;br&gt;Cr 8053; 82000&lt;br&gt;eCrCl 260mL/min</td>
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<tr>
<td><strong>Urineysis</strong>&lt;br&gt;81005</td>
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<tr>
<td><strong>Hep B Sig</strong>&lt;br&gt;87340; 005510&lt;br&gt;Hep B sig&lt;br&gt;*HCV Ab if needed</td>
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<tr>
<td>Syphilis RPR 88592&lt;br&gt;HIV-1 antigen, HIV-1/2 antibody 87389&lt;br&gt;NAAT STI Screen: 83160&lt;br&gt;Convin in woman; urine/rectal in man&lt;br&gt;H. gonorrhoeae&lt;br&gt;Cervical swab 87591&lt;br&gt;Chlamydia trach 87491&lt;br&gt;Trichomonas vaginalis 87651&lt;br&gt;GC Pharynx/Renal swab 87081; 008126</td>
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</tr>
<tr>
<td><strong>Screen for Acute HIV Infection</strong>&lt;br&gt;Fever, fatigue, skin rash, pharyngitis, cervical adenopathy</td>
<td>HIV rapid test&lt;br&gt;Screen for AIDS symptoms</td>
<td>HIV rapid test&lt;br&gt;Screen for AIDS symptoms</td>
<td>HIV rapid test&lt;br&gt;Screen for AIDS symptoms</td>
<td>HIV rapid test&lt;br&gt;Screen for AIDS symptoms</td>
<td>HIV rapid test&lt;br&gt;Screen for AIDS symptoms</td>
</tr>
<tr>
<td><strong>Risk-Reduction &amp; Adherence Counseling</strong>&lt;br&gt;Start-Up Syndrome&lt;br&gt;Mild headache, nausea, fatigue; resolves within first month for most&lt;br&gt;Give Condoms</td>
<td>Risk-Reduction &amp; Adherence Counseling&lt;br&gt;Assess side effects and need for continuing PrEP&lt;br&gt;Give Condoms</td>
<td>Risk-Reduction &amp; Adherence Counseling&lt;br&gt;Assess side effects and need for continuing PrEP&lt;br&gt;Give Condoms</td>
<td>Risk-Reduction &amp; Adherence Counseling&lt;br&gt;Assess side effects and need for continuing PrEP&lt;br&gt;Give Condoms</td>
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</tr>
<tr>
<td><strong>Rx 30 day</strong>&lt;br&gt;Truvada 1 tablet PO daily</td>
<td><strong>Rx 60 day</strong>&lt;br&gt;Truvada 1 tablet PO daily</td>
<td><strong>Rx 90 day</strong>&lt;br&gt;Truvada 1 tablet PO daily</td>
<td><strong>Rx 90 day</strong>&lt;br&gt;Truvada 1 tablet PO daily</td>
<td><strong>Rx 90 day</strong>&lt;br&gt;Truvada 1 tablet PO daily</td>
<td><strong>Rx 90 day</strong>&lt;br&gt;Truvada 1 tablet PO daily</td>
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</table>
Implementation Timeline

June-July, 2016

- Purchase Truvada
- Website
- Rapid HIV Testing
- Budget
- Internal education

www.cabarrushealth.org/prep
Implementation Timeline

August 2016 - Present

- Press release & Survey
- External education
- Clinic live
- Barrier Analysis
- Patient Cost Analysis

3 Clients active in care
Moving Forward

• Clinical Quality and Evaluation Measures
• Clinic Financial Analysis
• Social Marketing
• PEP?
• Expanding access to minors?
• Further Harm Reduction
  – Needle Exchange
Thank You!

Open Resource Drive:
https://drive.google.com/folderview?id=0Bxzdl9OjHqhQWjdLS01XcElxbnM&usp=sharing

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HIV & STDs, Communicable Disease
Cabarrus Health Alliance
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Email: Whitney.Schwalm@CabarrusHealth.org
References


Resources

• National Public Health Information Coalition (NPHIC) https://www.nphic.org/toolkits/std
• CDC partner notification http://www.cdc.gov/std/program/ips/components.htm
• Purchasing advertising space on Manhunt, Jack’d, Dandy http://www.online-buddies.com/advertising/
• Grindr contact: jack@grindr
• Free advertising for non-profits of scruff https://ads.scruff.com/
• CDC Syphilis webpage http://www.cdc.gov/std/syphilis/default.htm
• NC DPH syphilis webpage http://epi.publichealth.nc.gov/cd/diseases/syphilis.html
• Alabama-North Carolina STD/HIV Prevention Training Center http://nnptc.org/nnptc-resources/
• North Carolina AIDS Training and Education Center http://www.med.unc.edu/ncaidstraining
• Review article on available HIV/STD apps https://www.jmir.org/2013/1/e1/#Results