STD Data Release: 2015

Agenda

• Highlights from the 2015 STD Surveillance Data Report
  Dawn Ginzl, STD Surveillance Coordinator and Epidemiologist

• New Perinatal Syphilis Guidelines
  Kathy Chinn, Capacity Building Coordinator, STD/HIV/TB Section

• Ocular Syphilis
  Dawn Ginzl, STD Surveillance Coordinator and Epidemiologist

• Statewide STI Testing Day
  Nicole Elliot, Co-chair, CRUSH Health Access Action Team

• Questions
Highlights from the Sexually Transmitted Disease (STD) Surveillance Report, 2015

Minnesota Department of Health STD Surveillance System

Dawn Ginzl, STD Surveillance Coordinator and Epidemiologist
STDs in Minnesota
Rate per 100,000 by Year of Diagnosis, 2005-2015

- Chlamydia
- Gonorrhea
- P&S* Syphilis

* P&S = Primary and Secondary
STDs in Minnesota:
Number of Cases Reported in 2015

- Total of 25,989 STD cases reported to MDH in 2015:
  - 21,238 Chlamydia cases
  - 4,097 Gonorrhea cases
  - 654 Syphilis cases (all stages. Including 3 congenital syphilis)
  - 0 Chancroid cases
CHLAMYDIA
Chlamydia in Minnesota
Rate per 100,000 by Year of Diagnosis, 2005-2015

Rate of Chlamydia per 100,000

Year

Rate of Chlamydia per 100,000

241 per 100,000

400 per 100,000
Chlamydia Infections by Residence at Diagnosis Minnesota, 2015

Total Number of Cases = 21,238

- Minneapolis: 20%
- Greater MN: 31%
- Suburban: 32%
- St. Paul: 12%
- Unknown: 5%

Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (excluding Minneapolis), Ramsey (excluding St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties outside the seven-county metro area.
Age-Specific Chlamydia Rates by Gender
Minnesota, 2015

Age in Years

Rate per 100,000 persons

Males
Females

0 5 81 560 3284 1417 864 1258 370 434 150 109 72 43 25 9

Chlamydia Rates by Race/Ethnicity
Minnesota, 2005-2015

2015 rates compared with Whites:
- Black = 9x higher
- American Indian = 4x higher
- Asian/PI = 2x higher
- Hispanic = 3x higher

* Persons of Hispanic ethnicity can be of any race.
GONORRHEA
Gonorrhea in Minnesota
Rate per 100,000 by Year of Diagnosis, 2005-2015
Gonorrhea Infections in Minnesota by Residence at Diagnosis, 2015

Total Number of Cases = 4,097

- Minneapolis: 35%
- St. Paul: 16%
- Suburban: 26%
- Greater MN: 19%
- Unknown: 4%

Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (excluding Minneapolis), Ramsey (excluding St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties outside the seven-county metro area.
Age-Specific Gonorrhea Rates by Gender
Minnesota, 2015

Rate per 100,000 persons

Age in Years


Males
Females
Gonorrhea Rates by Race/Ethnicity
Minnesota, 2005-2015

* Persons of Hispanic ethnicity can be of any race.

2015 rates compared with Whites:
Black = 16x higher
American Indian = 7x higher
Asian/PI = 0x higher
Hispanic = 2x higher
Gonorrhea Rates by Race/Ethnicity
Minnesota, 2005-2015

* Persons of Hispanic ethnicity can be of any race.

* White
* American Indian
* Asian/PI
* Hispanic*

Rate per 100,000 persons

Year

Rate

SYPHILIS
Syphilis Rates by Stage of Diagnosis
Minnesota, 2005-2015

* P&S = Primary and Secondary
Primary & Secondary Syphilis Infections in Minnesota by Residence at Diagnosis, 2015

Total Number of Cases = 246

- Minneapolis: 52%
- St. Paul: 9%
- Suburban: 28%
- Greater MN: 11%
- Unknown: 0%

Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (excluding Minneapolis), Ramsey (excluding St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties outside the seven-county metro area.
Age-Specific Primary & Secondary Syphilis Rates by Gender, Minnesota, 2015
Primary & Secondary Syphilis Rates by Race/Ethnicity
Minnesota, 2005-2015

* Persons of Hispanic ethnicity can be of any race.
CHLAMYDIA AND GONORRHEA AMONG ADOLESCENTS & YOUNG ADULTS

Minnesota Department of Health STD Surveillance System

(15-19 year olds)       (20-24 year olds)
Chlamydia Disproportionately Impacts Youth

**MN Population in 2010**
(n = 5,303,925)
- <15 yrs: 20%
- 15-24 yrs: 14%
- 25-34 yrs: 13%
- 35+ yrs: 53%

**Chlamydia Cases in 2015**
(n = 21,238)
- 15-24 yrs: 63%
- 25-29 yrs: 19%
- 30-44 yrs: 15%
- 45+ yrs: 2%
- <15 yrs: 1%
Gonorrhea Disproportionately Impacts Youth

**MN Population in 2010**
(n = 5,303,925)

- 15-24 yrs: 14%
- <15 yrs: 20%
- 25-34 yrs: 13%
- 35+ yrs: 53%

**Gonorrhea Cases in 2015**
(n = 4,097)

- 15-24 yrs: 46%
- 25-29 yrs: 22%
- 30-44 yrs: 24%
- 45+ yrs: 7%
- <15 yrs: 1%
Gonorrhea Rates Among Adolescents & Young Adults†
by Gender in Minnesota, 2005-2015

† Adolescents defined as 15-19 year-olds; Young Adults defined as 20-24 year-olds.

Rate=Cases per 100,000 persons based on 2010 U.S. Census counts.
Topic of Interest: Early Syphilis Among Men Who Have Sex With Men in Minnesota

Minnesota Department of Health STD Surveillance System
### Early Syphilis by Gender and Sexual Behavior

**Minnesota, 2005-2015**

<table>
<thead>
<tr>
<th>Year</th>
<th>Early Syphilis Cases</th>
<th>Male Cases (%)</th>
<th>MSM Cases (% of males)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>116</td>
<td>109 (94)</td>
<td>100 (92)</td>
</tr>
<tr>
<td>2006</td>
<td>104</td>
<td>90 (88)</td>
<td>80 (89)</td>
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<tr>
<td>2007</td>
<td>114</td>
<td>111 (97)</td>
<td>103 (93)</td>
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<tr>
<td>2008</td>
<td>163</td>
<td>158 (97)</td>
<td>140 (89)</td>
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<tr>
<td>2009</td>
<td>117</td>
<td>106 (91)</td>
<td>96 (91)</td>
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<tr>
<td>2010</td>
<td>221</td>
<td>207 (94)</td>
<td>185 (89)</td>
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<tr>
<td>2011</td>
<td>260</td>
<td>246 (95)</td>
<td>218 (89)</td>
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<tr>
<td>2012</td>
<td>214</td>
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<td>261 (88)</td>
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<tr>
<td>2014</td>
<td>416</td>
<td>374 (90)</td>
<td>283 (76)</td>
</tr>
<tr>
<td>2015</td>
<td>431</td>
<td>341 (79)</td>
<td>222 (65)</td>
</tr>
</tbody>
</table>

MSM = Men who have sex with men

† Early Syphilis includes primary, secondary, and early latent stages of syphilis.
Early Syphilis† Cases Among MSM by Age
Minnesota, 2015 (n=222)

Mean Age = 36 years
Range: 18 to 68 years

MSM=Men who have sex with men
† Early Syphilis includes primary, secondary, and early latent stages of syphilis.
Early Syphilis† (ES) Cases Co-infected with HIV, 2007-2015

MSM=Men who have sex with men
† Early Syphilis includes primary, secondary, and early latent stages of syphilis.
Characteristics of Early Syphilis† Cases Among MSM, Minnesota, 2015

- Gay and bisexual men account for 65% of cases among men.
- 75% of cases among MSM are White, but a disproportionate number of cases (14%) are African American.
- 51% in the City of Minneapolis and 27% live in the suburbs.
- 56% of cases are also infected with HIV.

MSM=Men who have sex with men
† Early Syphilis includes primary, secondary, and early latent stages of syphilis.
Topic of Interest: Syphilis Among Females and Congenital Syphilis in Minnesota

Minnesota Department of Health STD Surveillance System
Syphilis Among Females, Minnesota, 2015

- Primary Syphilis – 18 cases
- Secondary Syphilis – 21 Cases
- Early Latent Syphilis – 49 cases
- Late Latent Syphilis – 85 cases
Female Early Syphilis cases

NUMBER OF FEMALE EARLY SYPHILIS CASES

Year


Number of Cases

109 83 74 52 22 17 7 10 13 22 12 9 6 8 14 2 5 9 14 13 18 30 41 88
Early Syphilis Infections in Women in Minnesota by Residence at Diagnosis, 2015

Total Number of Cases = 88

- Minneapolis: 51%
- St. Paul: 12%
- Suburban: 30%
- Greater MN: 7%
- Unknown: 0%

Suburban = Seven-county metro area including Anoka, Carver, Dakota, Hennepin (excluding Minneapolis), Ramsey (excluding St. Paul), Scott, and Washington counties. Greater MN = All other Minnesota counties outside the seven-county metro area.
Early Syphilis Cases in Females by Race
Minnesota, 2015

Total Number of Cases = 88

- Black: 41%
- White: 31%
- American Indian: 19%
- Asian/PI: 3%
- Other*: 1%
- Unknown: 5%

*Includes persons reported with more than one race
What’s Being Done in Minnesota?

- The MDH Partner Services Program continues to follow up on early syphilis cases and their sex partners and all pregnant syphilis cases.

- All HIV/Syphilis co-infected cases are assigned to Partner Services for follow-up.

- Physicians are encouraged to screen men who have sex with men at least annually and to ask about sex partners.

- All pregnant females should be screened for syphilis at first prenatal visit, 28 weeks’ gestation (at minimum 28-36 weeks), and at delivery.
STD Surveillance Summary

Minnesota Department of Health STD Surveillance System
Summary of STD Trends in Minnesota

- From 2005-2015, the chlamydia rate increased by 66%. The rate of gonorrhea remained the same between 2014 & 2015. Rates of reported syphilis increased in 2015 compared to 2014 by 3%.

- Minnesota has seen a resurgence of syphilis over the past decade, with men who have sex with men and those co-infected with HIV being especially impacted. However, the number of females is at a record high for the last decade.

- Persons of color continue to be disproportionately affected by STDs.

- STD rates are highest in the cities of Minneapolis and Saint Paul. However, chlamydia and gonorrhea cases in the Twin Cities suburbs and Greater Minnesota account for 63% of the reported cases in 2015.

- Adolescents and young adults (15-24 years) have the highest rates of chlamydia and gonorrhea, making up 61% of new infections in 2015.

- Between 2014 and 2015, early syphilis cases increased by 4%. Men who have sex with men comprised 65% of all male cases in 2015; cases among women are continuing to increase.
Future Updates to STD Reporting

- New case report form to accommodate changes in treatment guidelines
- Case report form is be able to be filled out on a computer and printed to be mailed or faxed in
- All cases co-infected with HIV (diagnosed in the last year)/Gonorrhea, HIV/Syphilis, and Early Syphilis will be continue to be assigned to MDH Partner Services for follow-up
- All Gonorrhea cases continue to have the potential for being contacted by MDH for additional follow-up
For more information, contact:

- **STD Surveillance Data**
  
  [Dawn.Ginzl@state.mn.us](mailto:Dawn.Ginzl@state.mn.us), 651-201-4041

- **MDH Partner Services Program**
  
  [Brian.Kendrick@state.mn.us](mailto:Brian.Kendrick@state.mn.us), 651-201-4021
New Perinatal Syphilis Screening Guidelines

Presenter:
Kathy Chinn
Capacity Building Coordinator
Why new guidelines?

- Increase of infectious and latent syphilis cases among women of child-bearing age
- All racial and ethnic groups, including pregnant women
- Half of the pregnant women with syphilis were in Greater Minnesota and half in the Twin Cities area
- Minnesota has not seen this many reported cases of syphilis in women for over 20 years and this trend is occurring nationally
Why new guidelines?

- Within second half of 2015, 3 cases of congenital syphilis reported to MDH
- There have been no reported cases in the prior four years.
  - Consequence of untreated syphilis in pregnant women includes congenital syphilis, stillbirth and irreversible effects on the newborn.
  - Congenital syphilis can be severe and life threatening.
- Consult with CDC, perinatal and pediatric partners
Co-signed letter with new recommendations January 2016

- Ruth Lynfield, M.D. State Epidemiologist and Medical Director Minnesota Department of Health
- Susan Berry, M.D. President, Minnesota Chapter of the American Academy of Pediatrics
- M. Tariq Fareed M.D. President, Minnesota Academy of Family Physicians
- Carrie Neerland, APRN, CNM & Jess Holm, APRN, CNM Co-Presidents, Minnesota Affiliate of the American College of Nurse Midwives
- Douglas Creedon, M.D. Chair, Minnesota American Congress of Obstetricians and Gynecologists
What are the guidelines?

- **Screen/Test ALL** pregnant women at:
  - First prenatal visit
  - 28 weeks’ gestation (at minimum between 28-36 weeks)
  - Delivery
What are the guidelines?

- Become familiar with MDH syphilis screening guidelines and protocols
- Check that syphilis serology has been done on all pregnant women. If it has not been done, perform serology prior to discharge. Pediatric providers should check mother’s results on all births
- Testing for syphilis can be done at additional times if it is identified during prenatal visits there is concern about syphilis exposure
- An HIV test should be conducted along with the initial syphilis test at the first prenatal visit
What are the guidelines?

- Make sure to test and treat sex partners of patients who test positive. Obtain partner information from patients and encourage them to work with the MDH Partner Services Program.

- Test any woman delivering a stillborn at 20 week gestation or further for syphilis at the time of delivery.

- Report cases (including syphilitic stillbirths) within 24 hours to MDH at 651-201-5414 or 1-877-676-5414.

- Review the clinical findings suggestive of congenital syphilis.
How is implementation going?

- **Off to a good start!**
  - All major metro area healthcare systems are on board and have changed protocols/discharge orders
  - Greater MN healthcare systems are coming on board
  - MDH has provided consultation and Grand Rounds to systems, clinics and providers
  - Insurance pays for screening tests as ordered by providers— not a barrier
Resources

- See: http://www.health.state.mn.us/divs/idepc/diseases/syphilis/hcp/protocol.html
- Visit the MDH website for more detailed treatment guidelines, to learn more about syphilis and the Partner Services Program, http://www.health.state.mn.us/divs/idepc/diseases/syphilis/index.html
- Report cases (including syphilitic stillbirths) within 24 hours to MDH at 651-201-5414 or 1-877-676-5414
Ocular Syphilis

Presenter:
Dawn Ginzl
STD Surveillance Coordinator/Epidemiologist
What is Ocular Syphilis?

- Ocular syphilis can involve almost any eye structure.
- Posterior uveitis and panuveitis are the most common.
- Additional manifestations may include anterior uveitis, optic neuropathy, retinal vasculitis and interstitial keratitis.
- The vast majority of eye problems associated with syphilis are also associated with many other infectious and non-infectious diseases.
What stages of syphilis involves the eye?

- **Every** part of the eye can be involved during **any** stage of the infection.
- All stages of syphilis can have eye involvement.
- Eye involvement occurs most frequently in secondary syphilis and late syphilis.
Are ocular syphilis and neurosyphilis the same thing?

- No, but there is a lot of overlap
- Ocular syphilis can be associated with neurosyphilis.
- Both ocular syphilis and neurosyphilis can occur at any stage of syphilis
Diagnostics

- Ophthalmologic exam
- Syphilis serologies: RPR, VDRL, treponemal tests
- Lumbar puncture
Diagnostic Considerations

- Most diagnoses are presumptive
- Most patients will have positive serological tests
  - In patients with late ocular syphilis, 30% may have a NEGATIVE serum RPR but all will have a positive serum treponemal test
  - VERY rarely, someone with early syphilis (primary stage) will have negative syphilis serologies (both treponemal and RPR) and eye symptoms
Do you need to do an LP in someone who only has eye symptoms and no neurological symptoms?

- YES, and here’s why:
  - If the CSF VDRL is positive in someone who has eye symptoms, you can make a DEFINITIVE diagnosis of ocular syphilis (that’s really the only way to make a DEFINITIVE diagnosis)
  - Up to 70% of patients with ocular syphilis will have evidence of neurosyphilis on LP
  - If they have evidence of neurosyphilis, the clinicians will need to follow them with LPs every 6 months to make sure they are responding to therapy
Ocular Syphilis / Neurosyphilis Treatment

Recommended regimen:
- Aqueous Crystalline Penicillin G 18-24 mu IV daily administered as 3-4 million units IV q 4 hr for 10-14 days

Alternative regimen:
- Procaine Penicillin G 2.4 mu IM daily plus Probenecid 500 mg PO q d, both for 10-14 days
Ocular Syphilis in Minnesota

- Seven cases of ocular syphilis were reported in MN in 2015
  - 2 females, 5 males
  - Ages ranged from 25 to 68
  - 5 White, 2 African American
  - 2 secondary syphilis, 1 early latent, 4 late latent
  - 2 HIV+
  - 5 Minneapolis, 2 Anoka County

- Symptoms at diagnosis included:
  - Uveitis, Eye Pain, Blurry Vision, Loss of vision in one eye
Reporting Ocular Syphilis

- Case Definition: a person with clinical symptoms or signs consistent with ocular disease (i.e. uveitis, panuveitis, diminished visual acuity, blindness, optic neuropathy, interstitial keratitis, anterior uveitis, and retinal vasculitis) with syphilis of any stage

- Report to the Minnesota Department of Health within 24 hours of diagnosis at (651) 201-5414
Thank you to:
Johns Hopkins School of Medicine &
the Centers for Disease Control for
information used to develop this
presentation
CRUSH

Nicole Elliott
CRUSH Leadership Team Member

April 11th, 2016
MDH STD Data Release Webinar
What is CRUSH?

**CRUSH** is a partnership of youth-serving organizations and community members formed in mid-2013 to address the increasing rates of chlamydia infections among teens and young adults in our community.

**GOAL: TO REDUCE STI RATES AND IMPROVE THE SEXUAL HEALTH OF YOUTH IN MINNEAPOLIS.**
CRUSH’s Mission

**CRUSH** mobilizes individuals, organizations, and the community to eliminate chlamydia infections in North Minneapolis through advocacy, education, prevention, and treatment.
The role of the leadership team is to **support and direct** CRUSH’s efforts to eliminate chlamydia infections in North Minneapolis through advocacy, education, prevention, and treatment.

<table>
<thead>
<tr>
<th>Sara Hollie</th>
<th>Mark Campbell</th>
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<tr>
<td><strong>Leadership Team Co-Chair</strong></td>
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<tr>
<th>Trina Pearson &amp; Brenda Lynn</th>
<th>Gabriel McNeal</th>
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<td><strong>Youth Engagement Action Team</strong></td>
<td><strong>Policy Action Team</strong></td>
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<th>Nicole Elliott &amp; Fred Evans</th>
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<td><strong>Affordable and Accessible Health Services Action Team</strong></td>
<td><strong>Evaluation Action Team</strong></td>
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<th>Leadership Committee</th>
<th>Desmond Grady &amp; Audrey Neal</th>
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<td><strong>Education and Community Outreach Action Team</strong></td>
<td><strong>Communications Action Team</strong></td>
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<th>Fred Evans</th>
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<td><strong>Funding &amp; Resources Action Team</strong></td>
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Our Accomplishments to Date

**June 2013-December 2014**

- Developed the strategic plan as the North Mpls Chlamydia Partnership.
- Hosted the 1st community forum to raise awareness of our effort and the problem.

**January 2014-August 2014**

- Launched the strategic plan based on grant goals as CRUSH.
- Secured funding.
- Decide on a logo.
- Launched the CRUSH website and Facebook page.
- Convene our Youth Council.
Our Accomplishments to Date

- **September 2014-December 2015**
  - Established the CRUSH Leadership Team.
  - Work in action teams on strategic plan goals.
  - Work to expand the efforts of our Youth Council.
  - Organized CRUSH’s 1st City Wide STI Testing Day
  - Received the Teenwise Community Partner Award
  - Awarded the MDH Chlamydia Strategy Grant – Re-launched Youth Council Efforts
  - Completed 1st Young Men’s Sexual Health Barbershop Project.
  - Planning the 2nd STI Testing Day – Statewide focus.
Secret’s Spread It! Talk About It!

The Secrets Spread It! Talk About It! initiative’s goal is to improve the sexual health of youth and young adults ages 15-22 in the City of Minneapolis through a focus on addressing chlamydia infection, screening and treatment disparities and inequities. This Youth-Led initiative will use three strategies:

1. City-Wide Sexual Health Night Out
2. City-Wide “Battle of the Youth Councils” Vine contest
3. City-wide “Bring out the Parents/Guardians” forum
CRUSH City-wide “Sexual Health Night Out”
Summer 2016

CRUSH’s Youth Leadership Council will host a City-wide “Sexual Health Night Outs” to promote the importance of STI Testing and peer education/communication about sexual health. The events will take place in area high schools or other youth-friendly settings that will include peer-to-peer education, entertainment, food, fun and encourage testing for youth aged 15-22.
Secret’s Spread It! Talk About It!: Strategy II

CRUSH City-Wide “Battle of the Youth Councils” Vine contest

CRUSHs Youth Leadership Council will lead a "Battle of the Youth Councils" Vine contest awarding local youth and youth councils with prize money for the best Vine video or Vine/Snapchat series addressing the epidemic of chlamydia and key prevention strategies.
Secret’s Spread It! Talk About It!: Strategy III

CRUSH City-wide “Bring out the Parents/Guardians” forum

CRUSH’s Youth Leadership Council will host "Bring out the Parents and Guardians" forums to promote intergenerational conversations about the epidemic of chlamydia, and to mobilized parents and caregivers to be primary source educators about sexual health and STI prevention to youth.
2nd Annual Statewide Testing Day

- Expansion of 2015 Twin Cities Youth STI testing Day
  - 18 clinics, 99 youth participants, 11% positivity for CT.
  - Partnership with MCP, MDH, Minneapolis Health Department, MN STD Hotline, CRUSH, and many others.
- 50+ clinic sites participating statewide on April 12th, 2016.
CRUSH’S Future

What do we envision for our future?

- Continue to strengthen the governance, structure and roles of CRUSH’s leadership committee and partnership
- Continue to work on achieving the goals of our strategic plan through targeted Action Teams
- Continue to expand the Youth Council and work on the Secrets Spread It, Talk About It Initiative
- Increase community engagement
- Raise awareness about STIs and the importance of youth sexual health, and young men’s health
- Evaluate our impact and progress
CRUSH Website: http://www.crushsti.com/
CRUSH Facebook Page: https://www.facebook.com/crushsti
Contact information:

nicole.elliott@minneapolismn.gov
Questions?

Thank you!

- Dawn Ginzl, STD Surveillance Coordinator and Epidemiologist
dawn.ginzl@state.mn.us, 651-201-4041

- Kathy Chinn, Capacity Building Coordinator, STD/HIV/TB Section
kathy.chinn@state.mn.us, 651-201-4008

- Nicole Elliot, Co-chair, CRUSH Health Access Action Team
nicole.elliott@minneapolismn.gov

- www.health.state.mn.us/divs/idepc/dtopics/stds/stats/index.html