Meningococcal Outbreak Response
Partners Meeting 11/17/15

• Summary of outbreak and response (Sarah Kemble, MD)
• Partners Survey results (Allison Arwady, MD)
• Discussion and feedback
Partners’ Survey and Suggestions for CDPH: 2015 Meningococcal Response

Partners’ Meeting
Chicago Department of Public Health
November 17, 2015
Survey Respondents to Date

- 44th Ward-Alderman Tunney
- Brothers Health Collective
- Center on Halsted
- Coalition for Justice and Respect
- CommunityHealth
- CORE Center, Cook Co HHS
- Erie Family Health Center
- Haymarket Center

- HBHC
- Heartland Health Outreach
- Heartland Human Care Services
- Lurie Childrens
- MATEC
- Mercy/Michael Reese Care Program
- Near North Health Service
Survey Respondents to Date

- Neel French, MD SC
- Northwestern Medicine
- Presence Lakeview Internal Medicine
- Presence Medical Group—Lincoln Park Family Medicine
- Rush University Medical Center, Division of Infectious Diseases
- Test Positive Aware Network
- The Night Ministry
- UIC Community Outreach Intervention Projects/HIV Community Clinic Network
- University of Chicago Primary Care Group and Student Health
- Walgreens
Partner Organizations' Self-Reported Response Activities (n=24)

- Used CDPH education materials: 14
- Used own education materials: 6
- Vaccinated in clinic: 14
- Vaccinated in outreach setting: 7
- Community outreach messaging: 15
- Posted on Social media: 8
- Conference calls/meetings w/CDPH & partners: 12
- Other: 5
Partners’ Self-Reported Barriers to Response

- No previous outreach to gay/bisexual men
- Other work priorities or staffing limitations
- Funding limitations
- Difficulty arranging clinical partners or vaccination access
- Difficulty receiving outreach materials from CDPH
- Other barriers
“Conduct consistent outreach and vaccination events at public parks where African American MSM typically congregate, and do so during late evening and weekend hours when men predominate these locales.”
CDPH Communication Efforts

- Very Good: 58%
- Good: 29%
- Average: 13%
Preferred Terminology

<table>
<thead>
<tr>
<th>Category</th>
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<tr>
<td>Men who have Sex with Men</td>
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<td>Gay/Bisexual Men</td>
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<td>Same Gender Loving</td>
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Better Organized Contact Lists

“CDPH should have an ongoing gate keeper listing on file to identify early respondents to mobilize community...”
Clearly Define Population At Risk (and Communicate Updates to Those Definitions)

“Ambiguity about what risk behaviors justified outreach. Few in our setting were clearly at high risk. In clinical practice, we don’t have a list of “at-risk” MSM, a relatively small subset of our MSM.”
If your organization has not filled out the survey, please do so! Link is in your email and below:

https://www.chicagohan.org/ViewsFlash/servlet/viewsflash?cmd=showform&pollid=EXT!MeningFeedback
Serogroup C Meningococcal Disease Among Chicago-Area Men Who Have Sex With Men, 2015

Sarah Kemble, MD
October 21, 2015
Meningococcal Disease, Serogroup C
Chicago Area 2015

Number of Cases

Illness Onset Date

First 3 cases confirmed serogroup C

Vaccination campaign, EpiX, HAN alerts posted

Expanded vaccination recommendations to all Chicago MSM

Pride Week
Black Pride

Outbreak Case Characteristics

• 7 cases
  – 6 in Chicago, 1 in neighboring county
  – Age range 29–54 years
  – 1 death
  – 6 African American
  – 5 HIV+
  – 5 reported anonymous sex, 1 sex worker
  – 5 reported meeting partners using “hook-up” apps
  – Molecular epidemiology matched for all case isolates

• CDPH traced intimate contacts of cases and provided prophylaxis when indicated
Chicago Invasive Meningococcal Disease By Serogroup, 2010–2015

Reported Cases

- Serogroup C
- Other serogroups
- MSM

Serogroup C Meningococcal Disease Clusters Among MSM

- Toronto, 2001—6 cases
- Chicago, 2003—5 cases indistinguishable by PFGE
- New York City, 2010-2013—outbreak of 22 cases closely related by PFGE
- Los Angeles, 2013—4 cases
New York City Outbreak 2010-2013

![Graph showing monthly invasive serogroup C incidence and cumulative vaccine uptake, New York City, New York, USA, 2009–2015. *Vaccine uptake among MSM only as part of outbreak response. MSM, men who have sex with men; non-MSM, men who do not have sex with men.](image)

Kratz et al, Emerging Infectious Diseases, [www.cdc.gov/eid](http://www.cdc.gov/eid), Vol. 21, No. 8, August 2015
New York City Outbreak 2010-2013

Figure 1. Monthly invasive serogroup C incidence and cumulative vaccine uptake, New York City, New York, USA, 2009–2015. *Vaccine uptake among MSM only as part of outbreak response. MSM, men who have sex with men; non-MSM, men who do not have sex with men.

Kratz et al, Emerging Infectious Diseases, www.cdc.gov/eid, Vol. 21, No. 8, August 2015
CDPH Meningococcal Vaccination Campaign Components

• Federally funded 317 vaccine distribution
  – CDPH “pop-up” clinics
  – Partner clinic sites
  – Pharmacies (Walgreens)

• Communications/Media

• Community Outreach (Ryan White grant recipients and other community partners)

• Evaluation
“Pop-Up” Meningococcal Vaccination Clinics

- Illness Onset Date
- Vaccination campaign kick-off
- First 3 cases confirmed serogroup C
- Expanded vaccination recommendations to all Chicago MSM
- Sommarfest/South Side Park
- Gym Vaccination Event
- Pride Week
- Chicago Black Pride
- CDPH Back to School Vaccination Events
- Church Event
- Market Days

Events:
- 5/12/15
- 5/26/15
- 6/9/15
- 6/23/15
- 7/7/15
- 7/21/15
- 8/4/15
http://chicagomeningvax.org
Media Campaign

- Press Release - television, radio, print media
- Paper canvassing – posters, flyers, palm cards
- Billboards
- Action Alerts to community partners
- Twitter feeds, Facebook posts
- Push notifications on hook-up apps
- Digital Ads – Facebook, Twitter, Google
If you’re a man who has sex with men, you’re at risk for meningitis. Meningitis can be extremely serious and even deadly.

Meningitis is spread through intimate activities like kissing and sexual contact or sharing drinks or cigarettes. Signs and symptoms are fever, headache and a stiff neck.

If you’re at risk, call your doctor, pharmacist or 311 for vaccination information. You can also visit www.cityofchicago.org/health for more information.

If you believe you have any symptoms, seek medical help immediately.

Get The Facts. Get Vaccinated.

Get vaccinated today at Club Escape

Vaccines are also available at the following locations:

Englewood Clinic, 641 W 63rd St, Thurs 9-4:30pm, Fri 8am-3:30pm
Walgreens, 11 E 75th St, open 24 hours
Walgreens, 7109 S Jeffery Ave, 24 hours

For a full list of clinics visit www.cityofchicago.org/health and click on the MENINGITIS link
Engagement of Community-Based Partner Organizations

• HIV/MSM providers
• STI clinics
• Community-based organizations and outreach groups
• LGBT and African American Aldermens’ Caucuses
• Gyms, bars/clubs, health fairs, community events
• Churches
• House Ball networks
Meningitis 317 Vaccine Doses Administered by Week and Site, Chicago, 2015 (as of 10/13/2015)

n=11,185

CDPH VACCINATION EVENTS
HOWARD BROWN
WALGREENS
CORE CENTER
OTHER

- Center on Halsted festival (1,035)
- 7 Eleven Parking Lot (415)
- Side Track Bar (158)
- North End Bar (140)
- Center on Halsted (117)
- Montrose Rocks (104)
- Big Chicks (61)

- 7 Eleven Parking Lot (415)
- Market Days (212)
- AIDS Run/Walk (53)
- Union Park (42)

*incomplete data
†reporting backlog
Challenges: Who Is At Risk?
Challenges: Demographic Disparities

Prevalence of HIV among Black or Hispanic MSM, Chicago (as of 12/31/2014)

Chicago 2015 Meningococcal outbreak case distribution by community area

Data Source: City of Chicago GIS Services, CDPH - HIV/AIDS
Reporting System as of 12/31/2014
Challenges: Highest Risk Least Aware

**Awareness of Outbreak by Race**

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<td>Chi-Square</td>
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</table>

Temi Folaranmi MD, MPH, MPP, EIS Officer, MVPD Branch, NCIRD, Centers for Disease Control and Prevention, Epi-Aid 6/2015–10/2015, Survey of Clients at Vaccination Sites
Challenges: Fighting Denial and Stigma

“When we first heard about this [outbreak] we assumed, it’s those white boys in Uptown bringing it in...We never thought it was happening in our community.”

“It feels like HIV all over again. Like, everything bad happens to [black gay men].”
Summary of Challenges Encountered During Outbreak Response

• How to reach members of social networks designed to preserve anonymity?
• How to facilitate communication and community participation to close knowledge gaps in underserved communities?
• How to deliver vaccine in these areas despite relative lack of infrastructure?
Tracking Vaccine Administration Reported to CDPH by Site

Federal (317) Meningococcal Vaccine Administration by Location, Chicago 2015

Vaccine Administration Site
- Walgreens
- Permanent Clinics
- Vaccination Events

Region
- Northwest
- South
- West
- Southwest
- North
- Far South

Number of Vaccines
- <20
- 20 - 49
- 50 - 99
- 100 - 499
- 500 - 999
- >1000

Data source: Immunization Program (Data as of 10/16/2015)
City of Chicago GIS Shapefile
Map Prepared by: Margaret Eagles, MPH, MLPP;
Sarah Kemble, MD, and Maribel Torres-Chavez, MPH
Tracking Vaccine Uptake By Using I-CARE Vaccine Registry

Residence of Individuals Receiving Meningococcal Vaccine by Chicago Community Area, 2015
Includes Vaccines Administered at CDPH Partner Clinics and Pop-up Clinics as of 06/15/2015

June 15
N=888

Map prepared by Whitney Clegg, CSTE Fellow, IDPH
Tracking Vaccine Uptake By Using I-CARE Vaccine Registry

Map prepared by Whitney Clegg, CSTE Fellow, IDPH
Tracking Vaccine Uptake By Using I-CARE Vaccine Registry

Residence of Individuals Receiving Meningococcal Vaccine by Chicago Community Area, 2015
Includes Vaccines Administered at CDPH Partner Clinics and Pop-up Clinics as of 07/31/2015

Map prepared by Whitney Clegg, CSTE Fellow, IDPH
Tracking Vaccine Uptake By Using I-CARE Vaccine Registry

Residence of Individuals Receiving Meningococcal Vaccine by Chicago Community Area, 2015

Includes Vaccines Administered at CDPH Partner Clinics and Pop-up Clinics as of 08/31/2015

August 31
N=6707

Map prepared by Whitney Clegg, CSTE Fellow, IDPH
Tracking Vaccine Uptake By Using I-CARE Vaccine Registry

Residence of Individuals Receiving Meningococcal Vaccine by Chicago Community Area, 2015

Includes Vaccines Administered at CDPH Partner Clinics and Pop-up Clinics as of 09/30/2016

September 30
N=7458

Map prepared by Whitney Clegg, CSTE Fellow, IDPH
Second Dose For People Living With HIV

• HIV-positive individuals require 2 doses of meningococcal vaccine, given 8 weeks apart

• How to identify those living with HIV?
• How to ensure they return for second dose?
CDPH “Pop-up” Clinic Costs

Total Cost: $51,672.76*

- Clinical Staff: 69%
- Outreach Staff: 20%
- Medical Supplies: 11%

*Does not include vaccine cost.
Number of Vaccinations By Event Type

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<th>Type</th>
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<th>Number of persons vaccinated</th>
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<tr>
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<td>Other</td>
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<td>Park</td>
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<td>64</td>
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<tr>
<td>Bathhouse</td>
<td>2</td>
<td>30</td>
</tr>
</tbody>
</table>

- Events
- Persons vaccinated
Media Costs

Paid Media Channels

- $15,000
- Facebook/Twitter
- Grindr
- Radio

Free Media Channels

- Jack’d
- Scruff
- Manhunt
- Digital Billboard

Total Cost: $19,000
Total Cost of Vaccination Campaign to CDPH

TOTAL EXPENDITURE  ~ $70,000 not including staff time

STAFF TIME
• 30+ CDPH staff involved
• ~ 3,732 person-hours devoted to response (May-October)
• Equivalent to 466 eight-hour days
Conclusions

• Demographic most affected by meningococcal outbreak (AA, HIV+, “high-risk”) also most challenging to reach

• Pop-up clinics quickly boosted numbers vaccinated, but permanent clinical sites critical for sustained response

• Vaccination campaign imposed substantial burden on CDPH and its partners

• Community partners critical for outreach and response
What’s Next?: Vaccination Campaign
Numbers as of November 17, 2015

• CDPH has distributed 15,985 vaccine doses to 80 vaccination sites
• At least 12,206 vaccine doses have been administered
  – 3530 by CDPH directly (including pop-up clinics)
  – 8676 by partners (including clinical sites)
• 793 second doses (for HIV+ individuals) have been administered
What’s Next?: Vaccination and Ongoing Community Outreach

• Now in Phase 2/sustained vaccination
• CDPH ordering vaccine doses (317) from CDC and distributing to clinical sites as needed
• Continue to promote vaccination of all MSM in Chicago area
• Continue to promote second dose of vaccine for all HIV+ MSM in Chicago area
What’s Next?: Vaccination “Endpoint”?

• Anticipating possible expansion of ACIP recommendation for MCV4 to all adult MSM
• NYC currently recommends MCV4 for all MSM
• Other cities with large MSM populations considering similar recommendations
• Chicago providers should continue to ensure all MSM are up-to-date on MCV4 vaccine, including 2nd dose for HIV positive MSM
What’s Next?: Evaluation of Response and Community Engagement

• Partners Survey results