

## It's Not Over Till It's Over: Why We Need to Keep Vaccinating Against Meningococcal Disease

Sarah Kemble, MD August 14, 2015

## **Overview**

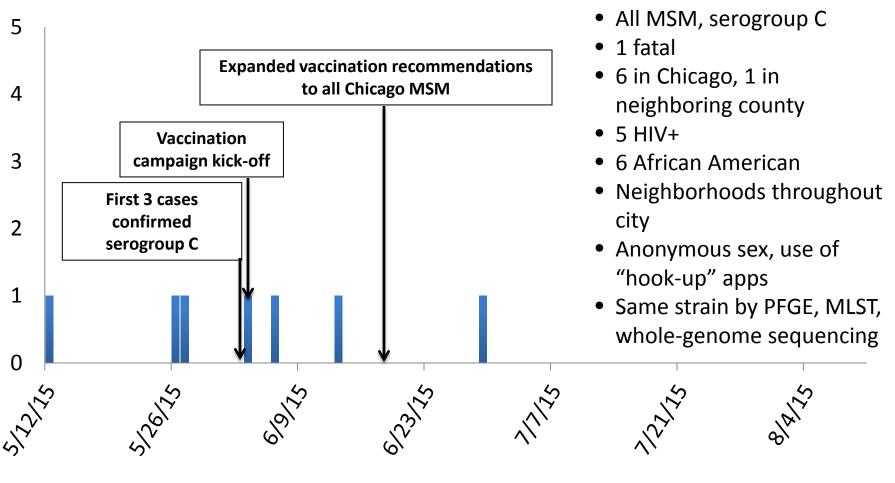
- Summary of Chicago-area outbreak
- Updates on IMD among MSM in U.S.
- Ongoing vaccination response in Chicago
- Provider Survey results
- Addressing Barriers to Vaccination

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## Meningococcal Disease Outbreak, Chicago Area 2015

7 cases



**Illness Onset Date** 

## **Extended Case Investigations**

- During primary investigations, up to 9 contacts per case met indications for prophylaxis
- No direct epidemiologic links found
  - Challenge of aliases, temporary phone numbers, anonymous contacts
- HIV partner services
- Identify additional vaccination targets
  - Individuals, friend networks, venues

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# Serogroup C Meningococcal Disease Among MSM

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

## New York City Outbreak 2010-2013

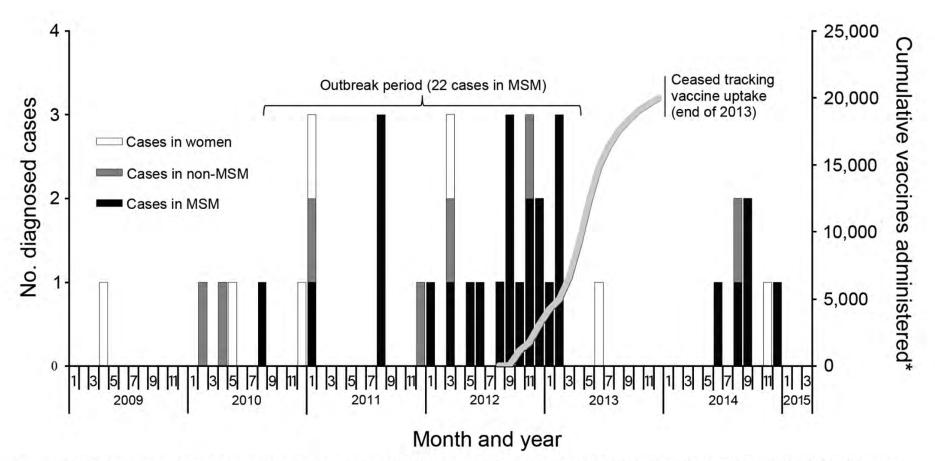


Figure 1. Monthly invasive serogroup C incidence and cumulative vaccine uptake, New York City, New York, USA, 2009–2015. \*Vaccine uptake among MSM only as part of outbreak response. MSM, men who have sex with men; non-MSM, men who do not have sex with men.

# New York City Outbreak 2010-2013

**Table 2.** Risk factors for meningococcal disease among case-patients with outbreak-related serogroup C meningococcal disease and controls with amebiasis or giardiasis, New York City, New York, USA, 2012–2013\*

	Case-patients, no. responded/total	Controls, no. responded/total	Crude matched odds ratio	Matched odds ratio adjusted for HIV
Variable	(%), n = 17	(%), n = 51	(95% CI)	infection (95% CI)
Black race	10/17 (58.8)	5/50 (10.0)	12.0 (2.8-81.6)	8.0 (1.6-63.7)
Household with >1 other person	9/16 (56.3)	10/51 (19.6)	5.6 (1.5-27.0)	3.7 (1.0-18.0)
Tobacco smoking	6/17 (35.3)	14/50 (28.0)	1.4 (0.4-4.5)	0.9 (0.2-3.3)
Shared a drink	5/11 (45.5)	14/39 (35.9)	1.1 (0.2-4.8)	1.2 (0.3-5.5)
Drug use in month before illness onset				
Marijuana	3/15 (20.0)	13/51 (25.5)	0.7 (0.1-2.9)	0.5 (0.1-2.4)
Methamphetamine	7/17 (41.2)†	0/50 (0)	28.8 (5.6-∞)‡	16.6 (3.1-∞) <sup>±</sup>
Cocaine	4/14 (28.6)	0/51 (0)	15.9 (2.7-∞)‡	11.2 (1.8-∞)‡
Sexual risk				
Sex with >1 man during month before illness onset	8/13 (61.5)	18/51 (35.3)	2.6 (0.7–10.7)	2.8 (0.7–13.7)
Met a male sex partner during month before illness onset online or at bar or party versus other ways§	7/10 (70.0)	21/40 (52.5)	2.1 (0.5–11.6)	1.8 (0.4–10.6)
Chlamydia, gonorrhea, or syphilis diagnoses during the year before diagnosis date¶	9/17 (52.9)	6/51 (11.8)	7.2 (2.0–33.8)	4.7 (1.2–23.5)
HIV infected	10/17 (58.8)	13/51 (25.5)	6.4 (1.5-45.1)	NA

\*Denominators exclude unknown and refused answers. Values in bold indicate mid-p exact p<0.05. NA, not applicable.

+One patient answered don't know, but laboratory testing at hospital indicated methamphetamine use.

‡Median unbiased estimate of the odds ratio.

§Other ways of meeting included work, school, through a friend, gym, sports group, sex party, or other.

¶Diagnosis date refers to the diagnosis date of serogroup C meningococcal disease for case-patients and diagnosis date of amebiasis or giardiasis for controls.

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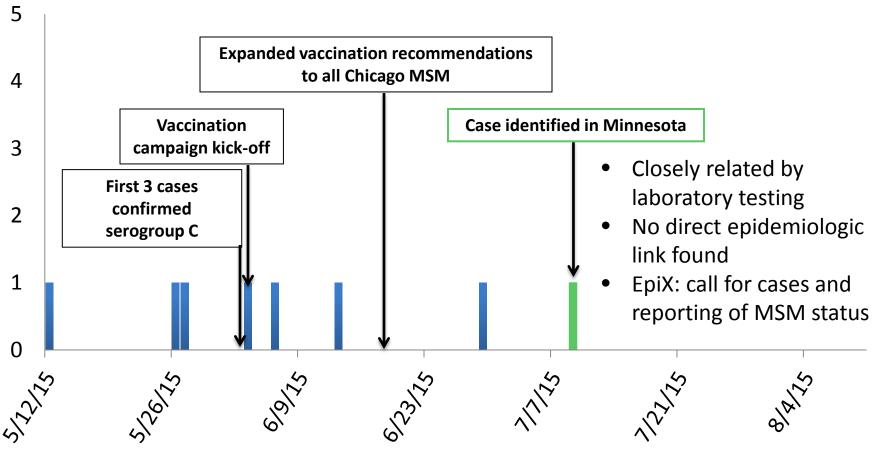
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## Meningococcal Disease Outbreak, Chicago Area 2015



**Illness Onset Date** 

### News and Announcements

News and Announcements Home

2015 news releases

2014 news releases

2013 news releases

Audio Clips

Podcasts

Public Service Announcements

Resources for reporters

Information Officers

## July 17, 2015

**News Release** 

### **Contact information**

Health officials urging men who have sex with men (MSM) to seek meningococcal vaccination following death of man from meningococcal meningitis

Meningococcal outbreaks among MSM have occurred in Chicago, New York, Los Angeles

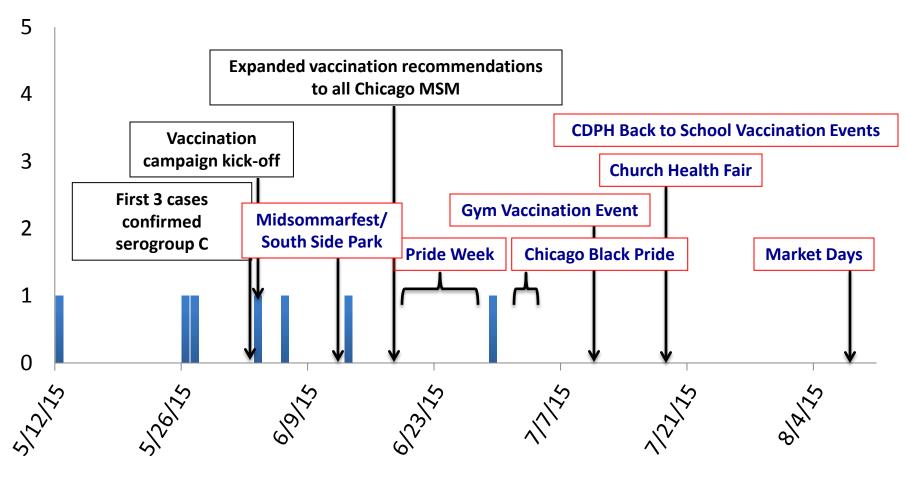
Vaccine recommended for:

- All HIV-infected MSM
- MSM, regardless of HIV status, who regularly have close or intimate sexual contact with men met through an online website, digital application ("app"), or at a bar or party.

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## Meningococcal Disease Outbreak and Response, Chicago Area 2015



**Illness Onset Date** 

# CDPH 317 Vaccine Distribution (as of 8/14/15)

- 13,825 doses distributed
- 8,879 doses administered (64%)
  - 5,903 doses by 77 providers including 24
    Walgreens locations
  - 2,976 doses at CDPH-sponsored pop-up vaccination clinics

## www.cityofchicago.org/health

8+1 2





RSS

## Supporting Information Facts

## **City Services**

- I Want To...
  - **Apply For**
  - **Check Status Of**
  - Find/Get
  - Pay For/Buy
  - Register
  - **Report/File**
  - Request
  - Sign up for/Volunteer

## **Meningococcal Vaccine Locations**

Tweet 120

In June 2015, CDPH identified an outbreak of invasive meningococcal disease (IMD) among men who have sex with men. IMD can cause meningitis and is extremely dangerous.

The vaccine is available at no cost at the below clinics and partner sites, where a co-pay may apply. CDPH recommends that **all MSM** get vaccinated.

For more information on IMD click here.

Like

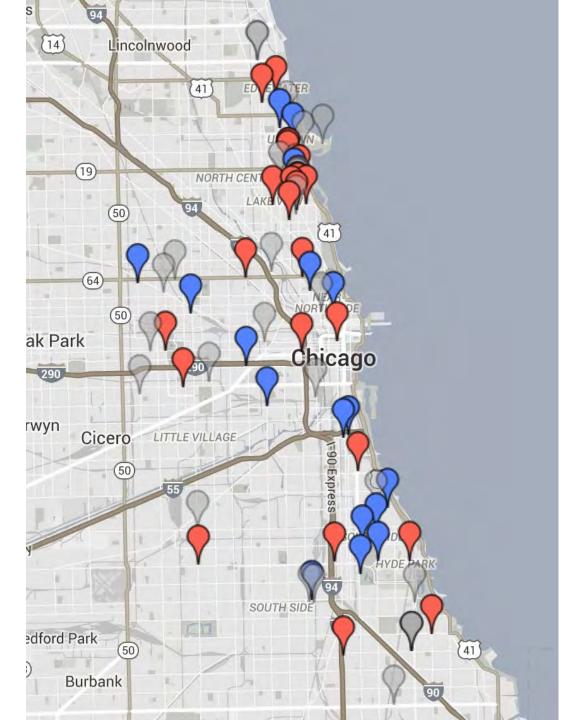
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Visit www.ChicagoMeningVax.org to use the online vaccination locator.

#### Vaccine will be administered at the upcoming events below:

L	Date	Location	Hours
l	Friday, August 14, 2015	Family Guidance Center, 310 W. Chicago Ave. (BCBS CareVan)	9:00 am to 1:00 pm
	Tuesday, August 18, 2015	HRDI, 33 E. 114th St. (BCBS CareVan)	9:00 am to 1:00 pm
	Wednesday, August 19, 2015	North Lawndale ATC, 2839 W. Fillmore (BCBS CareVan)	9:00 am to 1:00 pm
	Friday, August 21, 2015	Dvorak Park, 1119 W. Cullerton (BCBS CareVan)	10:00 am to 2:00 pm
	Saturday, August 22, 2015	Sue Gin Health Clinic, 2333 W. Jackson (BCBS CareVan)	12:00 pm to 4:00 pm
	Tuesday, August 25, 2015	Rincon Family Services, 3809 W. Grand Ave. (BCBS CareVan)	9:00 am to 1:00 pm
	Wednesday, August 26, 2015	Pacific Garden Mission, 1458 S. Canal St. (BCBS CareVan)	9:00 am to 1:00 pm

## http://chicagomeningvax.o rg



# Media Campaign

- Press Release television, radio, print media
- Action Alerts to community partners
- Twitter feeds, Twitter chat, Facebook posts
- Push notifications on hook-up apps
- Paper canvassing posters, flyers, palm cards
- Billboards
- Digital Ads Facebook, Twitter, Google, targeting by zip code, interests, keywords

## **CDPH Palm Card**

## 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.**

HEALTHY

## **CDPH Fillable Flyer**

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## Get The Facts. Get Vaccinated.

## Get vaccinated today at Club Escape

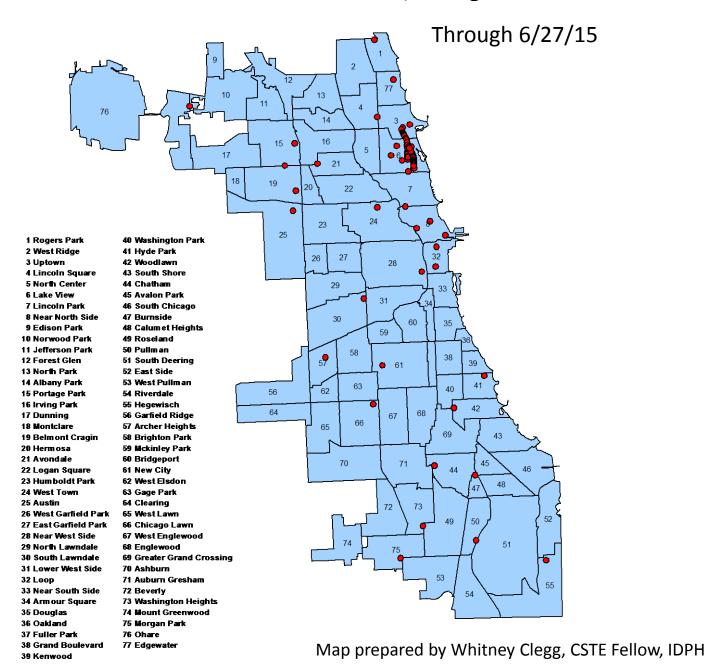
Vaccines are also available at the following locations:

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

For a full list of clinics visit <u>www.cityofchicago.org/health</u> and click on the MENINGITIS link



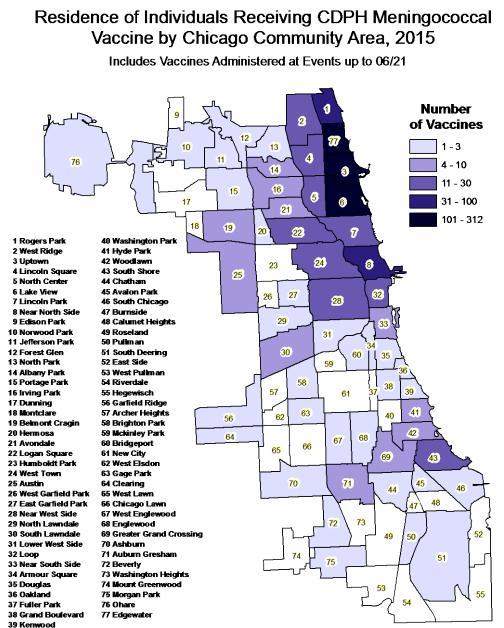
### Locations of IMD Materials Distributed, Chicago 2015

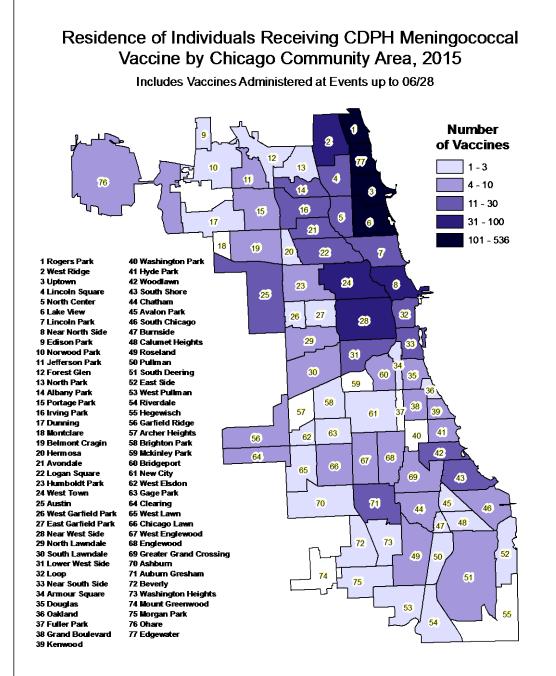


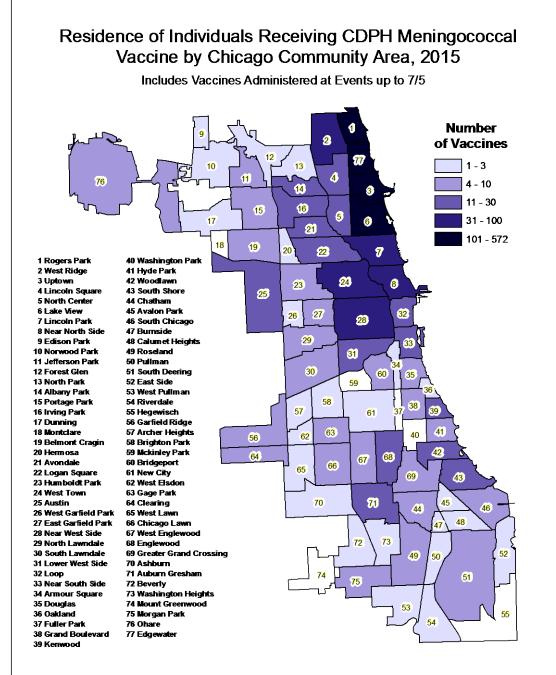


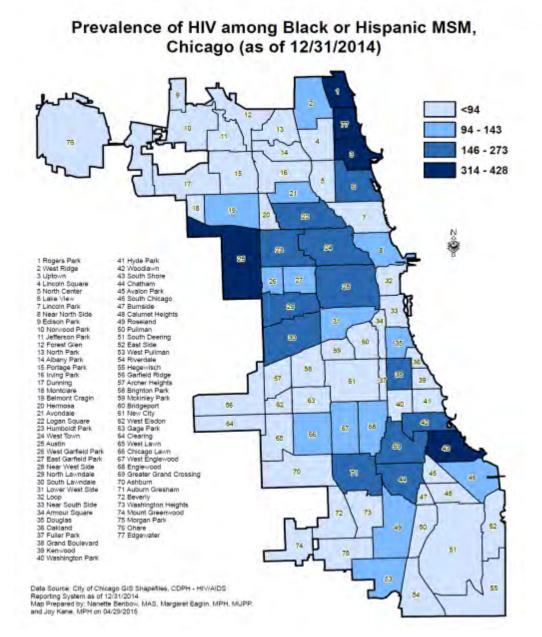
# **Engagement of Community-Based Partner Organizations**

- HIV/MSM providers
- STI clinics
- Community-based organizations (non-clinical)
- LGBT Aldermen's Caucus
- African American Aldermen's Caucus
- Gyms, bars/clubs, health fairs, community events
- House Ball networks





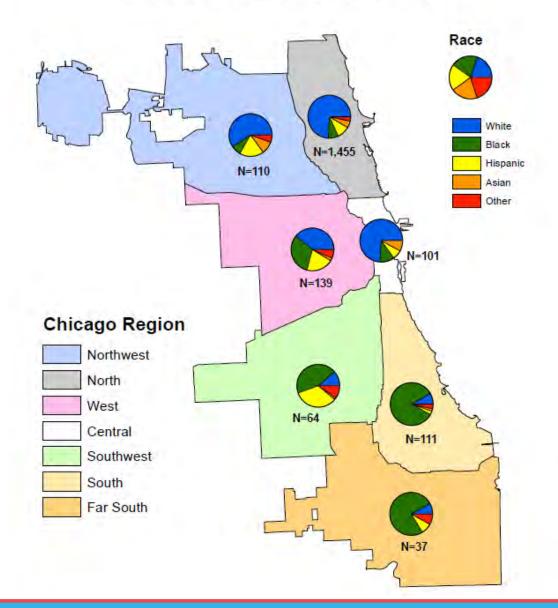




City of Chicago GIS Shapefiles, HIV/AIDS reporting system as of 12/31/14; map prepared by Nanette Benbow, MAS, Margaret Eaglin, MPH, MUPP, Joy Kane, MPH 4/29/15

## Race/Ethnicity of Individuals Receiving CDPH Meningococcal Vaccine by Chicago Region, 2015

Includes Vaccines Administered at Events up to 07/05



Immunizations Program preliminary data, Map prepared by Whitney Clegg, MPH, CSTE Fellow, IDPH, 8/14/15

# Pharmacy Participation in Vaccination Campaign

- Walgreens provides no-cost conjugate vaccine to uninsured/underinsured persons aged 14-55 years at 24 sites in Chicago
  - List of sites at <u>www.cityofchicago.org/health</u>
- Pharmacists can only administer licensed formulations (cannot administer conjugate vaccine to +55 population)

## Second Dose for People Living With HIV

- HIV-positive individuals require 2 doses of meningococcal vaccine, give 8 weeks apart
- Many vaccinated early in the outbreak now due for second dose
  - 38 doses of CDPH vaccine reported as 2<sup>nd</sup> dose
  - Providers: Estimate needed numbers for 2<sup>nd</sup> dose and reorder now
  - Providers/CBO's: Disseminate messaging about 2<sup>nd</sup> dose for people living with HIV

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## **Meningococcal Vaccination Survey**



#### CHICAGO DEPARTMENT OF PUBLIC HEALTH

To assess the response to the Chicago Department of Public Health (CDPH) Meningococcal Vaccination Campaign targeting men who have sex with men, CDPH is collecting information from all medical providers in Chicago providing services to HIV positive patients. We greatly appreciate your participation in this survey regarding meningococcal vaccination activities at your clinical site.

1	First	name	of	person	comp	leting	forn

Last name of person completing form

2 Name of Clinic

3 Clinic phone number (xxx-xxx-xxxx)

4 Clinic zip code

5 How would you best describe your clinic?

Primary Care and HIV clinic HIV clinic only

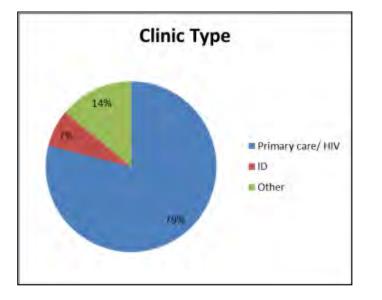
Other

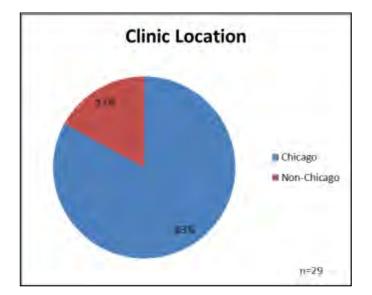
6 What is the total number of HIV positive patients seen in your clinic?

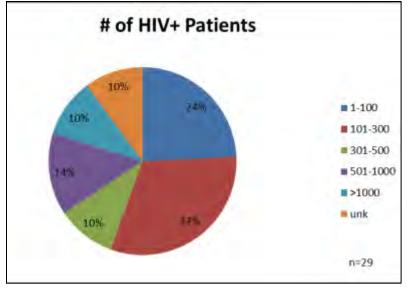
7 What is the percentage breakdown of your HIV positive patients by race?

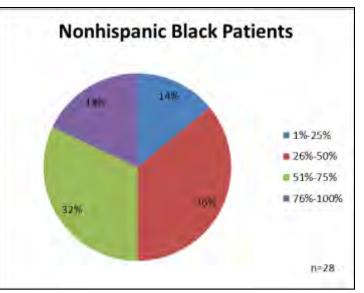
	0%	1%-25%	26%-50%	51%-75%	76%-100%
Non-Hispanic White	0	0	0	0	0
Non-Hispanic Black	0	0	0	0	0
Asian	0	0	0	0	0
Hispanic	. 0 .		- Q	0.	0.

# **Clinic Characteristics (n=29)**



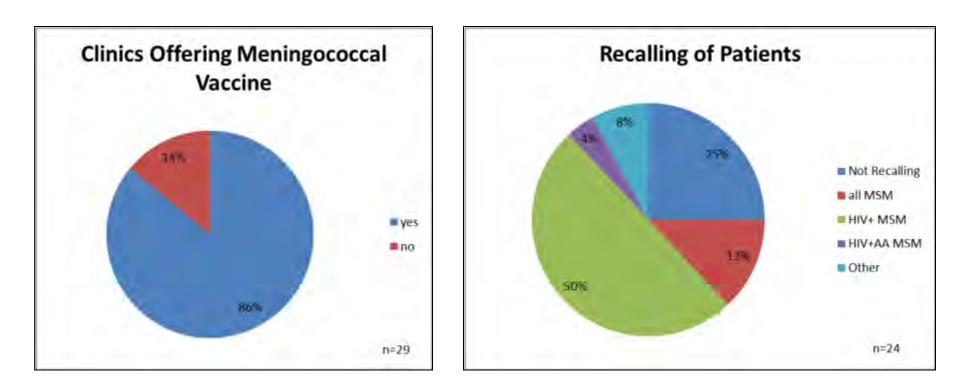




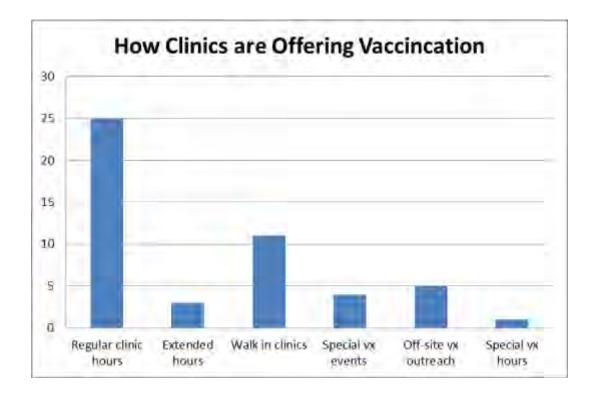


CDPH Providers Survey data, Graphics prepared by Alexandra Gagner, MPH, CD Program, 8/7/15

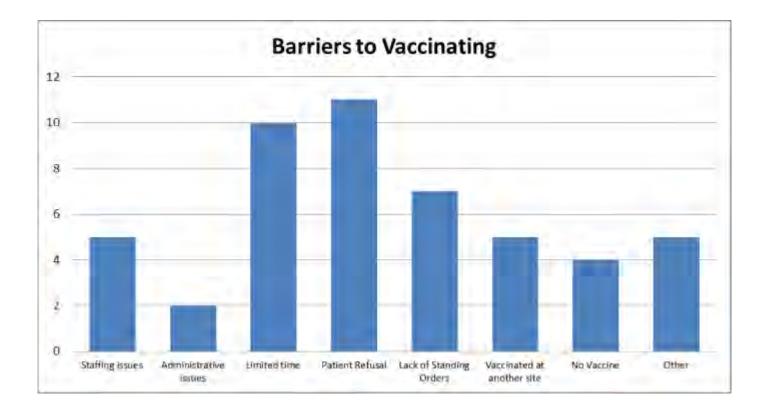
## **Vaccination Practices**



## How Clinics are Offering Vaccination



## **Barriers to Vaccinating**



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## How to Order Meningococcal Vaccine from CDPH

 CDPH Immunization Program will provide meningococcal vaccine for patients that meet the CDPH vaccination recommendation, regardless of insurance status

 Contact Kevin Hansen at 312-746-9330 or via email at <u>kevin.hansen@cityofchicago.org</u>

# **Standing Orders for Adult Meningococcal Vaccine**

## Standing Orders for Administering Meningococcal Vaccine to Adults

**Purpose:** To reduce morbidity and mortality from meningococcal disease by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

**Policy:** Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

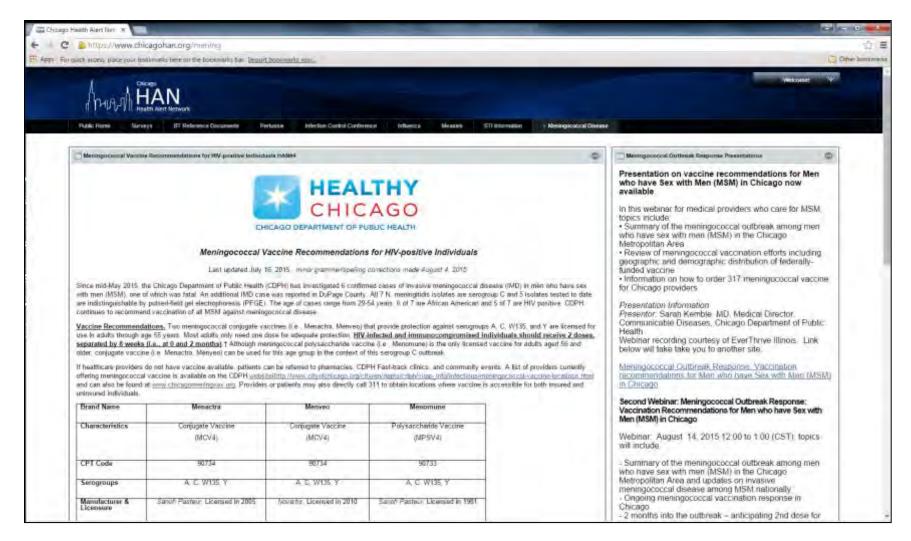
#### Procedure

- 1. Identify adults in need of vaccination against meningococcal disease based on any of the following criteria:
  - a. First-year college student, age 19 through 21 years, living in residence hall, and lacking documentation of receipt of quadrivalent meningococcal conjugate vaccine (MCV4) at age 16 years or older.
  - b. Anticipated travel to a country in the "meningitis belt" of sub-Saharan Africa or other location of epidemic meningococcal disease, particularly if contact with the local population will be prolonged
  - c. Diagnosis of anatomic or functional asplenia, including sickle-cell disease
  - d. Diagnosis of persistent complement component deficiency (an immune system disorder)
  - e. Employment as a microbiologist with routine exposure to isolates of N. meningitidis
  - f. Anticipated travel to Mecca, Saudi Arabia, for the annual Hajj
  - g. Military recruits
  - h. History of receiving either MCV4 or meningococcal polysaccharide vaccine (MPSV4: Menomune [sanofi]) at least 5 years earlier and having continued risk for infection (e.g., living in or recurrent travel to epidemic disease areas).
- 2. Screen all patients for contraindications and precautions to meningococcal vaccine:
  - a. **Contraindications:** a history of a serious allergic reaction (e.g., anaphylaxis) after a previous dose of meningococcal vaccine or to a meningococcal vaccine component. For information on vaccine components, refer to the manufacturer's package insert (www.immu-nize.org/packageinserts) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
  - b. Precautions: moderate or severe acute illness with or without fever
- 3. Provide all patients with a copy of the most current federal Vaccine Information Statement (VIS). You must document in the patient's medical record or office log, the publication date of the VIS and the date it was given to the patient. Provide non-English speaking patients with a copy of the VIS in their native language, if available and preferred; these can be found at www.immunize.org/vis.
- 4. For adults ages 55 years and younger, administer 0.5 mL MCV4 via the intramuscular route (22–25g, 1–1½" needle) in the deltoid muscle. (Note: a 5%" needle may be used for patients weighing less than 130 lbs [<60kg] for injection in the deltoid muscle only if the subcuta-

## Promoting Meningococcal Vaccination Among MSM

- Ensure all office staff (front desk to back office) aware of IMD and how severe it can be
- Post informational materials
- "You don't have to be doing anything bad to get this disease"
- Patient call-ins, emails

## Chicago Health Alert Network (HAN)



# **Acknowledgments**

- CDPH Programs:
  - Communicable Diseases
  - Immunization
  - STI
  - HIV
  - Emergency Preparedness
  - Quenjana Adams
  - Vilma Alicea
  - Saul Ayala
  - Nanette Benbow
  - Ramona Bhatia
  - Stephanie Black
  - Corey Blum
  - Dawn Broussard
  - Maribel Chavez-Torres
  - Margaret Eaglin
  - Donna Feaster
  - Julio Fernandez
  - Alexandra Gagner
  - Evelyn Green
  - Edgar Gutierrez
  - Charlayne Guy
  - Joanne Hall-Woods
  - Kevin Hansen
  - Karin Hearan

- Dwight Hunter
- Joy Kane
- Antonio King
- Diana La Porte
- Jesse Lava
- Jennifer Levy
- Laura Martel
- Loretta Miller
- Margaret Okodua
- Massimo Pacilli
- Donna Peace
- Damian Plaza
- Nik Prachand
- Brian Richardson
- Donovan Robinson
- Usha Samala
- Lorraine Schoenstadt
- Shamika Smith
- Laura Sparrow
- Patrick Stonehouse
- Cristina Villareal
- Christopher Widmer
- Marjani Williams
- Illinois Department of Public Health
  - Connie Austin
  - Whitney Clegg

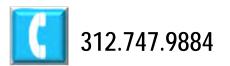
- Craig Connover
- Andrew Beron
- Robynn Leidig
- DuPage County Department of Public Health
  - Rashmi Chugh
  - Elizabeth Murphy
  - Colette Petit
- Cook County Department of Public Health
  - Demian Christiansen
  - Mabel Frias
- Centers for Disease Control and Prevention
  - Temi Folaranmi, CDC EIS Officer, MVPD Branch, NCIRD
  - Manisha Patel, MVPD Branch
- Chicago-area HIV/MSM/STI clinical providers
- Community Partners
- Walgreens
  - Denise Scarpelli, Regional Healthcare Director of Chicago







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www.CityofChicago.org/Health