



Enemy at the Gates: Lessons from Chicago's 2017 Hepatitis A Response

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Objectives



- Describe the evolution of Chicago's 2017 Hepatitis A response and review the epidemiology of ongoing nationwide Hepatitis A outbreaks.
- Understand the role of infection control, community partnership, and incident command in stopping Hep A transmission.
- Identify ongoing strategies to prevent future Hepatitis A outbreaks in Chicago.

What Are the Symptoms of Hepatitis A?



Fever



Fatigue



Nausea



Loss of appetite



Jaundice
(yellowing of the
skin or eyes)



Stomach
pain



Vomiting



Dark urine,
pale stools, and
diarrhea

Hep A spreads easily

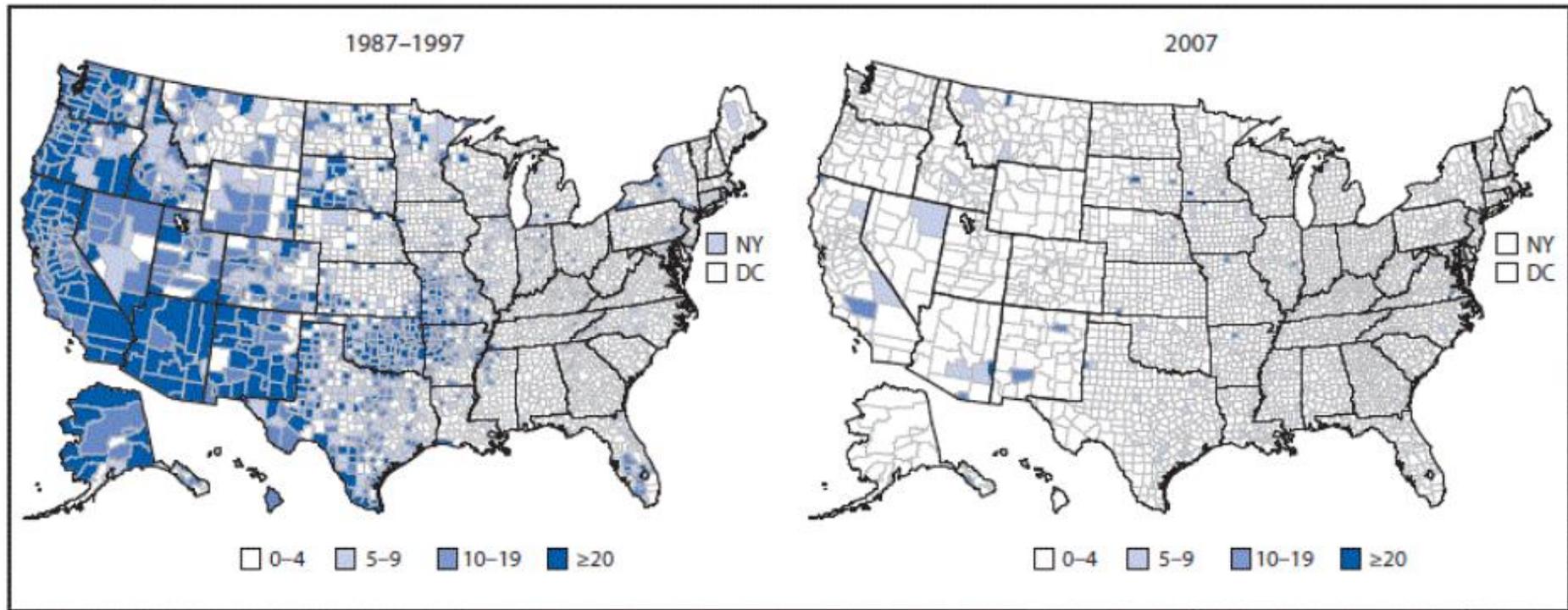
- Person to person transmission = Fecal-Oral
- Up to 70% attack rate
- Incubation period: **15-50 days** (average: 28d)
 - Contagious 1-2 weeks prior to onset of symptoms (jaundice or elevated liver enzymes)
- Still shed in stool for up to 7 days after onset
 - Longer for infants and children
 - Can live on surfaces for months!

Hep A Quick Facts

- **Diagnosis:** Positive HAV IgM antibody
- **Reporting:** within 24 hours (312-743-9000)
- **Treatment:** supportive
- **Isolation:** Contact precautions until 1 wk after symptom onset



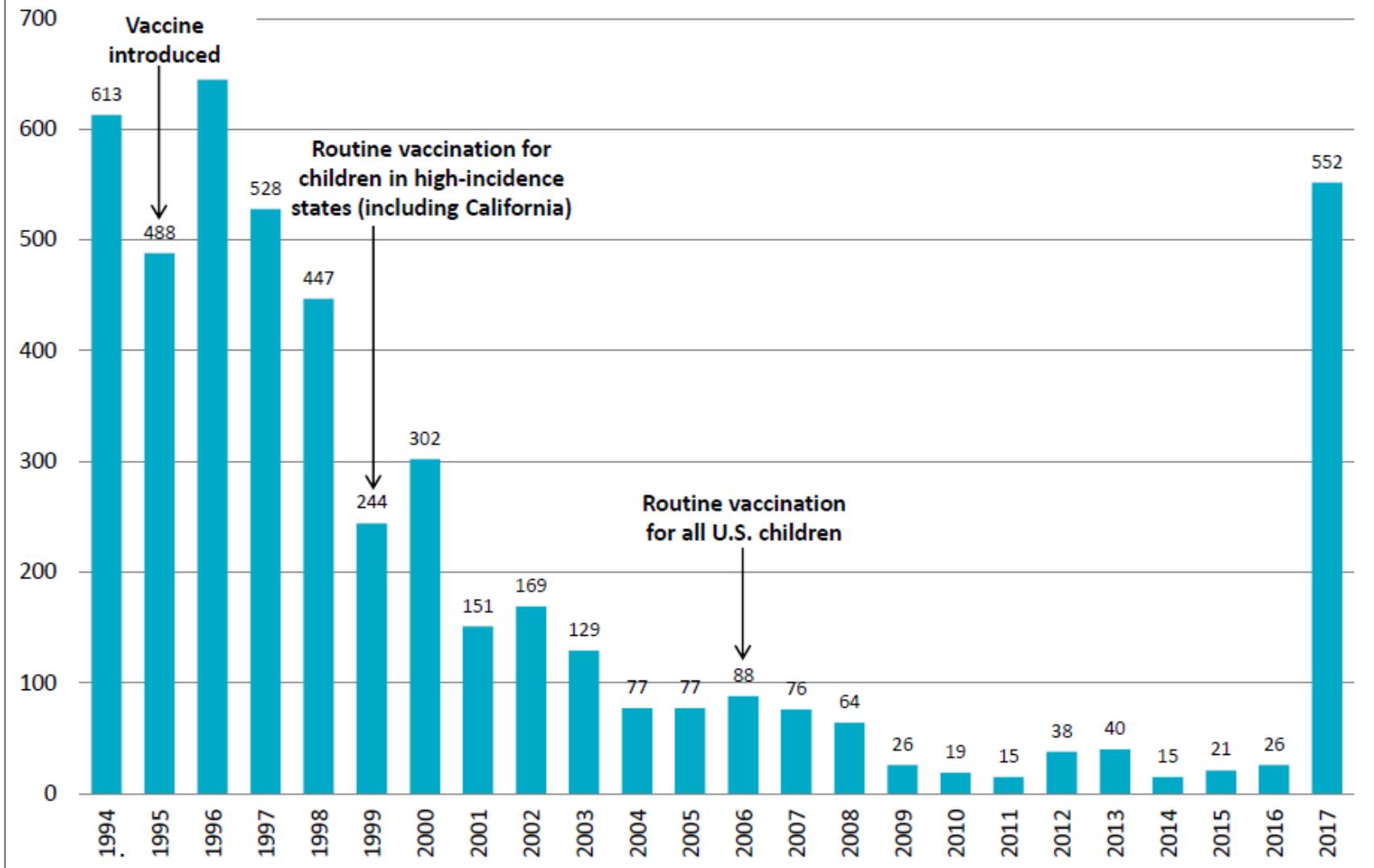
Incidence* of reported acute hepatitis A cases — National Notifiable Diseases Surveillance System, United States, 1987–1997[†] (pre-vaccine) and 2007



* Rate per 100,000 population.

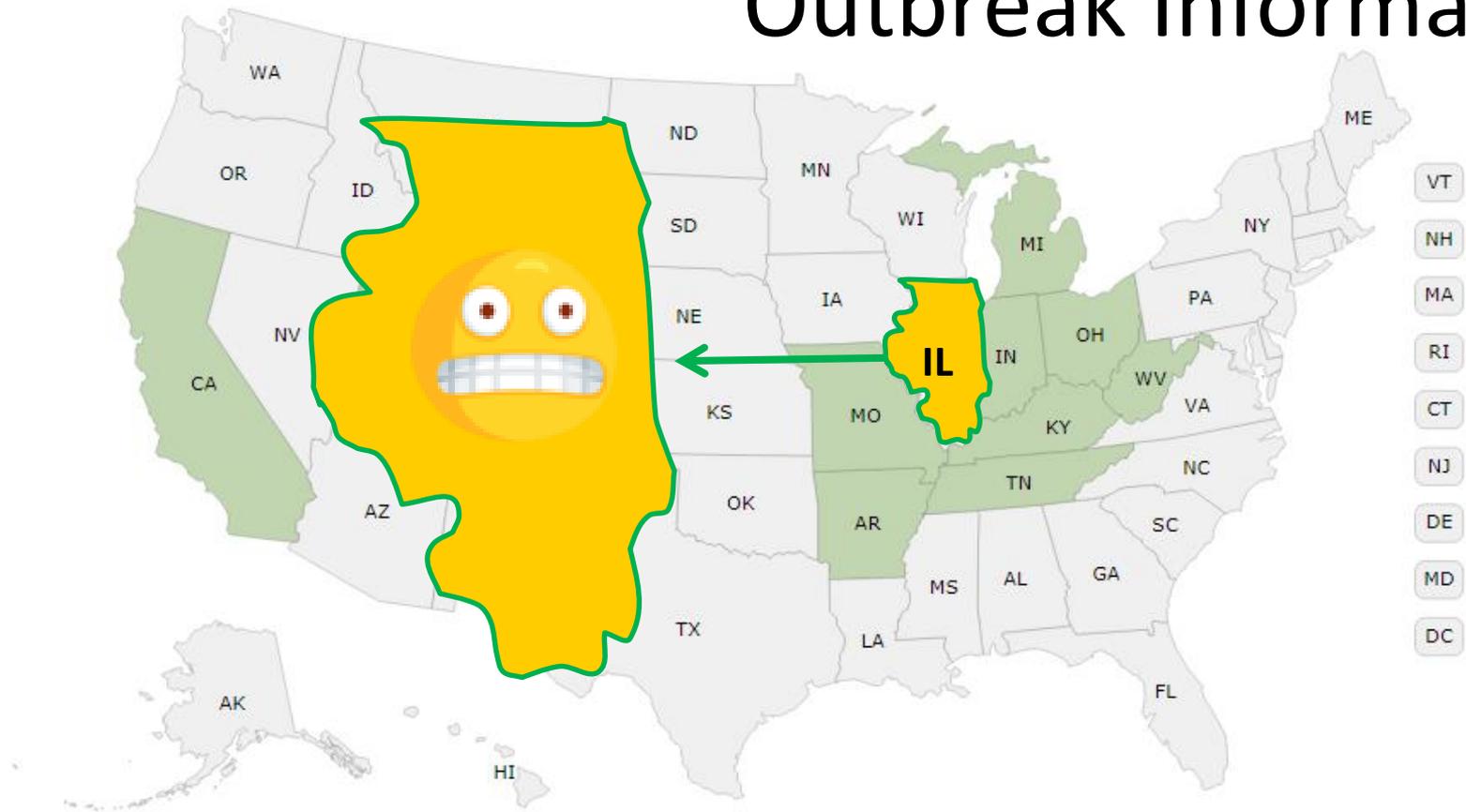
[†] Annual average incidence.

All Hepatitis A Cases, San Diego County 1994 - 2017*



*Year to date. Prepared by County of San Diego, Health & Human Services Agency, Public Health Services, Epidemiology & Immunization Services, 10/26/17

CDC State Specific Hepatitis A Outbreak Information



Select a State ▼

Go



Characteristics of Confirmed Acute Hepatitis A Cases, Chicago 2014-2018

	2014	2015	2016	2017	2018
Total Confirmed Cases^b, n	38	10	17	34	16
Demographics					
Male, n (%)	24 (63.2)	7 (70.0)	11 (64.7)	27 (79.4)	11 (68.8)
Median Age, years (range)	38 (13-83)	31 (20-56)	29 (16-73)	36 (21-62)	40 (20-64)
African-American, n (%)	4 (10.5)	1 (10.0)	5 (29.4)	8 (23.5)	2 (12.5)
Risk Factors					
MSM ^c , n (%)	5 (20.8)	1 (14.3)	1 (9.1)	15 (55.6)	2 (18.2)
IVDU ^d , n (%)	1 (2.6)	0 (0.0)	0 (0.0)	6 (17.7)	0 (0.0)
Homeless, n (%)	1 (2.6)	0 (0.0)	0 (0.0)	5 (14.7)	0 (0.0)
Domestic Travel, n (%)	6 (15.8)	2 (20.0)	1 (5.9)	7 (20.6)	2 (12.5)
International Travel, n (%)	12 (31.6)	2 (20.0)	8 (47.1)	6 (17.7)	6 (37.5)
Ate raw shellfish, n (%)	11 (29.0)	1 (10.0)	2 (11.8)	10 (29.4)	3 (18.8)
Outcomes					
Hospitalized, n (%)	19 (50.0)	4 (40.0)	10 (58.8)	17 (50.0)	10 (62.5)
Deaths, n (%)	2 (5.3)	0 (0.0)	1 (5.9)	1 (2.9)	1 (6.3)

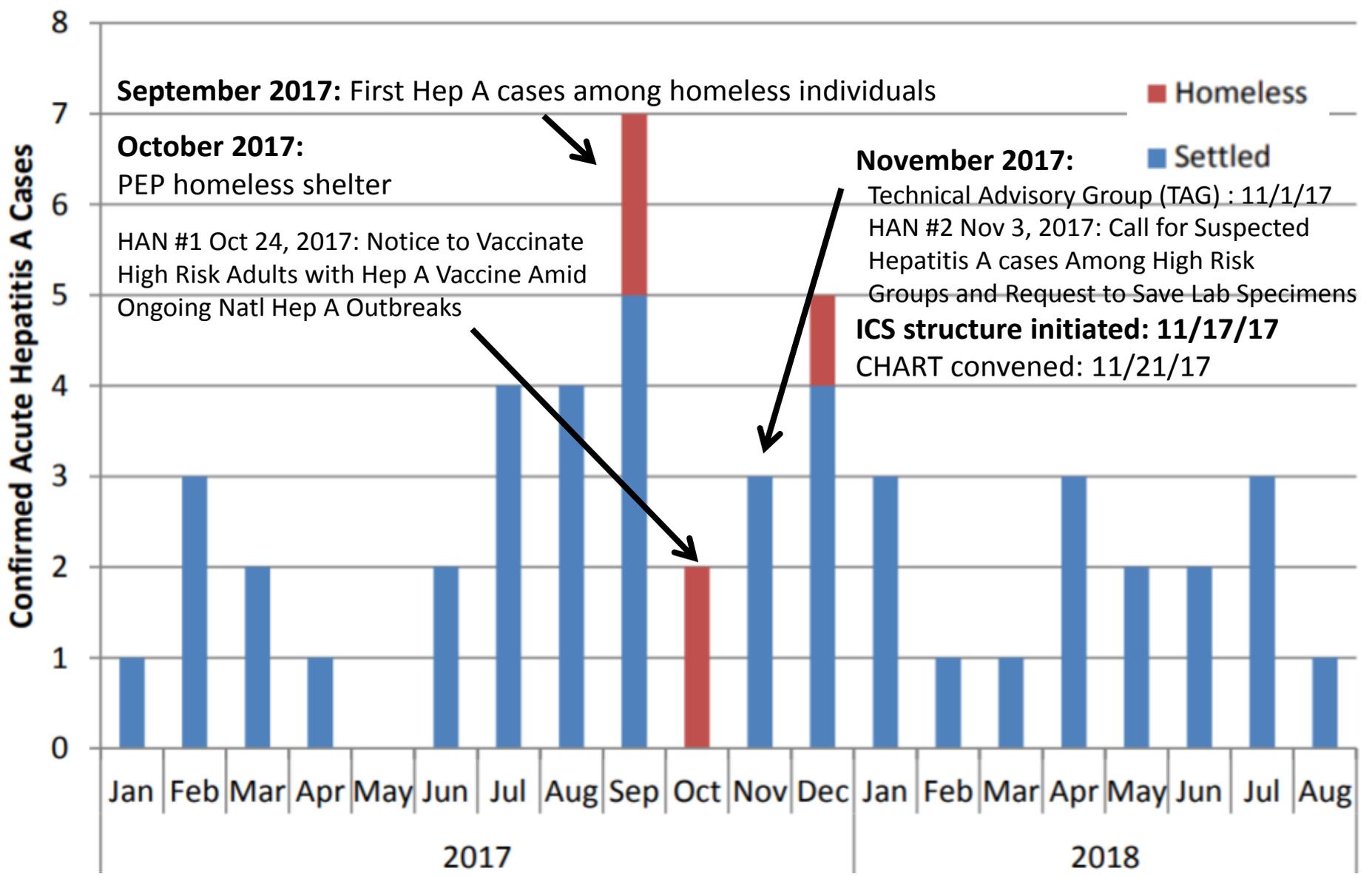
a Data source: Illinois National Electronic Disease Surveillance System (I-NEDSS)

b Meets the CSTE clinical case definition and is laboratory confirmed: Immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) positive

c Men who have sex with men; data includes only male cases

d Intravenous drug user

Frequency Distribution of Chicago's Confirmed Acute Hepatitis A Cases in 2017-2018^a



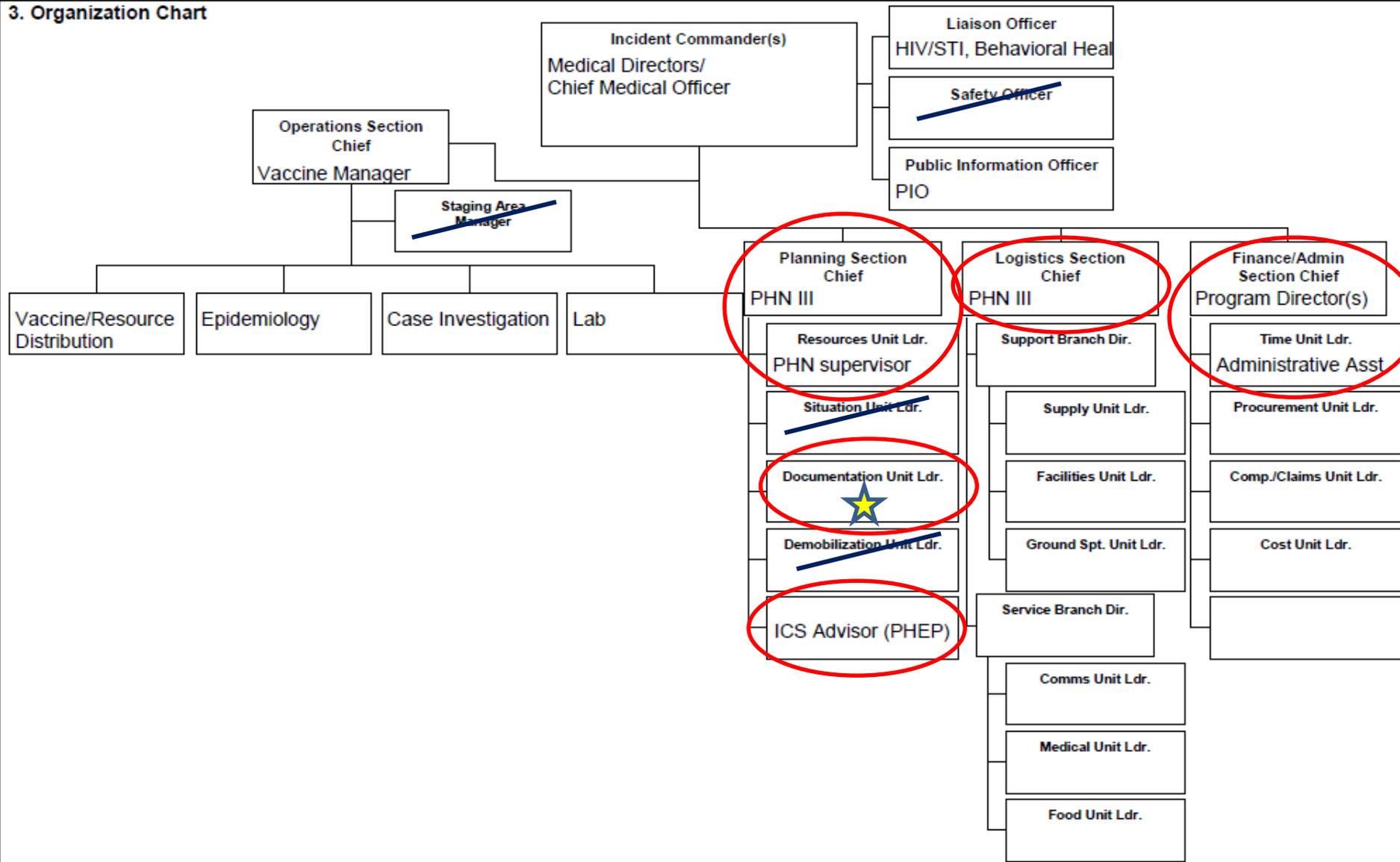
^a Data source: Illinois National Electronic Disease Surveillance System (I-NEDSS)

INCIDENT ORGANIZATION CHART (ICS 207)

1. Incident Name:
HAV Response

2. Operational Period: Date From: 11/17/2017 Date To: 12/31/2017
Time From: Time To:

3. Organization Chart



Hep A Outbreak Objectives

- **Prevent a larger outbreak**
- Define and redefine high risk populations
- Aggressively vaccinate high risk populations
- Educate community [providers/public]
- Improve reporting of hepatitis A cases
- Investigate cases quickly to identify opportunities for post-exposure prophylaxis
- Facilitate genotyping of confirmed cases

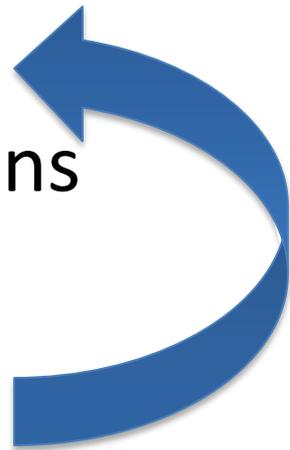


CHART: Chicago Hepatitis A Response Team



- INTERNAL: Instituted Incident Command Structure early with lessons from MI
 - Close and frequent contact between programs
 - Coordinate post-exposure prophylaxis, vaccine supply, public information, education
- EXTERNAL: Convened community partners and re-engaged existing relationships
 - got word out quick about how hepatitis A spreads, who is at risk, vaccination and good handwashing.
 - Tried to keep engaged and updated

Community Partnerships

- Homeless shelters and advocacy organizations
 - DFSS
 - Mayor's Office Interagency homelessness taskforce
- Drug treatment centers/Needle exchanges
- MSM focused healthcare organizations
- HIV/AIDS delegate agencies
- Correctional facilities and Transitional facilities
- Hospitals
- Chicago Park District
- Greater Chicago Food Depository

Estimates of high risk populations in Chicago

- Homeless:
 - 5,657¹ (2017)
 - 82,212² (2015)
- Injection drug users: 45,410³ (2002)
- MSM: 52,000⁴ (2010)

One List: Individuals/Households Experiencing Homelessness

9,379

Number Leaving
Homelessness in September
2018

362

Number Entering
Homelessness in September
2018

341

Available Permanent Housing
Units

854

Average Length of Time in
Chicago's Homeless System for
Persons Currently Experiencing
Homelessness

212 days

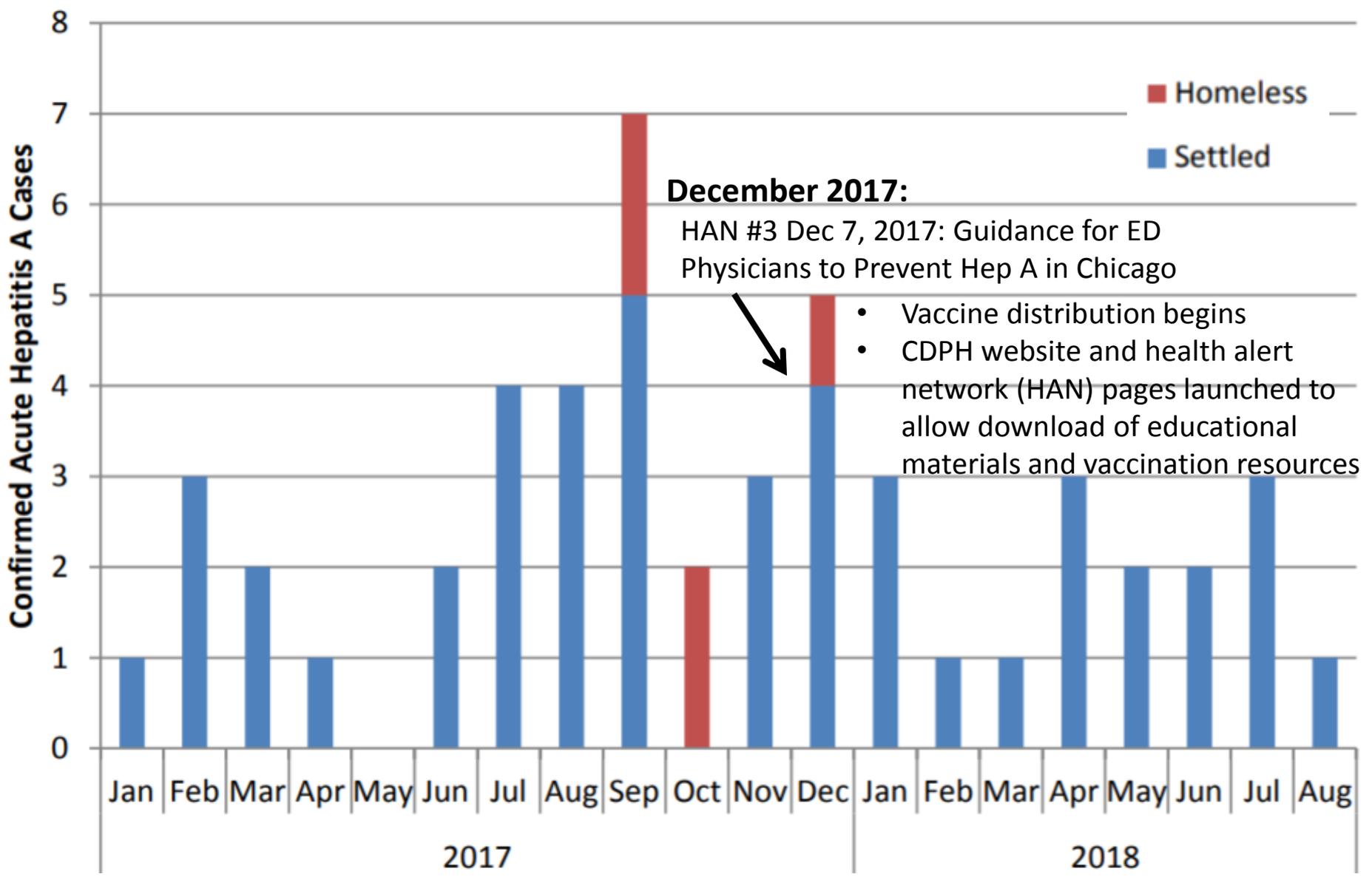
1 https://www.cityofchicago.org/content/dam/city/depts/fss/supp_info/Homeless/2017PITSummaryReportFinal.pdf

2 <http://6624-presscdn-0-27.pagely.netdna-cdn.com/wp-content/uploads/2017/04/CCH-Homeless-Count.April-2017.pdf>

3 Friedman et al. HIV Among Injection Drug Users in Large US Metropolitan Areas, 1998. Journal of Urban Health. 2005.82;3.

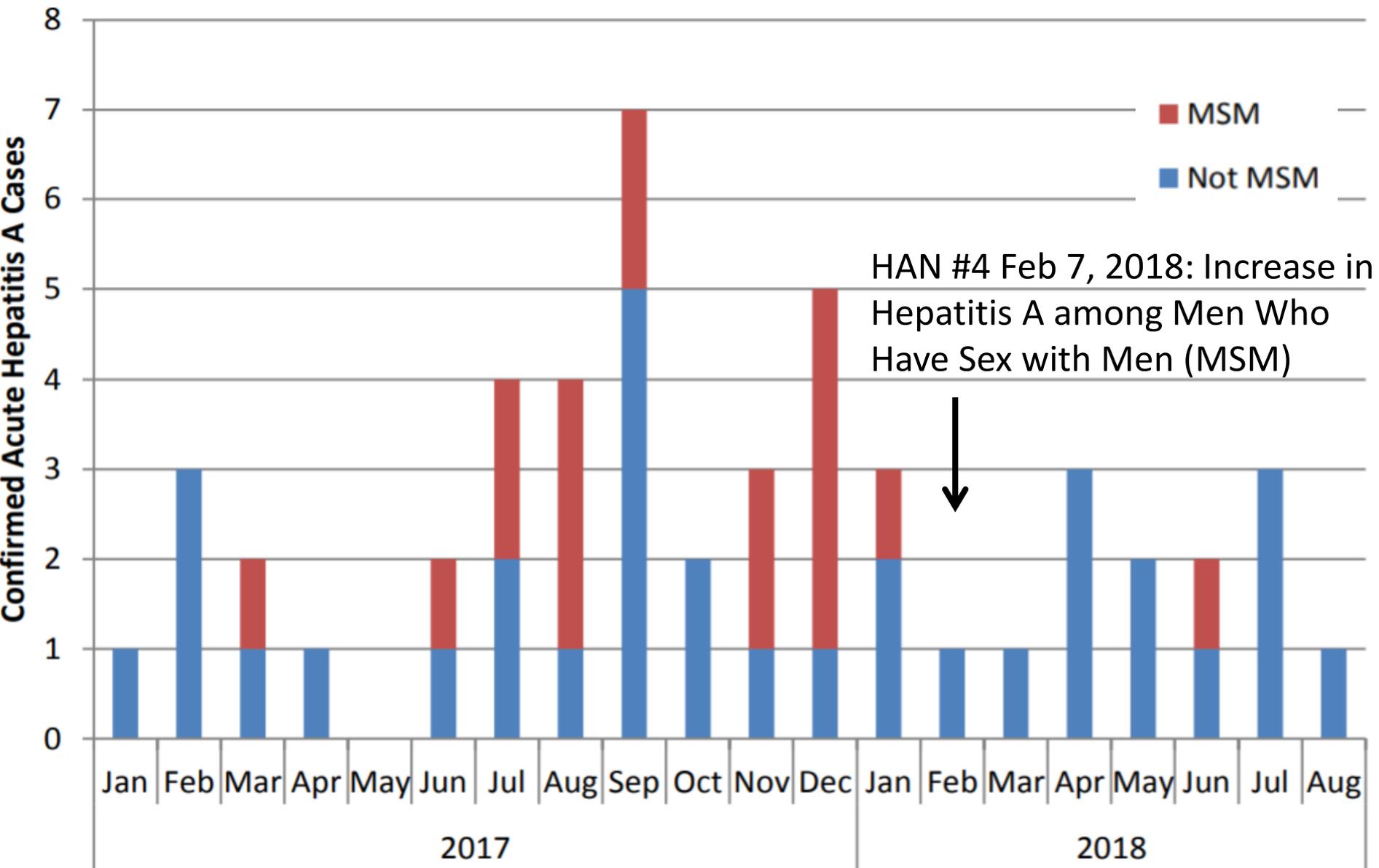
4 Purcell et al. Estimating the Population Size of Men Who Have Sex with Men in the United States to Obtain HIV and Syphilis Rates. Open AIDS J. 2012; 6: 98–107.

Frequency Distribution of Chicago's Confirmed Acute Hepatitis A Cases in 2017-2018^a



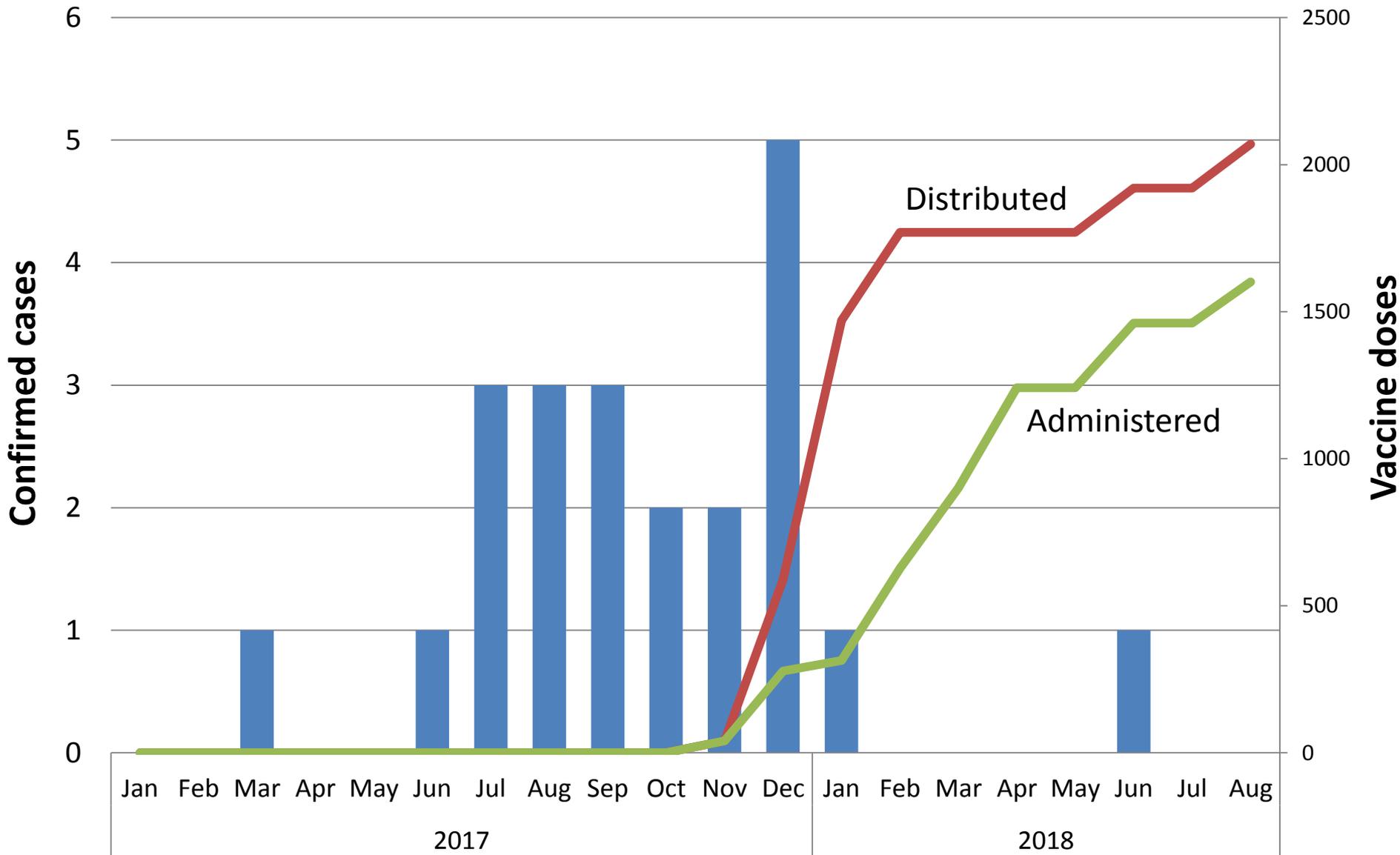
^a Data source: Illinois National Electronic Disease Surveillance System (I-NEDSS)

Frequency Distribution of Chicago's Confirmed Acute Hepatitis A Cases in 2017-2018^a



^a a Data source: Illinois National Electronic Disease Surveillance System (I-NEDSS)

Proposed Outbreak Associated Hepatitis A Cases (22) and Vaccination Campaign, Chicago 2017-2018



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Chicago Hep A vaccination coverage

2015 National Health Interview Survey

Only 9% of adults aged ≥ 19 years have received
 ≥ 2 doses

- Travelers: 16%
- Non-travelers: 5.4%
- Chronic liver condition: 8.6%
- MSM?

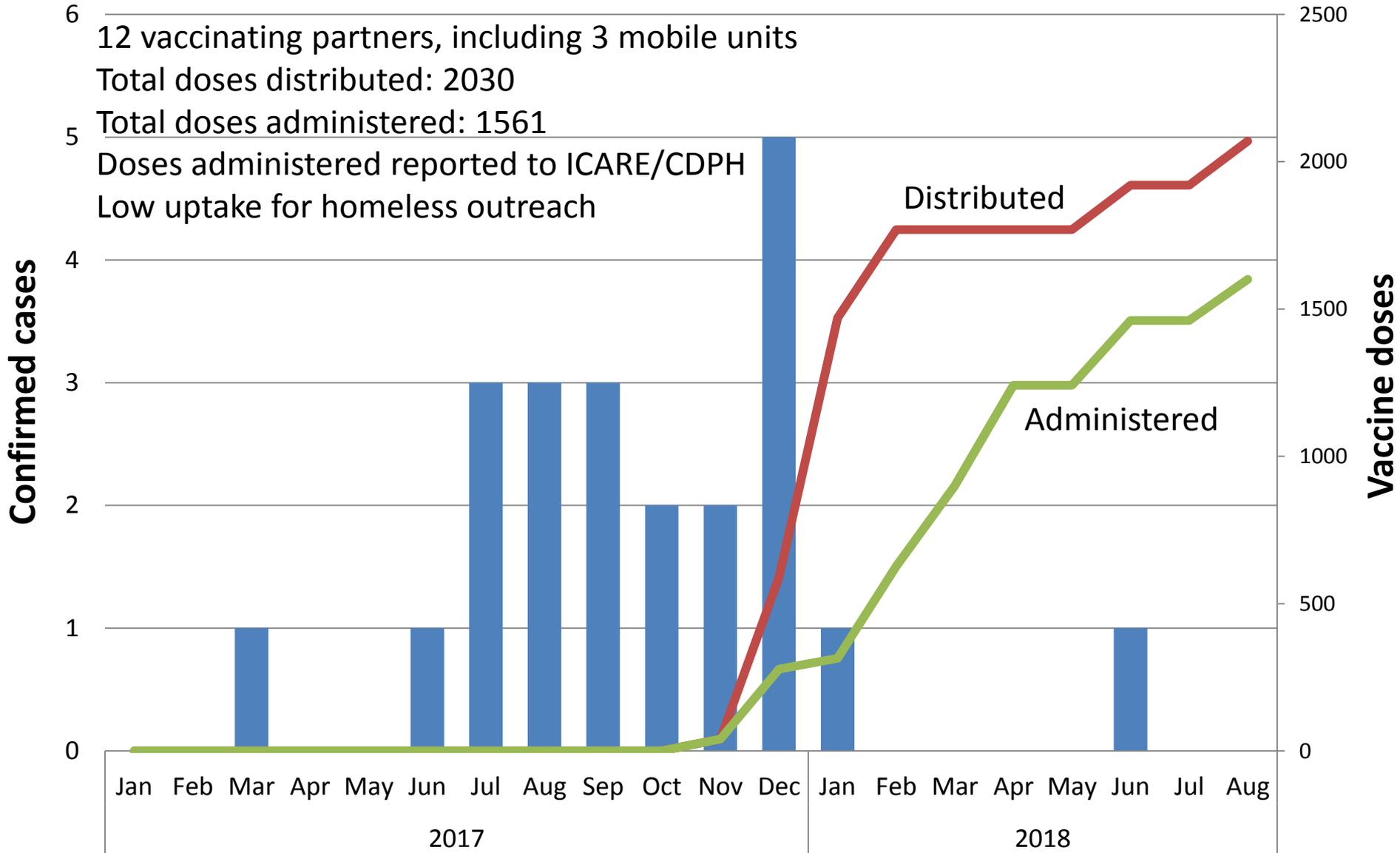
By age 3:
90% for 1 dose
60% for 2 doses

Aggressive vaccination to prevent a larger outbreak: Recommendations

Vaccinate all individuals who are homeless or living in transient or unstable housing

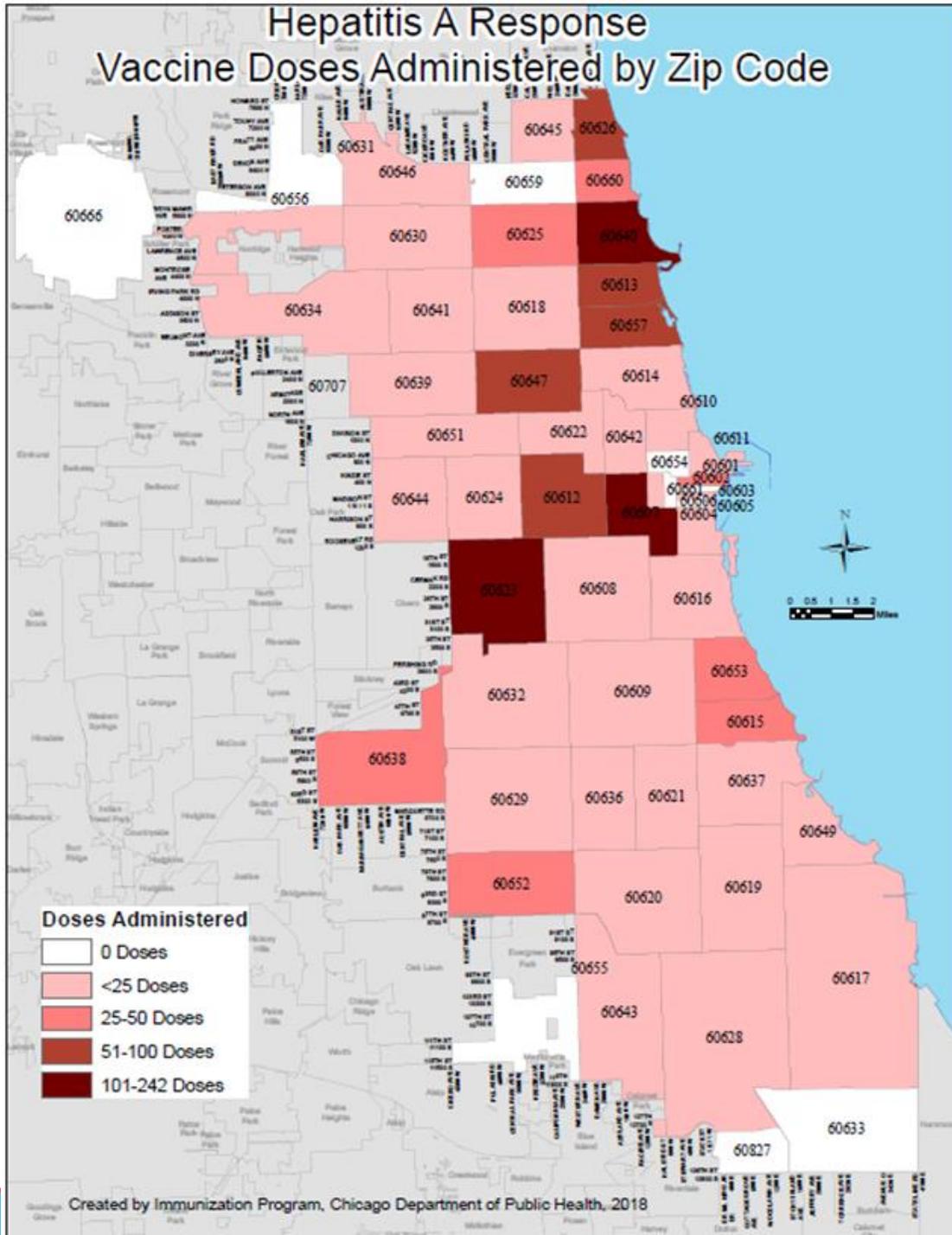
- Homeless services providers and volunteers
- Public safety workers, behavioral health, and selected healthcare workers who work with at-risk
- Correctional facility inmates on intake
- Current ACIP recommended groups: MSM, Intravenous and non-intravenous illicit drug users, chronic liver disease, travelers, children, clotting factor disorders, contacts of international adoptees

Proposed Outbreak Associated Hepatitis A Cases (22) and Vaccination Campaign, Chicago 2017-2018

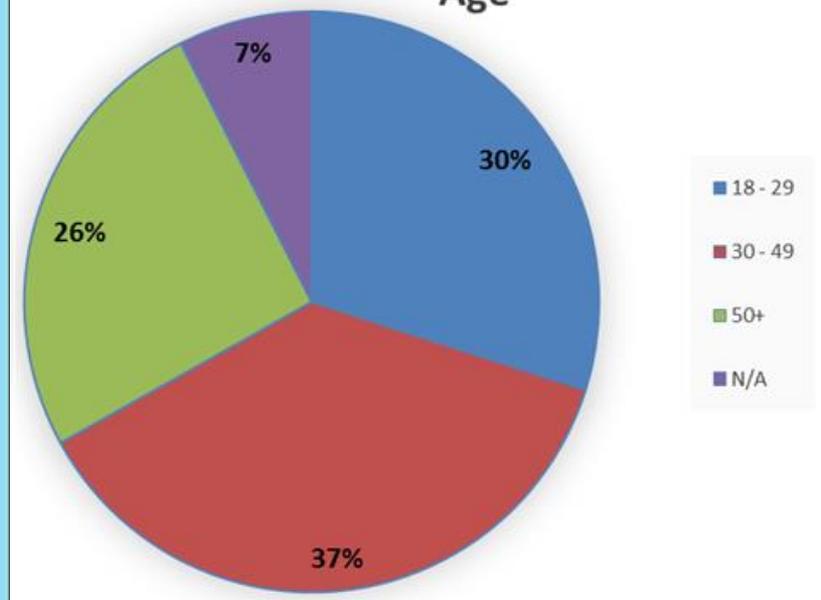


Hepatitis A Response

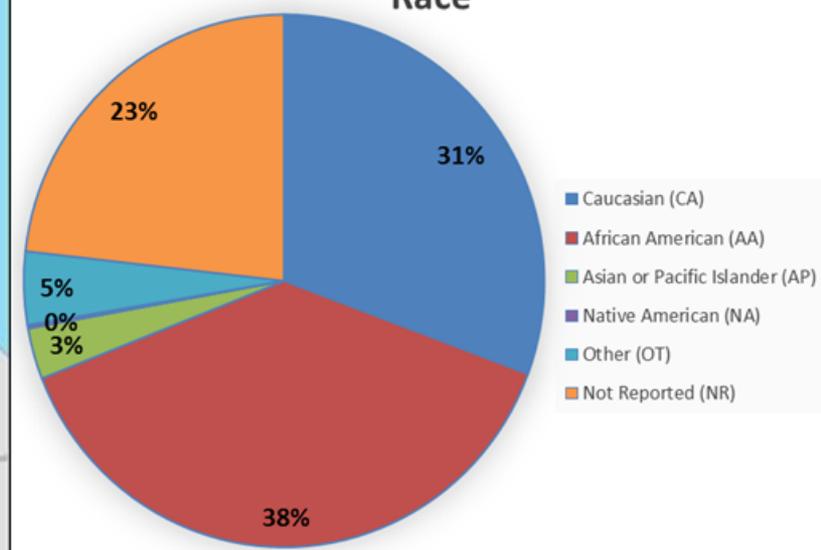
Vaccine Doses Administered by Zip Code



Hep A Vaccine Doses Administered by Age



Hep A Vaccine Doses Administered by Race





Health Alert



Rahn Emanuel, Mayor

Chicago Health Alert Network

Julie Y. Morita, MD, Commissioner

January 31, 2018

Increase in Hepatitis A among Men Who Have Sex with Men (MSM)

SUMMARY AND ACTION ITEMS

- An increased number of cases of hepatitis A occurred among men who have sex with men (MSM) in Chicago in 2017 compared to previous years.
- This increase is occurring in the context of continued surveillance for hepatitis A in Chicago among persons who are homeless and/or use illicit (injection and non-injection) drugs.
- All MSM should be offered hepatitis A vaccine, which is the best method for preventing hepatitis A infection.

Background: In 2017, 33 total cases of hepatitis A (HAV) were confirmed. Fifteen HAV cases were confirmed among MSM (58% of male cases) compared to 1 per year in 2015 and 2016. Twelve cases occurred among MSM who were neither homeless nor actively using drugs. So far in 2018, one additional MSM case has been confirmed and 2 investigations are pending. This increase has occurred in the setting of several large hepatitis A outbreaks across the U.S. in individuals who are homeless, illicit drug-users and MSM. HAV outbreaks specifically in MSM have been identified in New York City, LA county and Colorado. MSM are recognized to be at higher risk for infection with HAV. The Advisory Committee on Immunization Practices (ACIP) has recommended [routine immunization of MSM](#) with 2 doses of hepatitis A vaccine since 1996. Guidance on adult dosing of hepatitis A vaccine can be found [here](#).

Vaccine availability: CDPH has partnered with Howard Brown Health Center to make hepatitis A vaccine available to high-risk individuals who are uninsured or unable to pay. If you cannot provide hepatitis A vaccine or do not currently have stock of hepatitis A vaccine, please refer individuals to any of the following [Howard Brown locations](#). Patients can call to make an appointment at a specific location or present during hours of operation without an appointment and request hepatitis A vaccination.

Howard Brown Health Clark 6500 N. Clark St. Chicago, IL 60626 773.388.1600	Howard Brown Health 63rd St. 641 W. 63rd St. Chicago, IL 60621 773.388.1600
Howard Brown Health Sheridan 4025 N. Sheridan Road Chicago, IL 60613 773.388.1600	Howard Brown Health at TPAN 5537 North Broadway Chicago, IL 60640 773.388.1600
Howard Brown Health Halsted 3245 N. Halsted Street Chicago, IL 60657 773.388.1600	Howard Brown Health Diversey 2800 N. Sheridan, Suite 211 Chicago, IL 60657 773.472.7412
Howard Brown Health 55th St. 1525 East 55th Street Chicago, IL 60615 773.388.1600	Howard Brown Health at Thresholds South 734 W 47th Street Chicago, IL 60609 773.388.1600
Broadway Youth Center (ages 12-24 years only) 4009 N. Broadway Chicago, IL 60613 773.935.3151 Walk-in available: Mon/Tues/Thurs/Fri: Noon-7pm	For additional questions about the hepatitis A vaccination program at Howard Brown Health Center, please contact Kristin Kegllovitz at 773-572-8357 or kristink@howardbrown.org .

- Our walk-in clinics could not handle additional walk-in volume so had to lean on partners
- One vaccinating partner acted as walk-in referral center
- Promoted via Health Alert and patients could call 311 for info

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EDUCATE

- General fact sheets
 - Get the Facts: Hepatitis A
 - Handwashing guidance (PHEP program created)
- Special guidance
 - food handlers, infrequent (holiday) volunteers, environmental cleaning guidance
- Distributed to date:
 - 524 Posters
 - 24,555 Palmcards
 - 4801 Hygiene kits donated by BCBS



Hepatitis A Disinfection Guidelines

Hepatitis A is a liver infection caused by the hepatitis A virus. Highly contagious, the hepatitis A virus is transmitted by the fecal-oral route, either through person-to-person contact or consumption of contaminated beverages. Contamination can occur when infected persons do not wash their hands properly in a bathroom and then touch other objects or food items. Surfaces that are frequently touched should be sanitized often. These surfaces include:

- Faucets
- Sinks
- Toilets and Commodes
- Light Switch Plates
- Kitchen Surfaces
- Phones
- Tables and Chairs
- High Chairs
- Doorknobs
- Keyboards
- Wheelchairs and Walkers
- Linens and Bedding
- Refrigerators
- Ranges
- Refrigerators
- Ice Makers

Disinfection for Exposed Surfaces

Chlorine Bleach: Mix and use the chlorine solution promptly. Allow 1 minute of contact time and then rinse with water. Replace bottles of opened bleach every 30 days. Discard any unused diluted mixtures.

5000 ppm: 1 and 2/3 cups bleach in 1 gallon water. Use for stainless steel, food/mouth contact items, tile floors, nonporous surfaces, counters, sinks and toilets.

Steps to Clean

- Block off area immediately
- Put on personal protective equipment (PPE) including two sets of gloves, mask and gown.
- Clean up visible debris using disposable absorbent material (paper towels or other type of disposable cloths). Handle contaminated material as little as possible and with minimal agitation to reduce aerosolization.

Get the Facts: Hepatitis A

Why should you care about hepatitis A?

If a person has an infection with the hepatitis A virus, it can easily spread from person-to-person and cause liver disease lasting a few weeks to a serious illness lasting many months. In some cases, people can die because of hepatitis A.

How does hepatitis A spread?

- Touching objects or eating food that someone with hepatitis A infection handled
- Having sex with someone who has a hepatitis A infection

What are the symptoms of hepatitis A?



Fever



Fatigue



Nausea



Loss of appetite



Jaundice
(yellowing of the
skin or eyes)



Stomach
pain



Vomiting



Dark urine,
pale stools, and
diarrhea

WHY SHOULD YOU CARE ABOUT HEPATITIS A?



IF A PERSON HAS AN INFECTION WITH THE HEPATITIS A VIRUS, IT CAN EASILY SPREAD FROM PERSON-TO-PERSON AND CAUSE LIVER DISEASE LASTING A FEW WEEKS TO A SERIOUS ILLNESS LASTING MANY MONTHS. IN SOME CASES, PEOPLE CAN DIE BECAUSE OF HEPATITIS A.

HOW DOES HEPATITIS A SPREAD?

- TOUCHING OBJECTS OR EATING FOOD THAT SOMEONE WITH HEPATITIS A INFECTION HANDLED
- HAVING SEX WITH SOMEONE WHO HAS A HEPATITIS A INFECTION

WHAT ARE THE SYMPTOMS?

IF YOU THINK YOU HAVE HEPATITIS A, SEE YOUR DOCTOR OR VISIT THE CLOSEST EMERGENCY ROOM. ALWAYS WASH YOUR HANDS WITH SOAP AND WATER AFTER GOING TO THE BATHROOM AND BEFORE PREPARING FOOD.



FEVER



FATIGUE



NAUSEA



LOSS OF APPETITE



JAUNDICE (YELLOWING OF THE SKIN OR EYES)



STOMACH PAIN



VOMITING



DARK URINE, PALE STOOLS & DIARRHEA

¿PORQUE DEBE IMPORTARLE LA HEPATITIS A?



SI UNA PERSONA ESTÁ INFECTADA CON EL VIRUS DE LA HEPATITIS A, PUEDE TRANSMITIRLO FÁCILMENTE DE PERSONA A PERSONA. LA HEPATITIS A CAUSA UNA ENFERMEDAD EN EL HÍGADO QUE PUEDE DURAR UNAS CUANTAS SEMANAS A MESES, CON EL TIEMPO CONVIRTIÉNDOSE EN UNA ENFERMEDAD MÁS SERIA. EN ALGUNOS CASOS, LAS PERSONAS PUEDEN MORIR DEBIDO AL VIRUS DE LA HEPATITIS A.

¿CÓMO SE TRANSMITE?

- TOCANDO OBJETOS O COMIENDO ALIMENTOS QUE ALGUIEN CON LA INFECCIÓN HEPATITIS A TOCO
- TENIENDO RELACIONES SEXUALES CON ALGUIEN QUE TIENE HEPATITIS A

¿CUÁLES SON LOS SÍNTOMAS?

SI USTED CREE QUE TIENE HEPATITIS A DEBIDO A ESTOS SÍNTOMAS, CONSULTE A SU MÉDICO O VISITE LA SALA DE EMERGENCIAS MÁS CERCANA. SIEMPRE LÁVESE LAS MANOS CON AGUA Y JABÓN DESPUÉS DE USAR EL BAÑO Y ANTES DE PREPARAR LA COMIDA.



FIEBRE



CANSANCIO



NAÚSEA



PÉRDIDA DE APETITO



ICTERICIA (ORACIÓN AMARILLENTO DE PIEL U OJOS)



DOLOR ESTOMACAL



VÓMITO



ORINA OSCURA, HECES BLANCAS, Y DIARRHEA

PROTECT YOURSELF FROM HEPATITIS A



1 Get vaccinated



2 Don't have sex with someone who has Hepatitis A infection



3 Use your own towels, toothbrushes and eating utensils



4 Don't share food, drinks or smokes with other people

TALK TO YOUR DOCTOR, CALL 311 OR VISIT CITYOFCHICAGO.ORG/HEPATITISA FOR MORE INFORMATION.

PREVENIR LA HEPATITIS A



1 Recibir la vacuna



2 No tener relaciones sexuales con alguien que este infectado con la Hepatitis A



3 No comparta toallas, cepillos dentales ni cubiertos



4 No comparta comida, bebidas o cigarrillos con otras personas

HABLE CON SU MÉDICO, LLAME AL 311 O VISITE WWW.CITYOFCHICAGO.ORG/HEPATITISA PARA OBTENER MÁS INFORMACIÓN.

Folding English/Spanish Palmscard

PROTECT YOURSELF FROM HEPATITIS A

- 

1
Get vaccinated!

/ /
- 

2
Always wash your hands with soap and water after going to the toilet & before preparing food.
- 

3
Don't share food, drinks, or pipes with other people.

ADAPTED FROM MATERIAL FROM THE COUNTY OF SAN DIEGO.

PROTÉJASE DE LA HEPATITIS A

- 

1
¡Vacúnese!

/ /
- 

2
Siempre lávese las manos con agua y jabón después de usar el baño y antes de preparar la comida.
- 

3
No comparta comida, bebidas o cigarrillos con otras personas.

ADAPTADO CON PERMISO DEL CONDADO DE SAN DIEGO. 

¿CUÁLES SON LOS SÍNTOMAS DE LA HEPATITIS A?

 FIEBRE	 CANSANCIO	 NÁUSEA
 PÉRDIDA DE APETITO	 ICTERICIA (COLORACIÓN AMARILLENTA DE PIEL Y OJOS)	 DOLOR ESTOMACAL
 VÓMITO	 ORINA OSCURA, HECEZ BLANCAS, Y DIARREA	

WHAT ARE THE SYMPTOMS OF HEPATITIS A?

 FEVER	 FATIGUE	 NAUSEA
 LOSS OF APETITE	 JAUNDICE (YELLOWING OF THE SKIN OR EYES)	 STOMACH PAIN
 VOMITING	 DARK URINE, PALE STOOLS & DIARRHEA	

If you think you have Hepatitis A because of these symptoms, consult to your doctor or visit the closest Emergency Room.

If you think you have Hepatitis A because of these symptoms, see your doctor or visit the closest Emergency Room.

Challenges in high risk populations

- Distrust of system → low uptake of vaccine
 - Identify community vaccinators and referral center for vaccinations
- Access to sanitation
 - Can't use alcohol based hand sanitizer
 - Indoor handwashing stations?
- Stable yet infectious homeless individuals discharged back into crowded settings
 - Where do confirmed cases go if homeless and not admitted to hospital?
- Establishing system for early reporting of cases
 - Identify clinical partners in inpatient/outpatient settings



Handwashing station being used in downtown San Diego on 9/2 (Photo: San Diego Union Tribune)

Hepatitis A

In 2017, hepatitis A outbreaks among homeless populations have occurred in multiple states across the county including large outbreaks in California, Michigan, and Utah. The Chicago Department of Public Health investigates all reported cases of hepatitis A in order to prevent an outbreak from occurring.

Why should you care about hepatitis A?

If a person has an infection with the Hepatitis A virus, it can easily spread from person-to-person and cause liver disease lasting a few weeks to a serious illness lasting many months. In some cases, people can die because of Hepatitis A.

How does hepatitis A spread?

- Touching objects or eating food that someone with hepatitis A infection handled
- Having sex with someone who has a hepatitis A infection

What are the symptoms of hepatitis A?

Fever, fatigue, jaundice, nausea, vomiting, loss of appetite, stomach pain, dark urine, pale stools, and diarrhea

If you think you have Hepatitis A because of these symptoms, see your doctor or visit the closest Emergency Room.

How can you prevent hepatitis A? (If your doctor recommends it)

- Get vaccinated with hepatitis A vaccine

Supporting Information Facts

Department:

Public Health
Health Protection

Additional Information

Get the Facts: Hepatitis A

- [English](#)
- [Spanish](#)

Get the Facts: Hepatitis A for Volunteers with direct contact with high-risk groups

- [English](#)

Get the Facts: Hepatitis A for Food Handlers

- [English](#)

Get the Facts: Hepatitis A

Conozca los hechos: Hepatitis A

Hepatitis A Information



Hepatitis A

Hepatitis A is a highly contagious liver infection caused by the hepatitis A virus. It can range from a mild illness lasting a few weeks to a severe illness lasting several months. Although rare, hepatitis A can cause death in some people. Hepatitis A usually spreads when a person unknowingly ingests the virus from objects, food, or drinks contaminated by small, undetected amounts of stool from an infected person.

Background: Recent outbreaks of hepatitis A virus (HAV) across the country have raised awareness of this serious and highly contagious illness. In close proximity to Chicago, Southeastern Michigan has been experiencing a HAV outbreak since August 2016 which has accelerated since August 2017 with a total of 431 cases, 348 hospitalizations (85.7% of cases) and 17 deaths (data as of October 18, 2017). The largest HAV outbreak since the introduction of vaccine has been ongoing in San Diego County since March 2017, with a total of 507 cases, 351 hospitalizations (69% of cases) and 19 deaths (data as of October 17, 2017).

Symptoms: Symptoms of HAV include a viral prodrome of fatigue, malaise, fever, muscle aches, followed by nausea, vomiting, diarrhea (more common in children), abdominal pain and hepatitis (elevated serum aminotransferase levels) which can be associated with darkening of urine, pale-colored stools, and yellowing of the skin (jaundice) and/or eyes (scleral icterus). The most common symptom in adults is jaundice (>70%). Transmission occurs by fecal-oral route. Liver failure and death are more likely to occur in persons over the age of 50 years and those with chronic liver disease.

Prevention: In order to protect Chicago's highest risk individuals, Chicago Department of Public Health is asking all adult healthcare providers to vaccinate the following high risk groups with any hepatitis A vaccine currently in stock.

- Homelessness or transient housing
- Men who have sex with men
- Users of injection and non-injection drugs
- History of incarceration
- Persons with chronic liver disease
- Travelers*
- Persons with clotting-factor disorders
- Persons who work with non-human primates
- Persons who anticipate close personal contact with an international adoptee

Important Information Regarding PRIDE 2018

Upcoming Pride events, students returning home from college, and nearby outbreaks may increase risk of vaccine-preventable disease transmission.

This is the time of year to get all high-risk adults—including men who have sex with men (MSM) and HIV-positive individuals—up to date on recommended vaccines including:

- o Meningococcal conjugate vaccine: Revaccination every 5 years
- o Hepatitis A vaccine: One-time vaccination series (2 doses of Vaqta® or Havrix® or 3 doses of Twinrix®)
- o Measles, Mumps, Rubella (MMR) vaccine: 2 documented doses, serologic proof of immunity, or at least 1 dose now if vaccination status is unknown. Consider 3rd dose of MMR to HIV-positive patients with CD4>200.

Please click [HERE](#) for more information

Information for Vaccinators

If your organization is interested in receiving Hepatitis A vaccine to administer to high risk populations, please email vaccine@cityofchicago.org or call 312-746-5382 to discuss.

- [Emergency Department Hepatitis A Vaccination Program FAQ](#)
- [Standing orders for administering Hepatitis A Vaccine to Adults](#)
- [Hepatitis A vaccination - information for health care providers](#)
- [Hepatitis A Vaccine Information Statement \(VIS\)](#)
- [Hepatitis A Patient Evaluation and Management for ED and Outpatient Providers](#)

Manufacturer's Vaccine Assistance Programs: The following is provided for

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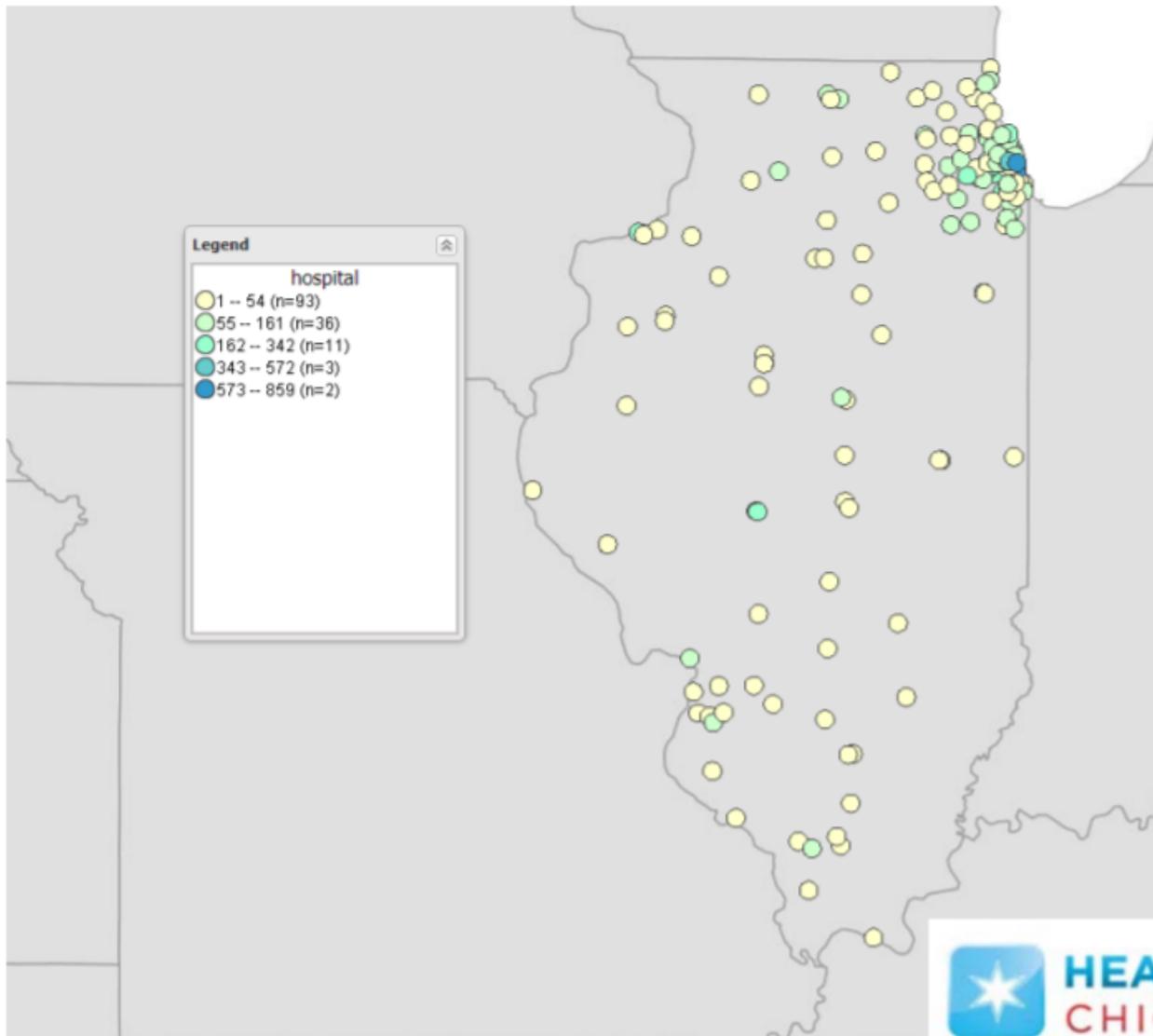
REPORT

- Long incubation period, poor access to medical care → Delayed diagnostic testing
- Timely reporting of suspect and confirmed
- In 2017, delayed reporting led to:
 - Inability to interview the patient while admitted
 - Inability to give post-exposure prophylaxis
 - Sending homeless individuals back into congregate settings while infectious
 - Discarded serum specimens and inability to genotype cases

Role of Infection Control

- Provider education on early identification, diagnosis, and reporting
 - Ideally report while patient still admitted so public health investigation can be initiated
- Use of ICARE
- Isolation of infectious patients
 - Standard precautions recommended +/- contact precautions if diapered or incontinent
- Discharging infectious patients (alternate housing strategies?)
- Emergency Department interventions

Syndromic Surveillance Data on Homeless ED Visits



- 10,769 ED visits this calendar yr to date
- Males account for 73% of homeless visits
- Average age was 45.3 years
- 40% of patients were in Chicago hospitals
- Springfield was the next most often listed city (1 reported HAV case in Homeless)



Emergency Departments

- Large homeless population served
- 12/7/17 HAN Guidance recommends:
 - Vaccination of high risk individuals
 - Reporting of clinically suspicious cases
 - Enhanced information gathering/documentation
 - **Screening form** developed to facilitate reporting
 - Education / distribution of hygiene kits
- Starting to distribute vaccine, hygiene kits and educational materials (workflow document, FAQ)
 - need to work on standing orders, I-CARE connectivity

**Chicago Department of Public Health (CDPH) Hepatitis A Vaccination Programs for
Emergency Departments (ED): Frequently Asked Questions (FAQs)**

1. How do we receive hepatitis A vaccines from the health department?
2. How should patients be screened for hepatitis A risk factors?
3. Who is eligible to receive public vaccine during the Hepatitis A Outbreak?
4. How do we enroll our ED in I-CARE immunization registry?
5. What is the status of public vaccine availability to ED sites?
6. What is the status of private vaccine availability ED sites?
7. Will the ED need to provide the second dose of hepatitis A vaccine in 6 months?
8. Who do ED sites call if there are difficulties ordering or obtaining adequate vaccine doses?
9. Should hospitals be screening and vaccinating in-patients with at-risk conditions?

www.chicagohan.org/hepa to download provider resources

Provider Screening Tool

- Adapted from San Diego and MI
 - Screen
 - Immunize
 - Inform/ISOLATE
- Remember to report suspected and confirmed cases to CDPH

One of the most effective ways to reduce the spread of hepatitis A in Chicago is to ensure that those at highest risk of disease have received at least 1 dose of hepatitis A vaccine. Report suspected and confirmed cases immediately to Chicago Department of Public Health (CDPH) Communicable Disease Hepatitis Surveillance at (phone) 312-746-6197; (fax) 312-746-6388. Call 311 and ask for the Communicable disease physician on call for evenings, weekends, or holidays.

PREVENTION BEGINS WITH SCREENING FOR RISK FACTORS

RISK

DO ANY OF THESE RISK FACTORS APPLY TO THE PATIENT?

- Persons who use injection or non-injection illicit drugs
- Men who have sex with men
- Persons with chronic liver disease, such as cirrhosis, hepatitis B, or hepatitis C
- Persons who are homeless

If YES, screen for signs & symptoms of Hepatitis A and obtain vaccine history

OBTAIN HISTORY OF HEP A VACCINE

- Have you ever received the hepatitis A vaccine? If so, when?
- Were you ever diagnosed with hepatitis A? If so, when?

If the patient has received 1 or more doses of hepatitis A vaccination or has a history of hepatitis A infection, there is no need to proceed with screening.

If the patient has not received any doses of hepatitis A vaccination & has no known history of hepatitis A infection, proceed with screening.

DETERMINE HEALTH INSURANCE



- Do you currently have health insurance, including Medicaid or private insurance?

ADMINISTER VACCINE



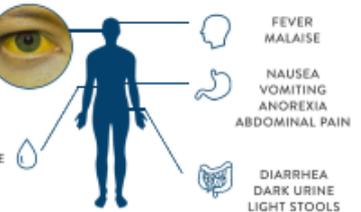
- If YES, administer private vaccine and bill insurance.
- If patient answers NO, is not sure, or states that insurance doesn't cover vaccines, please administer public stock vaccine.

SYMPTOMATIC - Signs & Symptoms

JAUNDICE



ELEVATED SERUM AMINOTRANSFERASE LEVELS



FEVER
MALAISE

NAUSEA
VOMITING
ANOREXIA
ABDOMINAL PAIN

DIARRHEA
DARK URINE
LIGHT STOOLS

ISOLATE



- Observe standard precautions
- Observe contact precautions when caring for incontinent and diapered patients
- Observe hand hygiene with soap and water; wash hands for at least 10-20 seconds
- Confirm diagnosis with serum IgM testing

INFORM



- Public stock vaccine dose must be entered into I-CARE (Illinois Comprehensive Automated Immunization Registry Exchange)
- Patients with hepatitis A should avoid work in food establishments and healthcare/childcare settings until 2 weeks after symptom onset. Provide education to patients about hepatitis A, how it spreads, and how to prevent it.
- For additional healthcare provider resources, visit <https://www.chicagohan.org/hepa>.
- For educational materials, including palm cards and posters to download, visit www.cityofchicago.org/HepatitisA.

Adapted with permission from Dr. Kristi L. Koenig, EMS Medical Director, County of San Diego Health & Human Services Agency

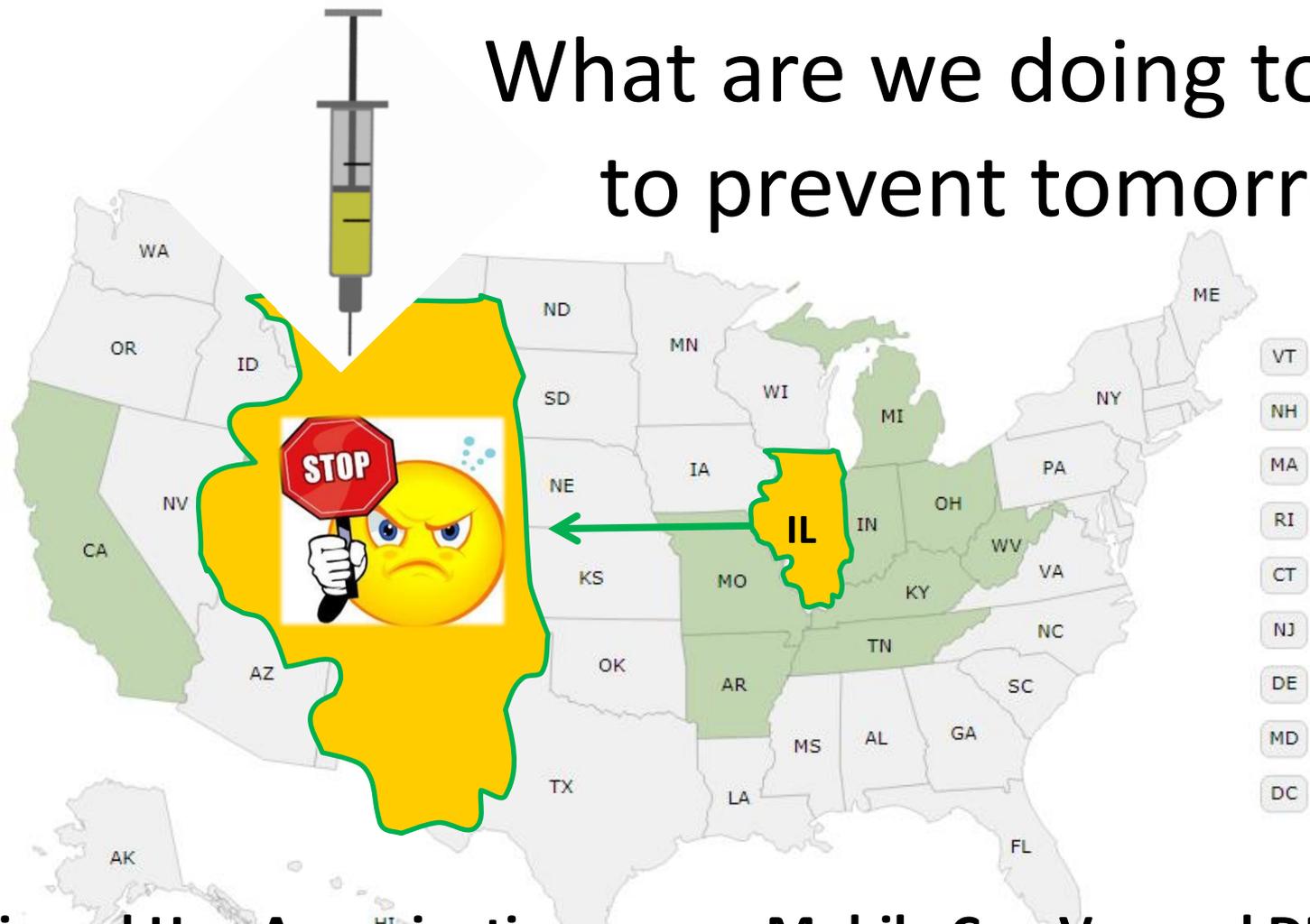
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Lessons learned

- Prepare workflows/order sets for screening, vaccination, isolation, education and public canned communication now
- Initiate an Incident Command Structure early
 - updating of surveillance materials, quick deployment of post-exposure prophylaxis and structure for scalable vaccination response
 - Access to public information staff to quickly create platform for community partner/provider resources
 - Could facilitates information sharing between departments (lab, infection control, ED, psych, inpatient, outpatient)
- Build your community partnerships and identify inpatient and outpatient healthcare setting champions now
 - Bring them in early and often
 - Depending on the target high-risk population, you need a trusted community face delivering the message/vaccine

What are we doing today to prevent tomorrow?



- Continued Hep A vaccination on our Mobile CareVan and DFSS unit
- Hep A program initiation at Cook County Jail
- IDPH outbreak vaccine being distributed to local IL providers
- Continued education as winter and holidays near...

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 - Public Information: Caitlin Polochak
- Illinois Department of Public Health
- DFSS – Department of Family & Support Services, CDPH DFSS Mobile Service Unit
- Chicago Park District
- Blue Cross Blue Shield of IL
- Cook County Jail
- Howard Brown Health Centers
- Chicago Recovery Alliance, All Chicago, CARITAS, Center for Housing & Health
- Chicago Coalition for the Homeless, Chicago House, Community First Pharmacy, Community Outreach Intervention Projects, CORE Center, Crossroads Adult Treatment Center, Family Guidance Center, Garfield Counseling, Greater Chicago Food Depository-GCFD, HAS-Healthcare Alternative Systems, Haymarket, Heartland Health Outreach, HRDI, Kenwood United Church of Christ, Lawndale Christian Homeless Outreach, Mexican Consulate, Midwest Asian Health Association, North Lawndale ATC, Northside Housing and Supportive Services, Uptown Men’s Shelter, Northwestern Memorial Hospital, Pacific Garden Mission, Rincon Family Services, Safer Foundation, Salvation Army, South Side Help Center, St. Bernard Hospital Pharmacy, The Night Ministry, University of Chicago, Women’s Treatment Center, Center on Halsted, Chicago Black Gay Men’s Caucus



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