



Hepatitis A and other Vaccine-Preventable Woes in Massachusetts

Adult Immunization Conference

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Presenter Disclosure Information

I, Larry Madoff MD, have been asked to disclose any significant relationships with commercial entities that are either providing financial support for this program or whose products or services are mentioned during our presentations.

I have no relationships to disclose.

I will discuss the use of vaccines in a manner not approved by the U.S. Food and Drug Administration, but in accordance with ACIP recommendations.



150 YEARS
OF ADVANCING
PUBLIC
HEALTH



Published Date: 2017-03-24 15:42:09

Subject: PRO/EDR> Hepatitis A - USA: (MI) increased incidence

Archive Number: 20170324.4923927

HEPATITIS A - USA; (MICHIGAN) INCREASED INCIDENCE

A ProMED-mail post

<http://www.promedmail.org>

ProMED-mail is a program of the
International Society for Infectious Diseases

<http://www.isid.org>

Date: Fri 24 Mar 2017, 10:34 AM

Source: CBS Detroit [edited]

<http://detroit.cbslocal.com/2017/03/24/officials-hepatitis-a-is-on-the-rise-in-southeast-michigan/>

State health officials are alerting the public about a rise in cases of hepatitis A, a vaccine-preventable disease. The Michigan Department of Health and Human Services says there's been an 8-fold increase in the cases of hepatitis A over the past year in southeast Michigan. From [1 Aug 2016] to [21 Mar 2017], officials say 107 cases of laboratory-confirmed hepatitis A have been reported in Macomb, Oakland, and Wayne counties, and the city of Detroit.

Ages of the cases range from 22 to 86 years, with an average age of 45 years. The majority of the cases have been male; 85 percent of the cases have been hospitalized with 2 deaths reported. Approximately one-third of the cases have a history of substance abuse, and 16 percent of all cases are co-infected with hepatitis C. No common sources of infection have been identified.



Published Date: 2017-05-11 20:56:11

Subject: PRO/EDR> Hepatitis A - USA (05): (CA) fatal

Archive Number: 20170511.5028824

HEPATITIS A - USA (05): (CALIFORNIA) FATAL

A ProMED-mail post

<http://www.promedmail.org>

ProMED-mail is a program of the
International Society for Infectious Diseases

<http://www.isid.org>

[1]

Date: Mon 8 May 2017

Source: San Diego County.gov [edited]

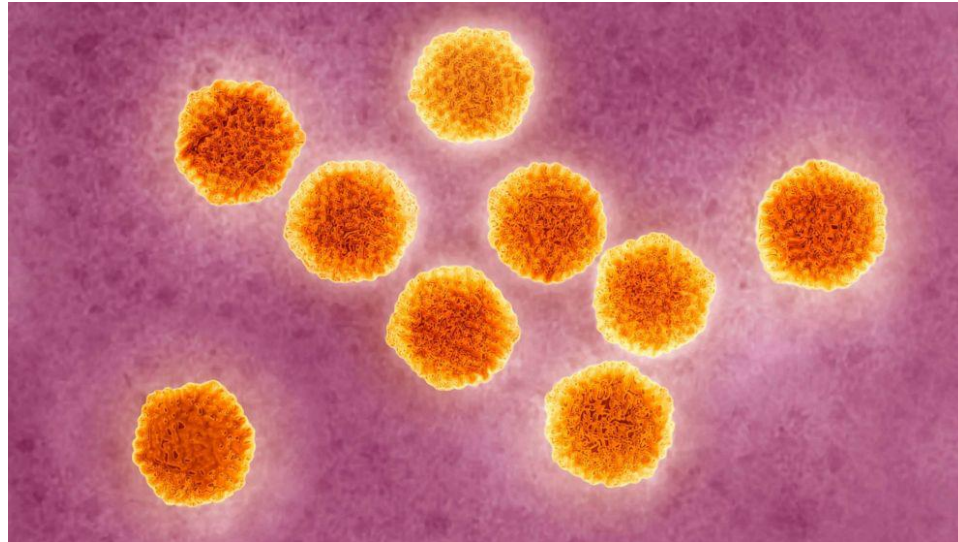
http://www.sandiegocounty.gov/content/sdc/hhsa/programs/phs/community_epidemiology/dc/Hepatitis_A.html

San Diego Hepatitis A Outbreak, 2017

For the past several months, the County of San Diego Health and Human Services Agency has been investigating a local hepatitis A outbreak. The outbreak investigation is ongoing; it has been challenging because of the long incubation period of the disease (15 to 50 days) and the difficulty experienced to contact many individuals sickened with the illness who are homeless. To date, no common source of food, beverage, or other cause has been identified.

Hepatitis A background

- Endemic in most of the world
- Fecal-oral transmission
 - >90% seroprevalence in developing countries
- RNA virus (picornavirus)



Hepatitis A Clinical

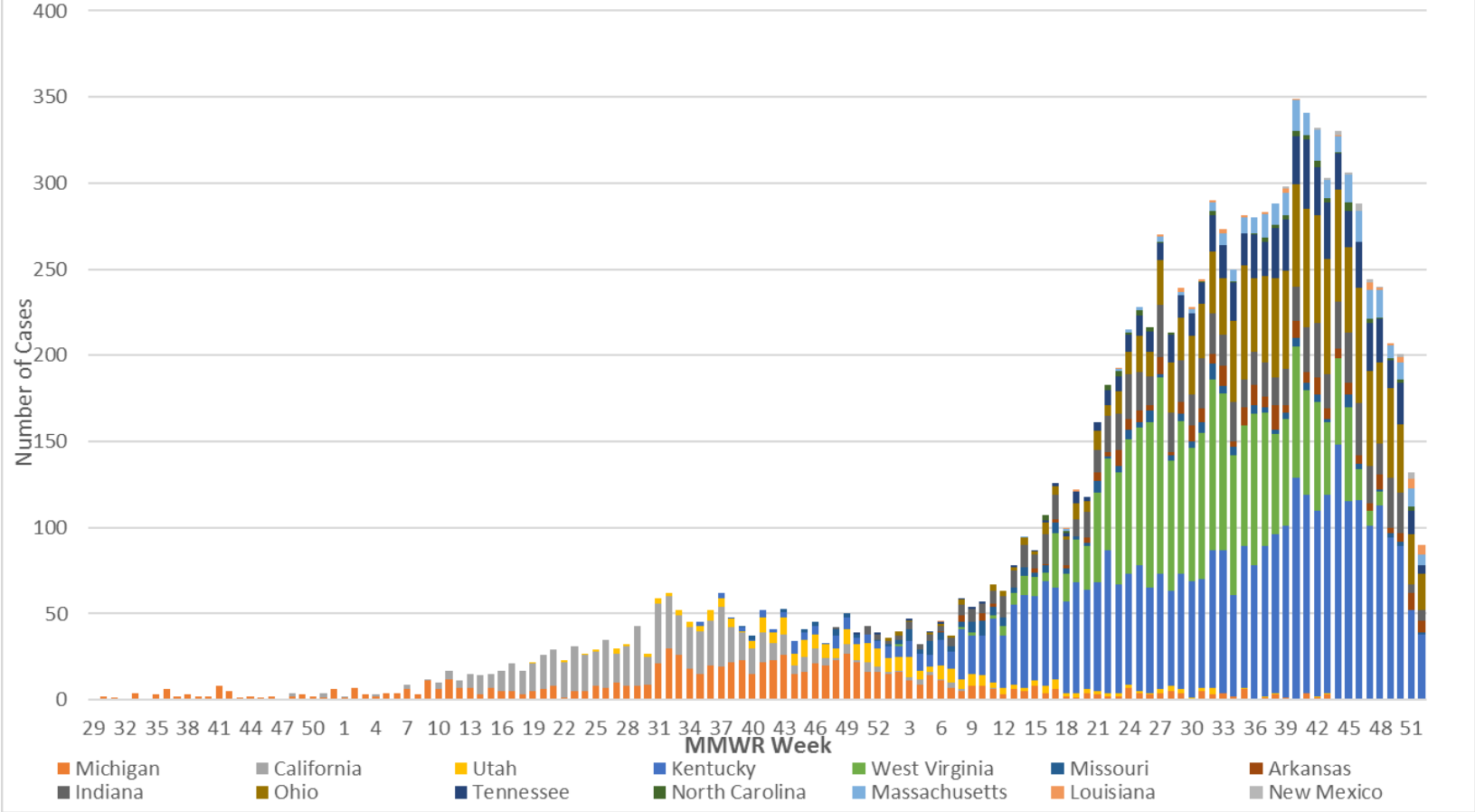
- Asymptomatic or minimally symptomatic disease in children
- In adults, usually presents as mild-to-moderate self-limited illness
 - Malaise
 - Nausea and vomiting
 - Abdominal pain
 - Jaundice (yellowing of skin and sclerae, dark urine)
- Usually diagnosed by positive Hep A IgM
- No chronic form, low mortality
- In US associated with travel, foodborne outbreaks, MSM

Jaundice in hepatitis A

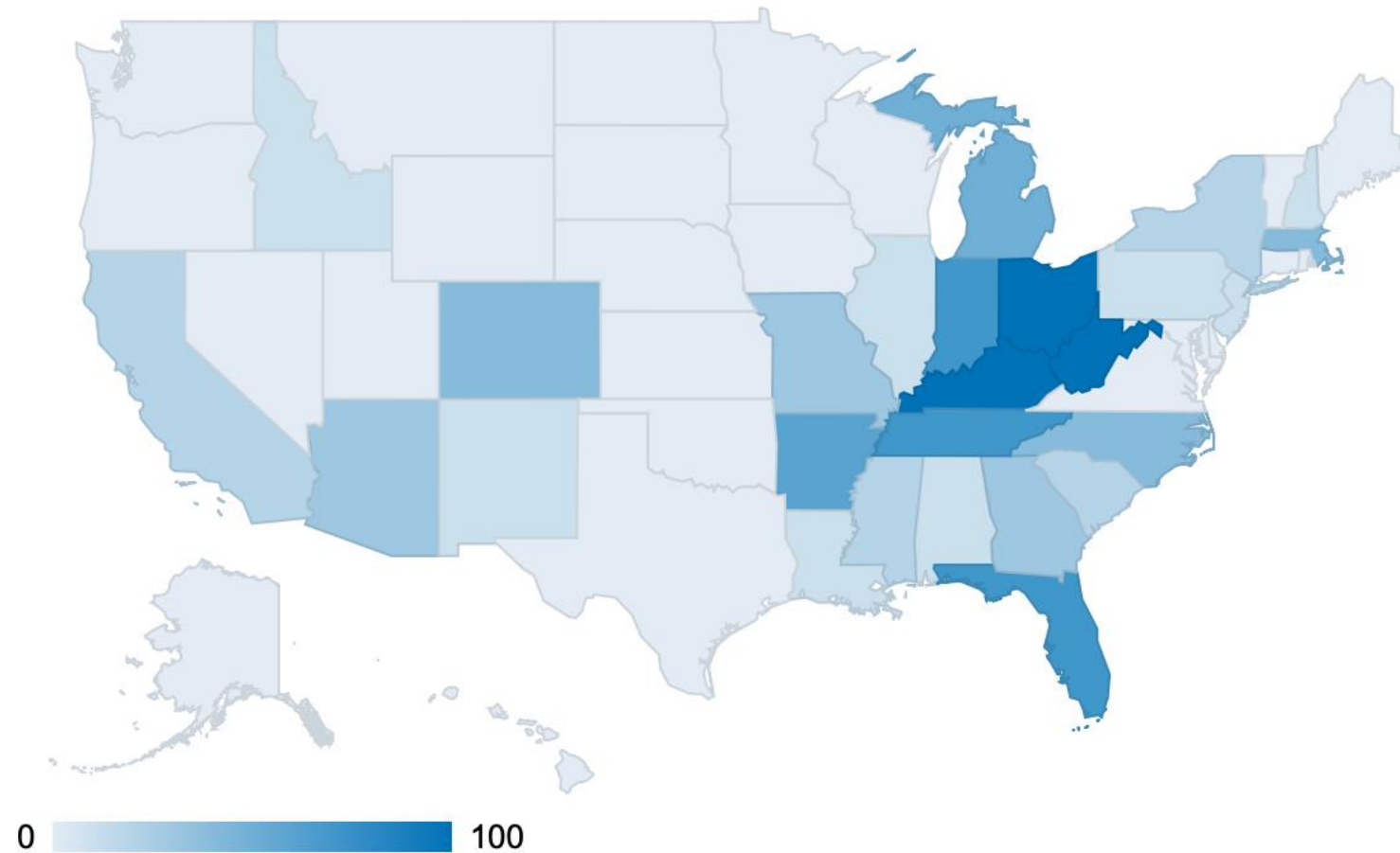


Source: CDC via [immunize.org](https://www.immunize.org)

Hepatitis A Cases by MMWR Week, July 27, 2016 - December 29, 2018 (N=11,025)



Hepatitis A intensity by state

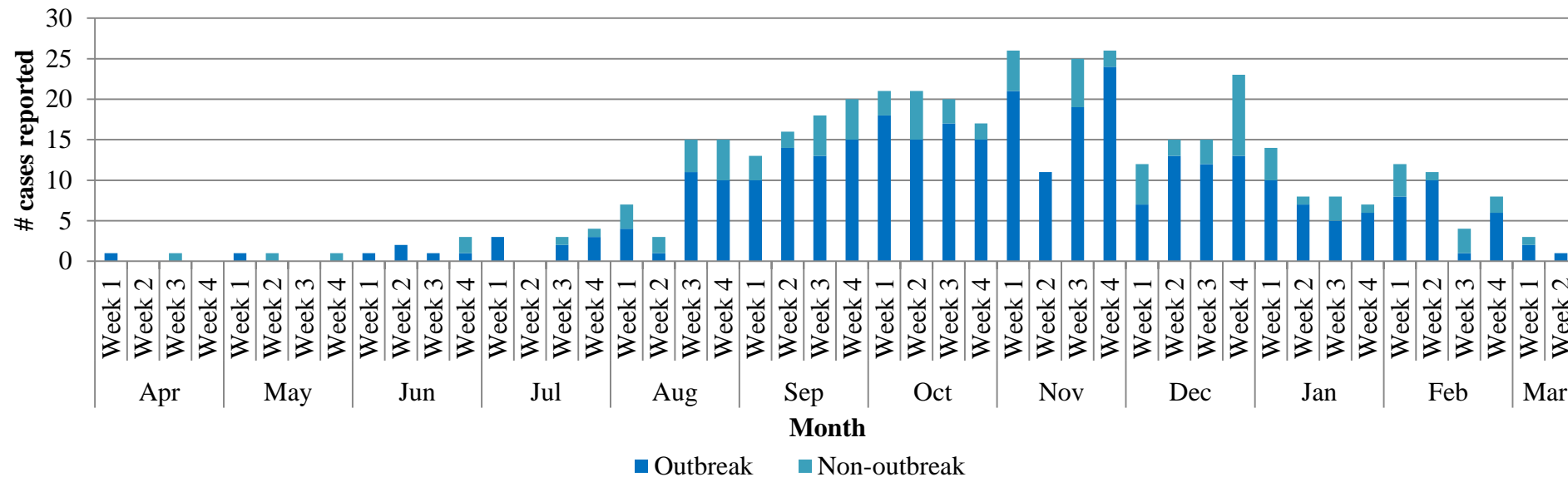


This map was last updated March 19, 2019.

Source: Hepmag.com

Since April 2018, 335 cases reported to MDPH in individuals experiencing homelessness and/or substance use disorder

Hepatitis A cases, by event date, Massachusetts, April 2018 - March 2019



Cases occurring after Week 2 in March excluded. Data for more recent weeks may be incomplete due to diagnosis and reporting delays. Data source: MDPH Bureau of Infectious Disease and Laboratory Sciences. Data as of 3/22/2019 and subject to change.

Outbreak cases (N= 335)

- Complications
 - Hospitalization rate: 83%
 - Mortality rate: 1%
- Demographics
 - Gender: 60% male
 - Age: Range 21-78, Median 34
 - Race/ethnicity: predominantly white non-Hispanic

Data as of 3/22/2019 and subject to change.

Outbreak cases (N= 335)

- Risks:
 - Homelessness/unstable housing: 50%
 - Injection drug use: 76%
 - Any illicit drug use: 90%
 - Current or recent incarceration: 10%

Data as of 3/22/2019 and subject to change.

Interventions

- Increase awareness by outreach to:
 - Homeless shelters and caregivers
 - Emergency departments
 - Providers
 - Local Boards of Health
 - Houses of Correction
 - Drug treatment facilities
- Increased availability of vaccine
- Homelessness as indication for Hep A vaccine (ACIP)

Vaccination recommendations

- Vaccinate all persons at high risk:
 - Persons experiencing homelessness
 - Persons who use injection or non-injection drugs and/or have chronic liver disease (including chronic hepatitis B or C infection or chronic alcohol use)
 - Persons recently or currently incarcerated
 - Men who have sex with men
- Single dose of monovalent hepatitis A vaccine

Hepatitis A is going around.

Hepatitis A is a virus that can cause liver disease.

Protect yourself:

Wash your hands* with soap and warm water before touching food and after going to the bathroom or using drugs.



1. Use warm water and soap.
2. Rub your hands together for at least 20 seconds.
3. Rinse your hands well with warm water.
4. Dry your hands using a paper towel or air dry them.

*Washing with soap and warm water is best. If you can't wash, use hand sanitizer.



Differences in Massachusetts?

- Relatively small proportion of unsheltered homeless
- Access to care
 - Access to healthcare
 - High insurance rate
- Outstanding partnerships
- Different genotype (IIIA vs IB)
- Prior outbreak in 2003-4

Homelessness in US and Massachusetts

- On a single night in 2018, roughly 553,000 people were experiencing homelessness in the US
 - 65% in sheltered locations, 35% unsheltered
- 20,068 people experienced homelessness in 2018 in Massachusetts (29 people per 10,000)
 - 4.9% unsheltered
- Massachusetts has one of the largest increases in homelessness in the country
 - 32.7% increase from 2007 to 2018



03:14



Boston's Homeless Census Taken On Dangerously Cold Night

January 31, 2019

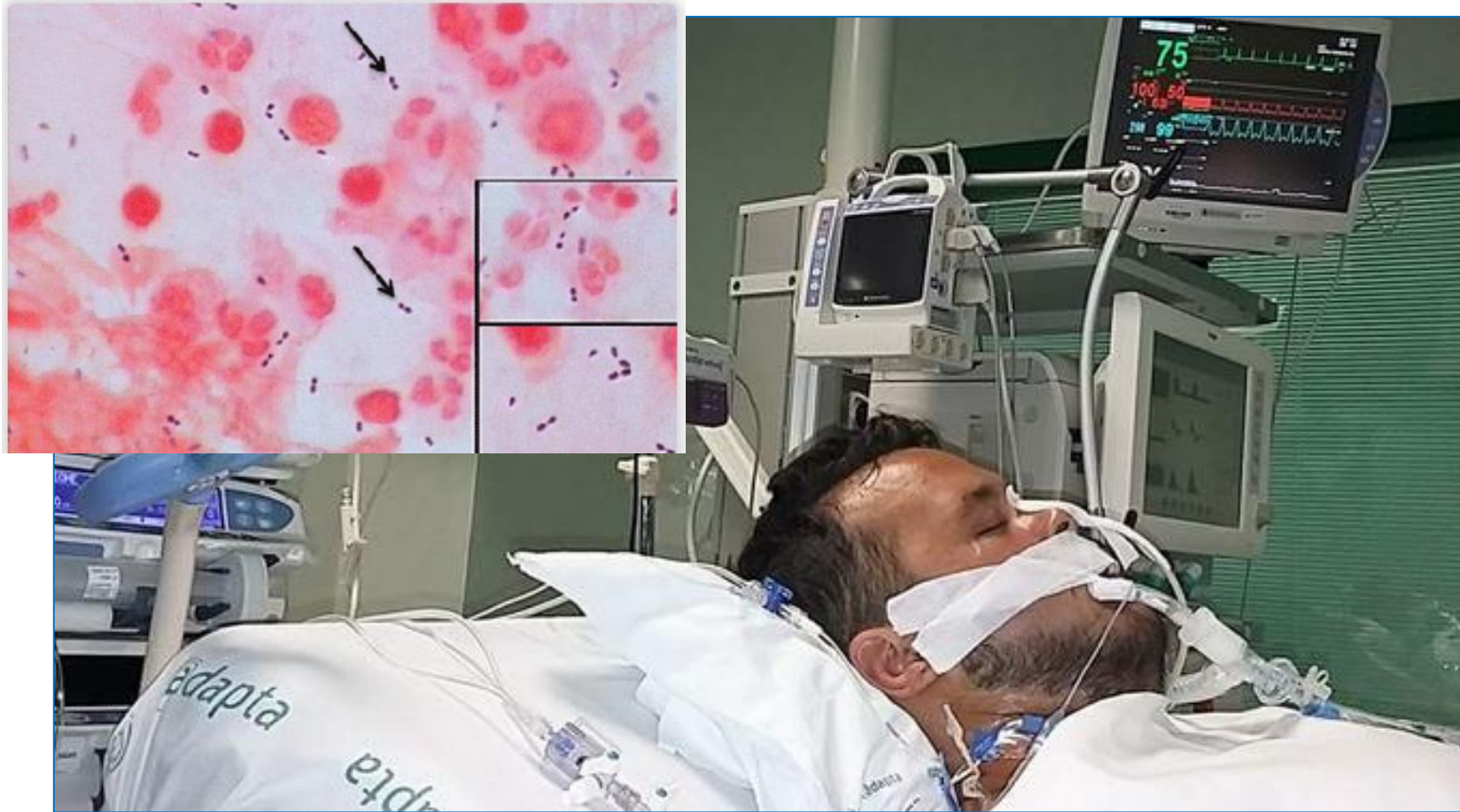
By [Simón Rios](#)



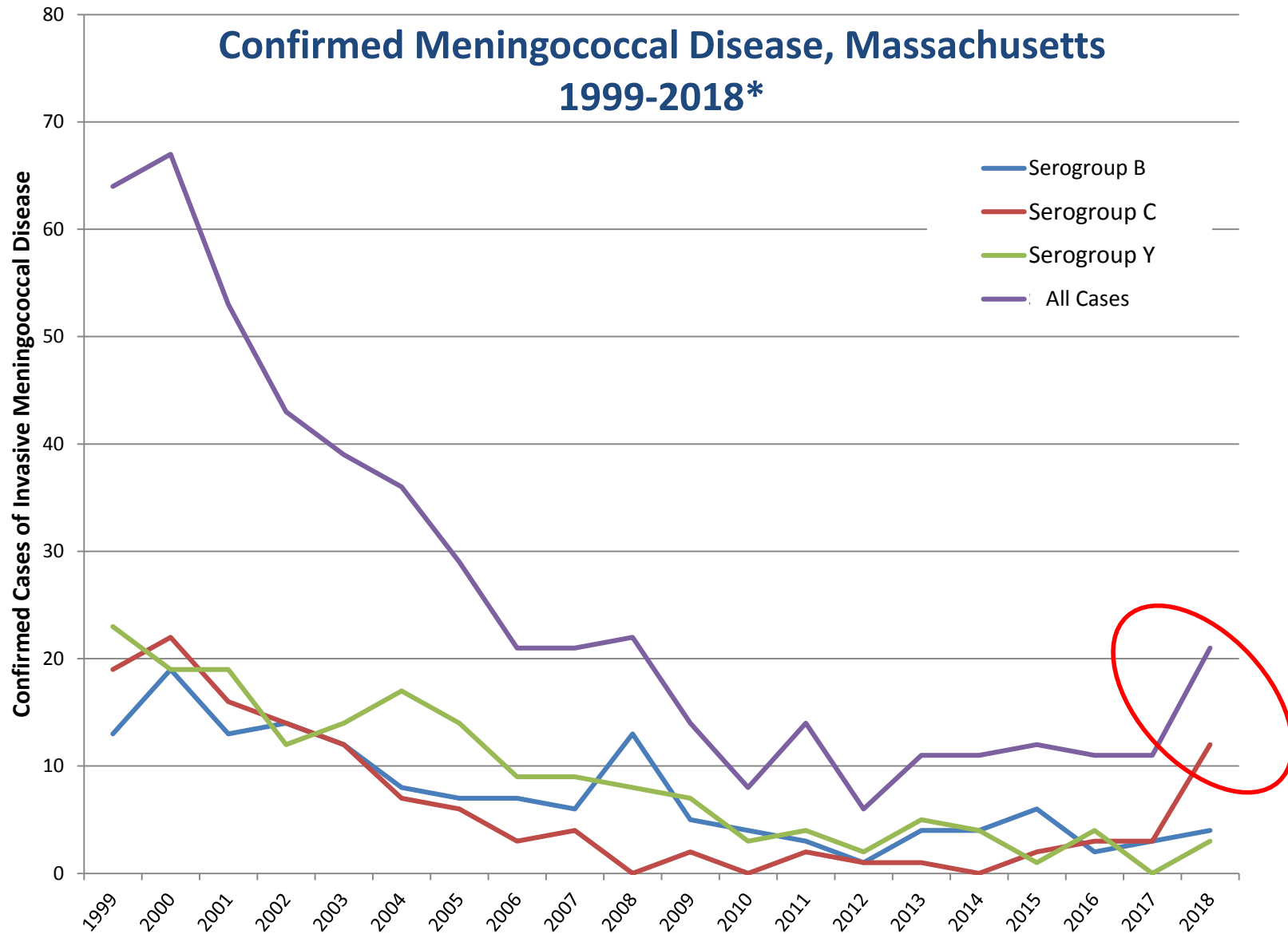
From the city's 2013 homeless census, Jim Greene, the director of emergency shelters for the Boston Public Health Commission (in red), and another volunteer lift a blanket off of a homeless woman at Downtown Crossing to check if she is OK. (Jesse Costa/WBUR)

“Last year, the city reported 163 people were living without shelter — 23 fewer than the year before. Those individuals are just part of the more than 6,000 people dealing with homelessness in Boston.”

Meningococcal Disease



Source of photo: <https://www.meningitisnow.org/support-us/news-centre/meningitis-stories/?tag=meningococcal>
Micrograph: CDC bacterial meningitis page

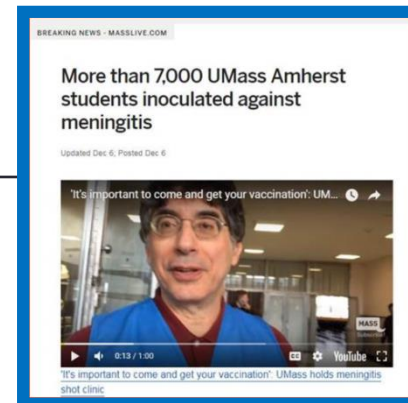
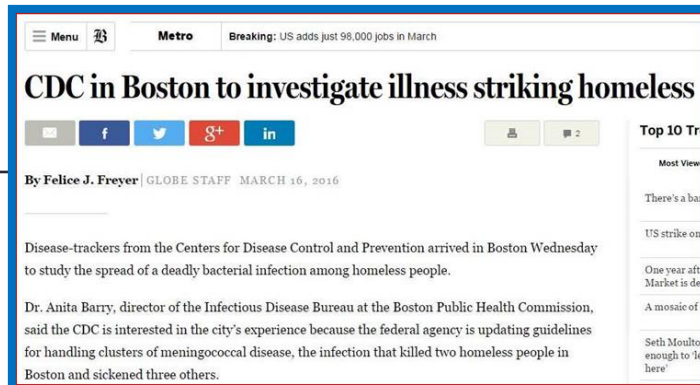


*2018 data are preliminary and subject to change

Two Outbreaks of Invasive Meningococcal Disease in MA



Location of Outbreak	Population Impacted	Initial Onsets	Recent Onsets	Total cases to date	Serogroup	Deaths	Control Measures
Five College Consortium, Greater Amherst	Students	2 cases Oct/Nov 2017 at UMass Amherst	1 case February 2018 at Smith College	3	B	No deaths	PEP for close contacts (>160) and huge vaccination efforts (>10,200 doses at UMass, >2200 Smith College).
No new cases in >1 year!							
Greater Boston Homeless Communities	People experiencing homelessness	Winter 2016*	Winter 2019	15**	C (12) Y (3)	Two deaths (group Y)	PEP for close contacts and huge vaccination efforts >5000 doses in Boston, Cambridge, Lynn, Quincy, Haverhill, Worcester



*retrospectively, a case was identified from 2015

**includes 2 cases with connection to homeless communities in stable housing



Thank you

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