



# Massachusetts Department of Public Health

## Hepatitis A Outbreak in Persons Experiencing Homelessness and Substance Use Disorder, 2018-2020

NASTAD VLC

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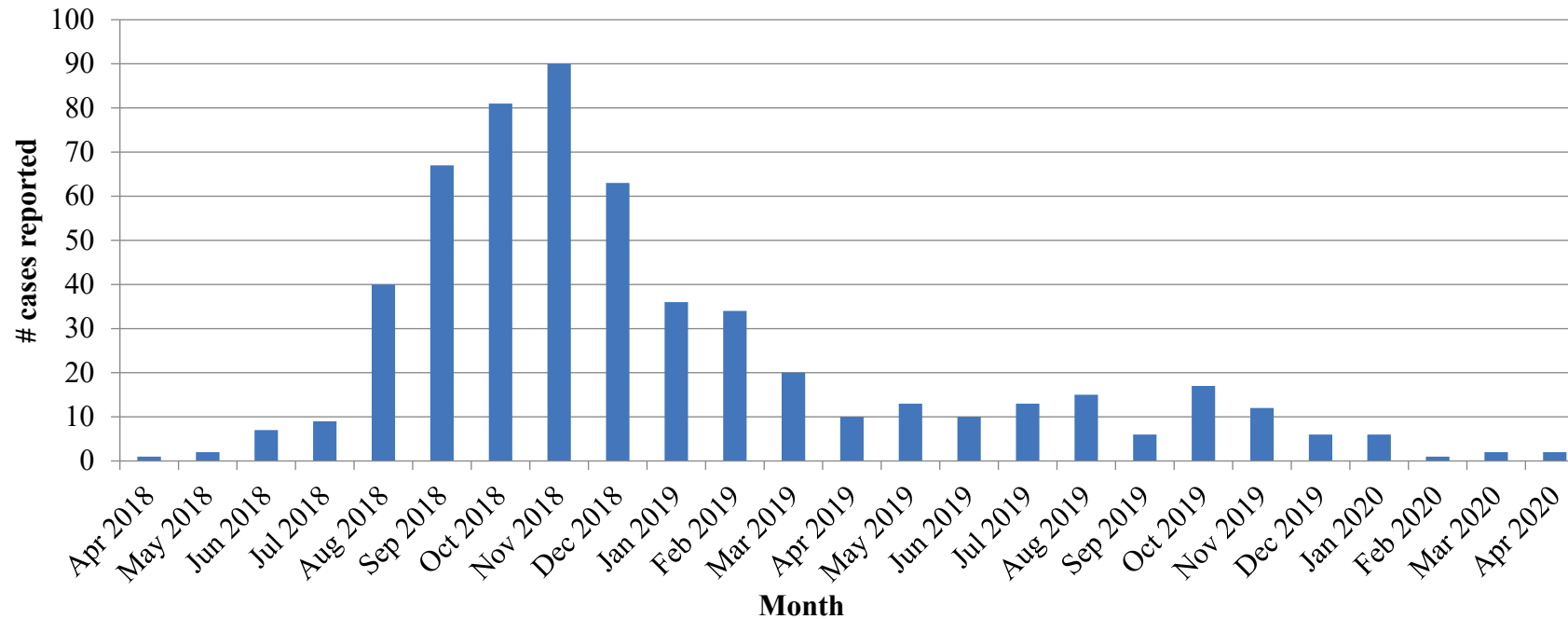
# Hepatitis A in Massachusetts

- Each case investigated by local board of health (LBOH) and MDPH Division of Epidemiology
  - Demographic, clinical, and risk data collected
  - Vaccination recommended for close contacts when indicated
- Typically about 50 confirmed reported cases per year
  - At least 25% associated with international travel
- Males and females affected equally
- 50% hospitalization rate

# Massachusetts outbreak

- April 2018 - April 2020: 563 cases, 442 hospitalizations (79%), and 9 deaths (2%)

Hepatitis A cases, by event date, Massachusetts, April 2018 - April 2020



Data source: MDPH Bureau of Infectious Disease and Laboratory Sciences. Data as of 5/29/2020 and subject to change.

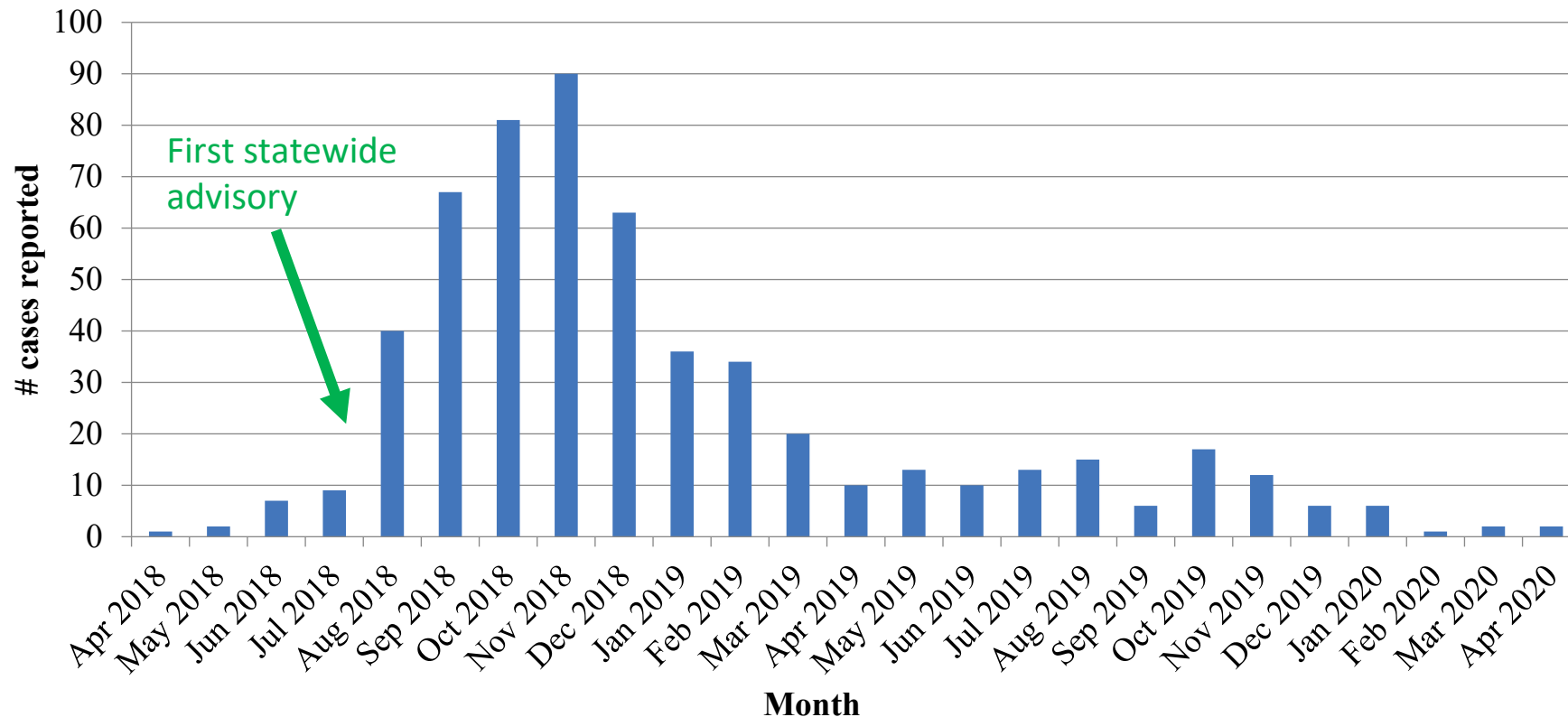
# Massachusetts outbreak cases

- Predominantly white, non-Hispanic
- Median age 35 (range 6-98)
- From 12 of 14 Massachusetts counties
- High coinfection rates:
  - Hepatitis B: 3%
  - Hepatitis C: 46%
  - HIV: 4%
- 35% of cases experiencing homelessness or unstable housing
- 68% of cases have reported drug use
- Predominantly genotype IIIA

All people who are recommended to be vaccinated!

# Initiation of response

Hepatitis A cases, by event date, Massachusetts, April 2018 - April 2020



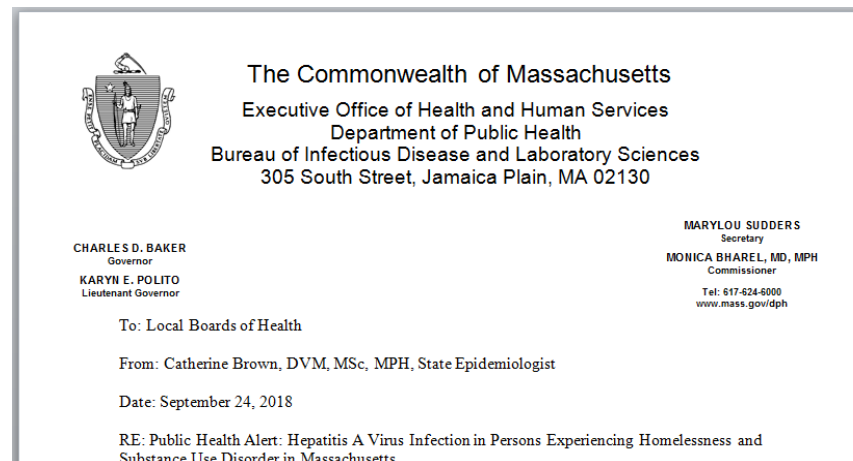
Data source: MDPH Bureau of Infectious Disease and Laboratory Sciences. Data as of 5/29/2020 and subject to change.

# MDPH response players

- Team effort across Bureau of Infectious Disease and Laboratory Sciences
- Organizational groups:
  - Bureau leadership
  - Division of Epidemiology: Surveillance, case investigation, coordination with LBOHs, making control/PEP recommendations, data analysis and distribution
  - Immunization Division: Dissemination of vaccine
  - Office of HIV/AIDS: Support for contracted agencies
  - State Public Health Laboratory: PCR, genotyping
- Recent experience working collaboratively on acute hepatitis B outbreak (2017-2018)
- Regular meetings to discuss epidemiology, control efforts

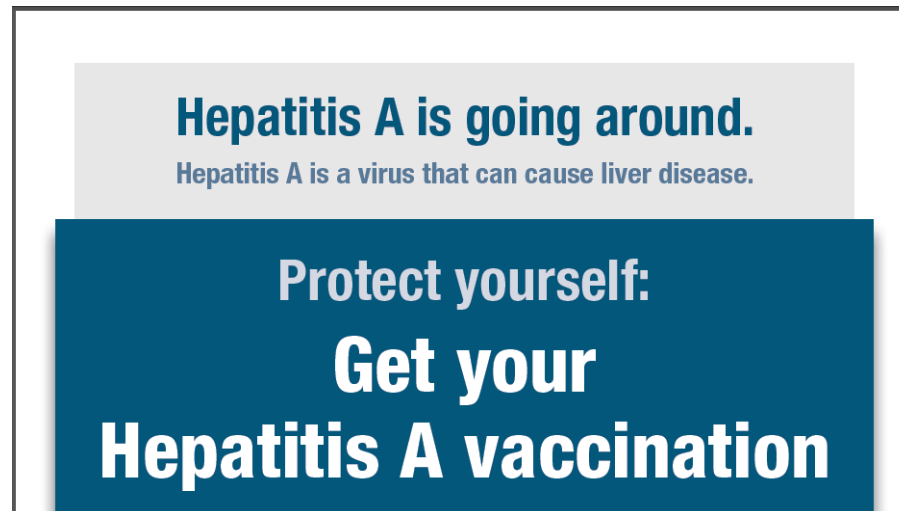
# MDPH response

- Communications recommending vaccination of at-risk population and other prevention measures:
  - Clinical advisory August 2, 2018 (with Boston Public Health Commission)
  - Clinical advisory August 22, 2018
  - Public health alert September 24, 2018
  - Weekly outbreak data reports



# MDPH response

- Outreach to LBOHs, homeless shelters, syringe services programs, community health centers, jails, emergency departments, detox facilities, and other agencies serving at-risk populations
- Provision of state & CDC supplied HAV vaccine
- Development of communications materials





# Public-facing resources

- Created [outbreak-specific website](#) with alerts and advisories, data summaries, clinical resources for holding vaccination clinics, communications materials

## SUMMARY OF REPORTED HEPATITIS A CASES LINKED TO PERSON-TO-PERSON OUTBREAK, MASSACHUSETTS, APRIL 1, 2018-NOVEMBER 1, 2019

Since April 2018, the Massachusetts Department of Public Health (MDPH) and local health departments have been investigating an outbreak of hepatitis A. The populations most affected by the outbreak are those with recent experiences of homelessness or unstable housing, and/or substance use disorder. This report, which is updated bi-weekly, summarizes outbreak-associated cases and compares them to 2017 cases (pre-outbreak). In prior reports, MDPH used a narrower definition for “outbreak-associated” cases, and reported those with a known history of homelessness or unstable housing, and/or substance use disorder, separately from other 2018-2019 cases. As the outbreak has evolved and virus genotyping information has become available, MDPH has adopted a broader definition which is consistent with available data, national practices, and allows comparison between jurisdictions. This report is prepared by the MDPH Bureau of Infectious Disease and Laboratory Sciences using the most up-to-date data available; data are subject to change. If you have questions about the report please call the Division of Epidemiology at (617) 983-6800.

	2017 cases	2018-2019 outbreak cases
<b>Number of cases</b>	53(0 deaths)	528 (7 deaths)
<b>Demographics</b>		
Gender	64% male	64% male
Age: median (range)	36 (5-85)	35 (6-98)
<b>Race</b>		
Asian	6%	1%
Black	6%	5%
Native Hawaiian/Pacific Islander	--	<1%
White	49%	72%
Other	4%	9%
Unknown	36%	14%
<b>Ethnicity</b>		
Hispanic	2%	7%
Non-Hispanic	47%	68%

	2017 cases	2018-2019 outbreak cases
<b>Complications</b>		
Hospitalizations	58% (31)	79% (417)
Deaths	0%	1% (7)
<b>Risks</b>		
Homelessness/ unstable housing	0%	36%
Known injection drug use	2%	57%
Known any illicit drug use	4%	70%
<b>Affected counties</b>		
Barnstable	0%	2%
Berkshire	2%	1%
Bristol	6%	5%
Dukes	2%	0%
Essex	9%	13%
Franklin	0%	<1%
Hampden	4%	7%
Hampshire	0%	2%

# Commercial pharmacy partnership

- Challenge: Community-based organizations (CBOs) interested in vaccinating target populations but lacking clinical staff
- Approach: New MDPH partnership with Shaw's Osco Pharmacy
- CBO hosted clinic, recruited clients, and provided support staff. Osco pharmacists vaccinated using state-supplied vaccine and charged MDPH only administration fee.

# Where are we now?

- Outbreak declared over in May 2020
  - Measured with CDC criteria
- Promotion of adult vaccination as primary prevention
- Ongoing sequencing project with Broad Institute

# High Risk Adult Immunization Project

- Funded through Immunization Grant Supplement AA1
- Goal to increase routine vaccination of high-risk adults for hepatitis A, hepatitis B, and invasive meningococcal disease (MenACWY)
- Focused on persons with substance use disorders, persons experiencing homelessness, persons who are incarcerated
- Worked with five partner agencies to implement or expand current vaccine services (focus on mobile services)
- Created patient facing and non-clinical provider facing materials to communicate the importance of vaccination
- Promoted vaccination in jails

# Acknowledgements

- Bureau leadership: Kevin Cranston, Dr. Catherine Brown, Dr. Larry Madoff
- Division of Epidemiology: Pat Kludt, Erin Mann, Dan Church, Carley Perez, Tony Osinski
- Immunization Division: Dr. Susan Lett, Pejman Talebian, Katie Reilly, Shumethia Seal
- Office of HIV/AIDS: Dawn Fukuda, Linda Goldman
- State Public Health Laboratory: Dr. Glen Gallagher, Stephanie Ash

# Connect with DPH



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DPH blog

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# Massachusetts Department of Public Health

# Thank You!

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