



Michigan Department of Health & Human Services

Michigan Hepatitis A Outbreak Update for Clinicians

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September 26, 2018

Putting people first, with the goal of helping all Michiganders lead healthier and more productive lives, no matter their stage in life.

Disclosures

Dr. Wells has no financial interest, or any conflicts of interest, regarding the material provided in her presentation today

Slide material has been adapted from:

- *Epidemiology and Prevention of Vaccine-Preventable Diseases*, National Center for Immunization and Respiratory Diseases
- Michigan Department of Health and Human Services Communicable Disease Division materials

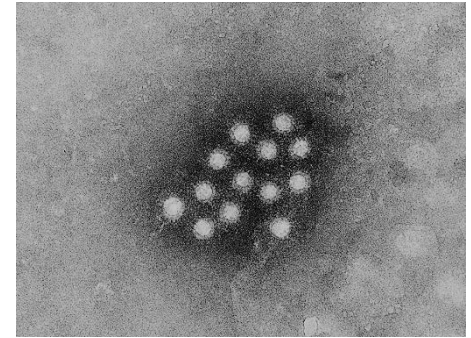
Outline

- Review of Hepatitis A Virus
- Hepatitis A Diagnosis and Management
- Guidelines for Hepatitis A Prevention, General
- Michigan Outbreak 2016-Present
- Guidelines for Management of Hepatitis A, Michigan 2018
- Waning Hep A Immunity in HIV, Michigan 2018

Review of Hepatitis A Virus

Hepatitis A Virus

- Picornavirus (RNA)
- Humans & some non-human primates are hosts
- Stable at low pH
- Inactivated by temperature of 185°F or higher, formalin, chlorine
 - Disinfection: 1 and 2/3 cups bleach in 1 gallon water (5000 ppm).
 - Allow 1 minute of contact time and then rinse with water.



CDC: PHIL 2739

Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Hamborsky J, Kroger A, Wolfe S, eds. 13th ed. Washington D.C. Public Health Foundation, 2015.

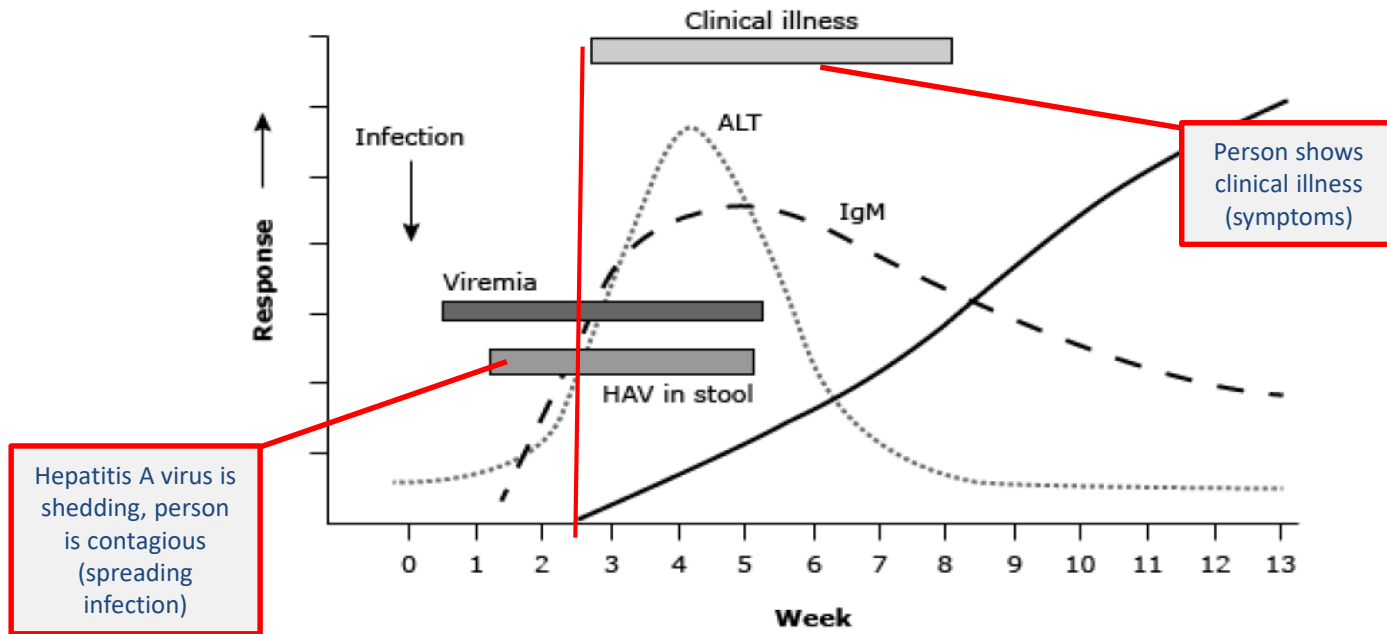
Hepatitis A Virus

- Highly contagious, vaccine-preventable (acute) liver infection
- Incubation Period - illness can appear **15 to 50** days after exposure
 - **Average 28 days**
- Illness not specific for hepatitis A
- Likelihood of symptomatic illness directly related to age
- Children generally asymptomatic, adults symptomatic

Hepatitis A Pathogenesis

- Entry into mouth
- Viral replication in the liver
- Virus present in blood and feces 10-12 days after infection
- Virus excretion may continue for up to 3 weeks after onset of symptoms

Course of hepatitis A



Timeline for hepatitis A manifestations.

Transmission

**Ingestion of fecal matter, *even in microscopic amounts*,
from:**

Touching objects or eating food that someone with hepatitis A infection handled

Close, person-to-person contact with a person who is infected

Use of recreational drugs, whether injected or not

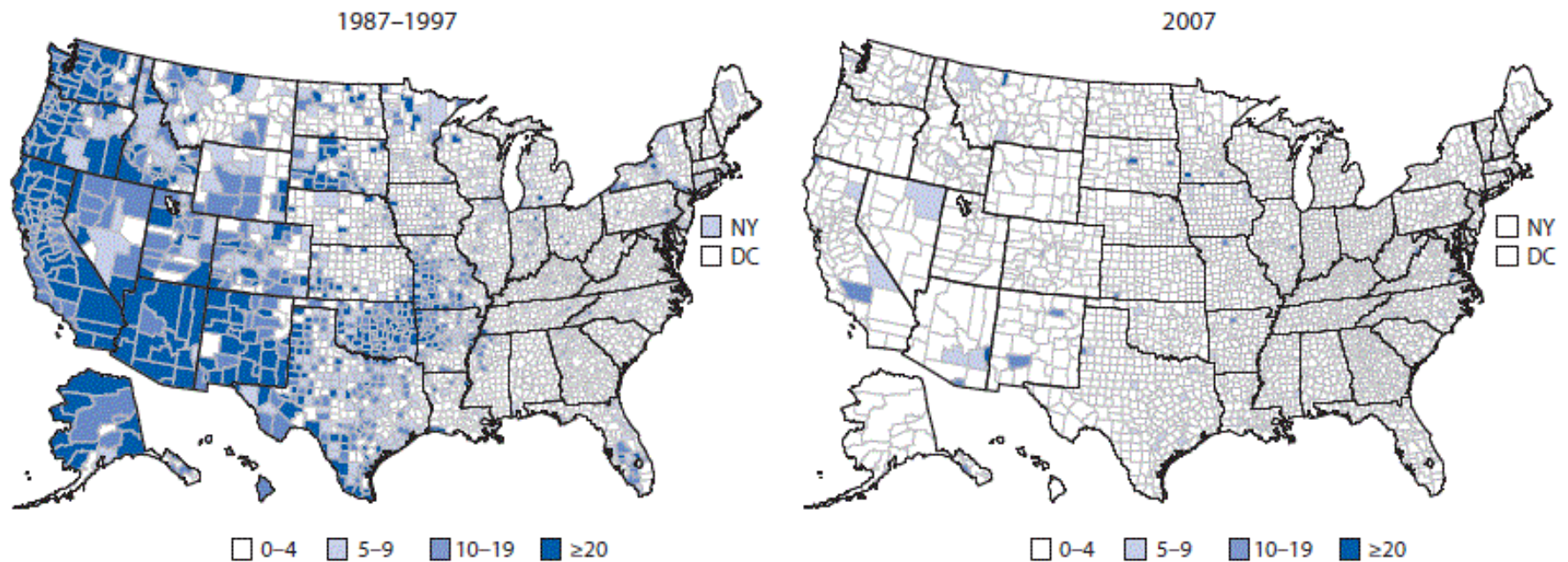
Sexual contact with someone who has a hepatitis A infection



Hepatitis A Epidemiology

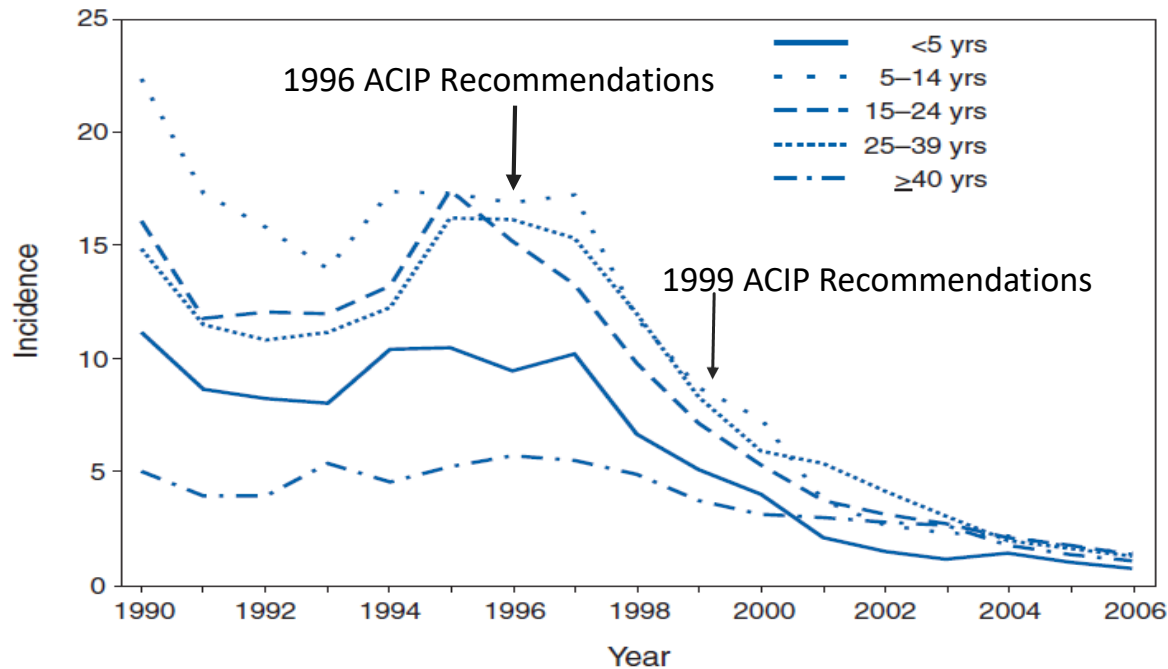
- Reservoir
 - human
- Transmission
 - fecal-oral
- Temporal pattern
 - none
- Communicability
 - 2 weeks before illness to 1 week after onset of jaundice

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



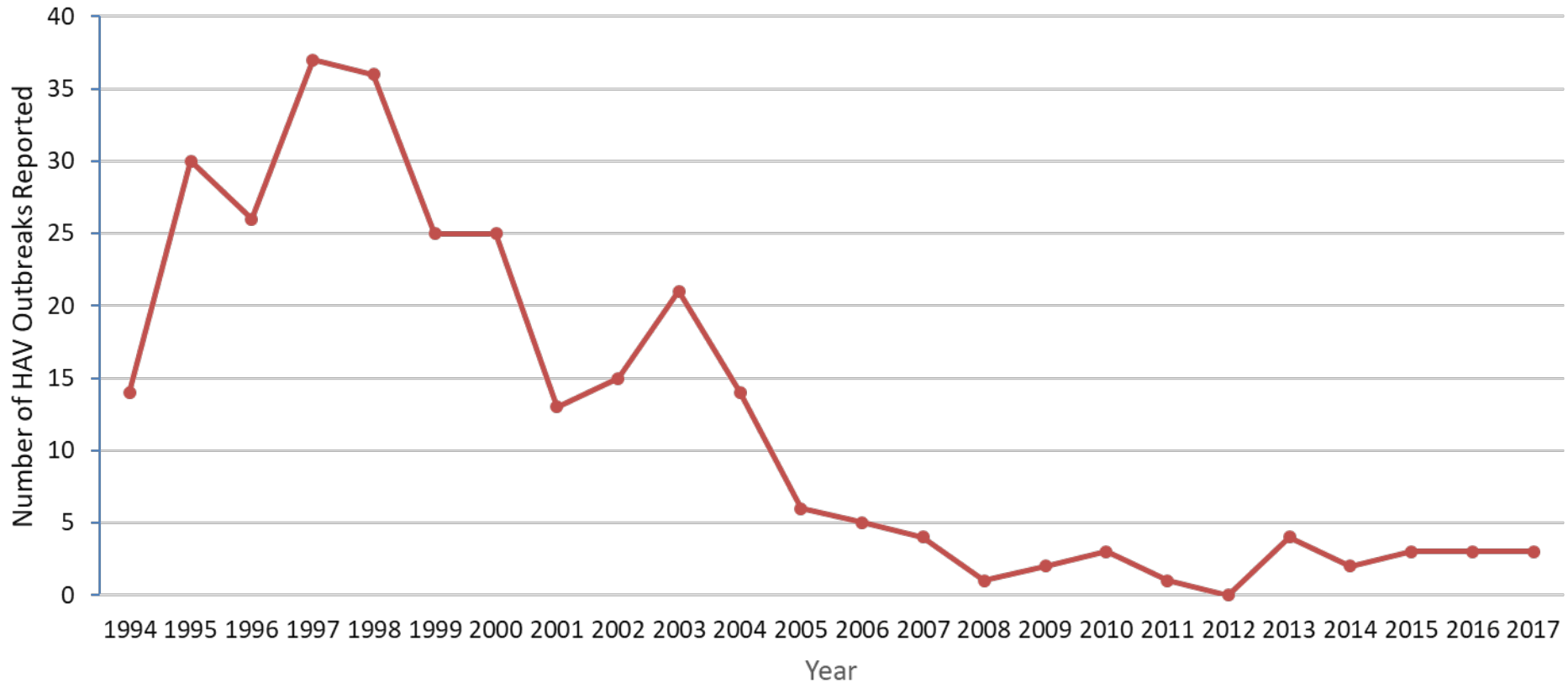
* Rates per 100,000 population; [†] Annual Average Incidence; Source: MMWR Supplements; February 12, 2016 / 65(1);29–41

USA incidence of acute hepatitis A by age group: 1990 - 2006



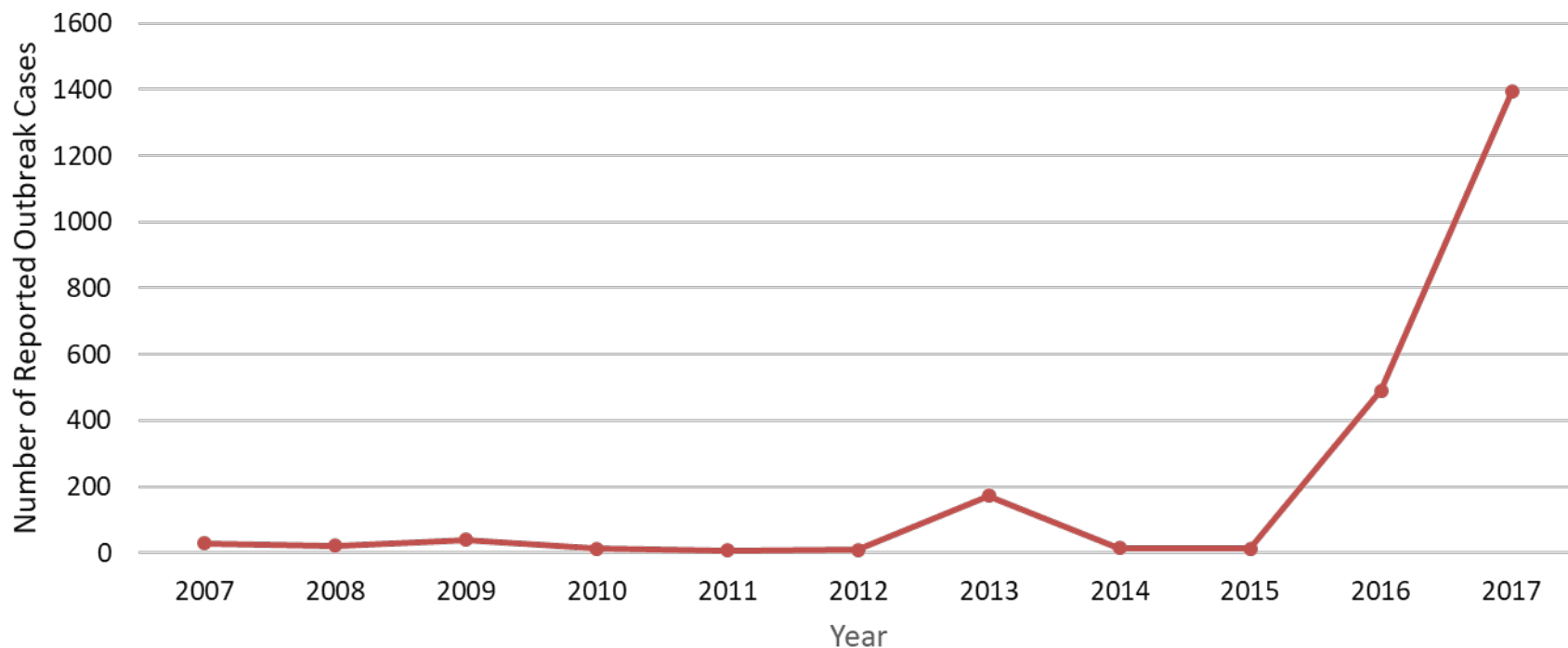
* Per 100,000 population.

Hepatitis A Outbreaks Identified in the United States – 1994–2017



Craig AS, et al. *Am J Med Sci* 2007 CDC FoodTool
From MDHHS Communicable Disease Hep A Slide set

Reported Cases Associated with HAV Outbreaks – United States, 2007–2017



Craig AS, et al. *Am J Med Sci* 2007; Collier MG, et al. *Lancet Infect Dis* 2014.;

CDC Unpublished data

From MDHHS Communicable Disease Hep A Slide set

Hepatitis A Diagnosis and Management

Hepatitis A Symptoms

NON-SPECIFIC!!!



Fever



Fatigue



Nausea



Loss of Appetite



Jaundice



Stomach Pain



Vomiting



Dark Urine, Pale Stools,
or Diarrhea

Not all people infected with hepatitis A experience illness. Most hepatitis A infections in children younger than age 6 are not accompanied by symptoms. Older children and adults are at risk for severe hepatitis A disease.

Risk Factors for Hepatitis A (General)

- International travelers (particularly high-risk itineraries like travel to rural areas in high-risk countries)
- Contacts of recent international adoptees from HAV endemic countries
- Men who have sex with men
- Users of illegal drugs
- ***Michigan Outbreak 2016-present are different!!***

Occupational Risks

- Outbreaks of hepatitis A have been reported among persons working with hepatitis A-infected primates
 - **This is the only occupational group known to be at increased risk for hepatitis A**
- Food workers are not at increased risk because of their occupation but may play a critical role in transmission
- US serologic studies have shown no or mildly increased risk of HAV infection in wastewater workers

Serologic Testing

- Serologic testing required to confirm the diagnosis.
- Virtually **all** patients with acute hepatitis A have detectable IgM anti-HAV.
- Acute HAV infection confirmed during acute or early convalescent phase of infection by presence of serum IgM anti-HAV
 - IgM detectable 5-10 days before the onset of symptoms and can persist for up to 6 months
- Polymerase chain reaction (PCR)-based assays can be used to amplify and sequence viral genomes
 - These assays are helpful to investigate common-source outbreaks of hepatitis A.

Serologic Testing, cont

- IgG anti-HAV appears in the convalescent phase of infection
 - Remains present in serum for the lifetime of the person, and confers enduring protection against disease**
 - Total anti-HAV measures both IgG anti-HAV and IgM anti-HAV
 - Persons with total anti-HAV positive and IgM anti-HAV negative: indicates immunity consistent with either past infection or vaccination

***Exceptions noted- will be discussed in HIV later in presentation*

Medical Management

- There is no specific treatment for hepatitis A virus infection
- Treatment and management of HAV infection are supportive



Guidelines for Hepatitis A Prevention- General

Primary Prevention- Immunization

- Inactivated whole-virus vaccines
- Pediatric and adult formulations
 - pediatric formulations approved for persons 12 months through 18 years
 - adult formulations approved for persons 19 years and older
 - Combination Hepatitis A and Hepatitis B vaccine (Twinrix), 18 years and older, 3 dose series

Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Hamborsky J, Kroger A, Wolfe S, eds. 13th ed. Washington D.C. Public Health Foundation, 2015.

Hepatitis A Vaccine Immunogenicity

- Adults
 - more than 95% seropositive after one dose
 - nearly 100% seropositive after two doses
- Children and Adolescents
 - more than 97% seropositive after one
 - 100% seropositive after 2 doses (in clinical trials)
- **Hepatitis A Vaccine Efficacy**
 - HAVRIX
 - 40,000 Thai children 1 to 16 years of age
 - vaccine efficacy 94%
 - VAQTA
 - 1,000 New York children 2 to 16 years of age
 - vaccine efficacy 100%

Childhood Hep A Vaccination

- All children should receive hepatitis A vaccine at 12 through 23 months of age
- Vaccination should be integrated into the routine childhood vaccination schedule
- Children who are not vaccinated by 2 years of age can be vaccinated at subsequent visits
- States, counties, and communities with existing hepatitis A vaccination programs for children 2 through 18 years of age should maintain these programs
- New efforts focused on routine vaccination of children 12 months of age should enhance, not replace ongoing vaccination programs for older children
- In areas without an existing hepatitis A vaccination program catch-up vaccination of unvaccinated children 2 through 18 years of age can be considered
- Hepatitis A vaccine is included in the VFC program

Adult Hep A Vaccination

- Adults 19 years of age and older receive the adult formulation of hepatitis A vaccine according to licensed schedules
- Persons at increased risk for HAV infection, or who are at increased risk for complications of HAV infection, should be routinely vaccinated
 - See “Risk Factors” Slide 17

Post Exposure Prophylaxis (PEP)

- PEP can protect susceptible (unvaccinated) persons who have *recently* been exposed to hepatitis A:
 - Remember, the incubation period of hepatitis A is approximately 28 days (range 15-50 days)
- **PEP must be given within 2 weeks after exposure to prevent infection:**
 - Hepatitis A Vaccine
 - Immune globulin (IG)



Photo credit: National Institute of Allergy and Infectious Diseases (NIAID), 2014. Public Health Image Library.

Hepatitis A Outbreak – Nationally

	Last updated	Cases	Hospitalizations	Deaths
Arkansas	*	112	*	*
California	04/11/18	704	461 (65%)	21 (3.0%)
Indiana	9/21/18	492	218 (44%)	1 (0.2%)
Kentucky	9/24/18	1,788	999 (56%)	14 (0.8%)
Michigan	9/19/18	895	719 (80%)	28 (3.1%)
Missouri	9/18/18	192	79 (41%)	0 (0.0)
Ohio	9/24/18	461	282 (61%)	0 (0.0)
Tennessee	9/14/18	232	131 (56%)	0 (0.0)
Utah	9/24/18	277	151 (56%)	1 (0.4%)
West Virginia	9/21/18	1,318	687 (52%)	2 (0.2%)

*Data not available

‡ Outbreak case definition and criteria for reporting of case totals differ by state

Source : <https://www.odh.ohio.gov/en/odhprograms/bid/orbitdis/hepa>

www.Michigan.gov/hepaoutbreak

<https://www.healthy.arkansas.gov/programs-services/topics/hepatitis-a>

<https://www.in.gov/isdh/27791.htm>

<https://chfs.ky.gov/agencies/dph/Pages/default.aspx>

<https://health.mo.gov/living/healthcondiseases/communicable/hepatitisa/index.php#outbreak>

<https://www.tn.gov/health/cedep/tennessee-hepatitis-a-outbreak.html>

http://health.utah.gov/epi/diseases/hepatitisA/HAVoutbreak_2017

https://dhr.wv.gov/oeps/disease/viral-hepatitis/pages/hepA_outbreak.aspx

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Hepatitis-A-Outbreak.aspx>

Hepatitis A Cases Nationwide

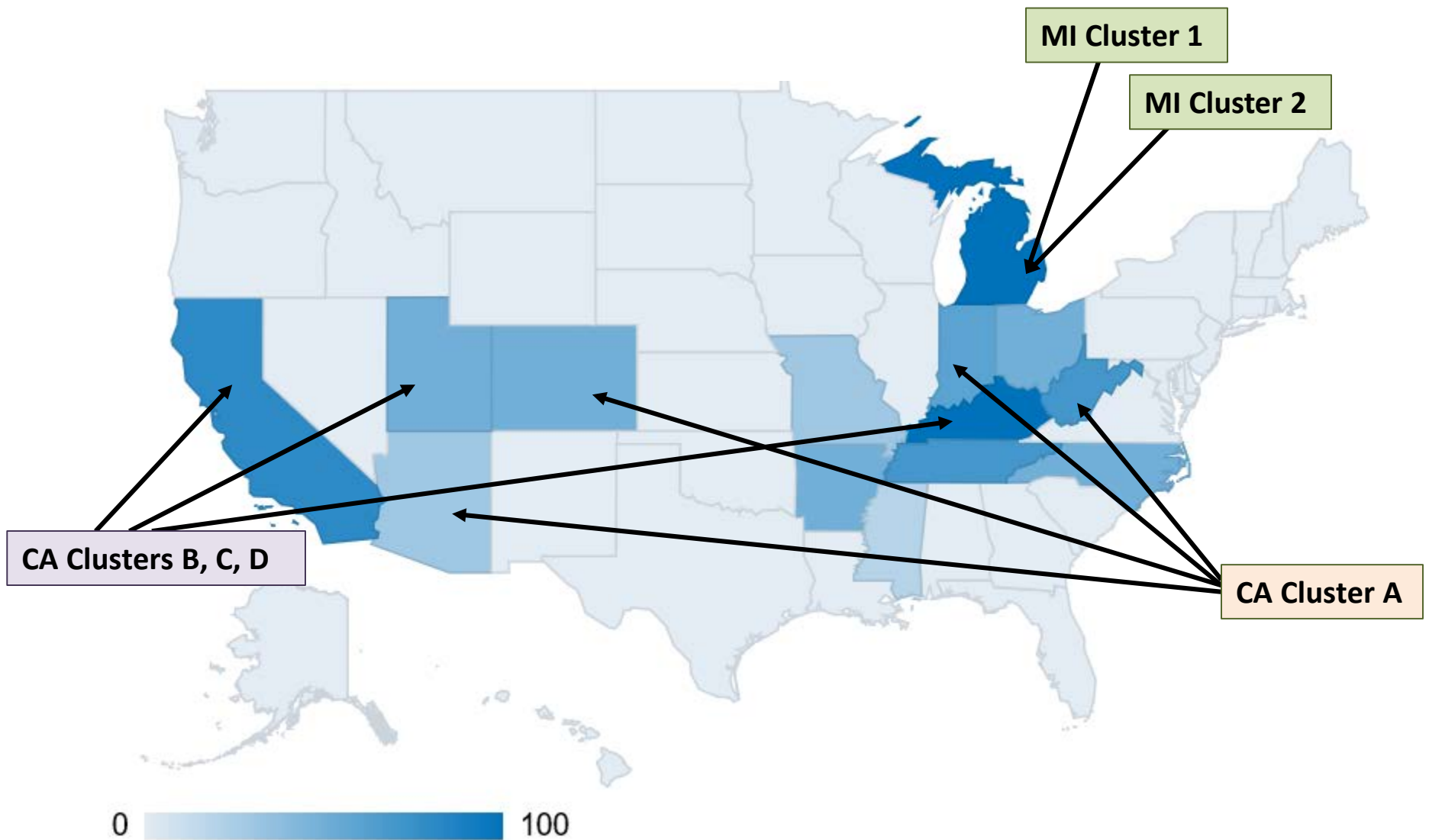
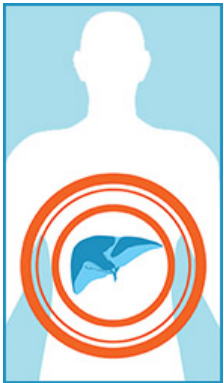


Photo source: <https://www.hepmag.com/iframe/hepatitis-a-outbreak-map>

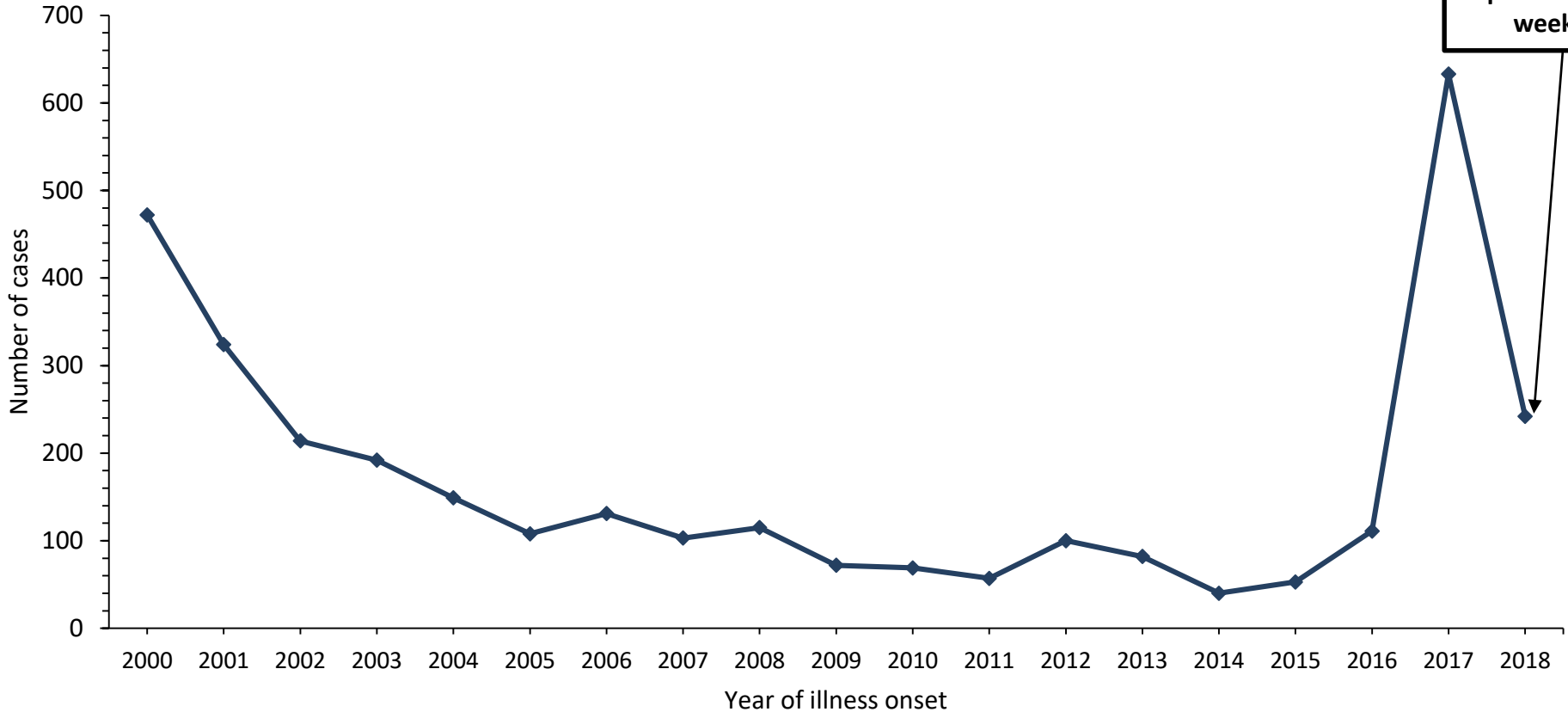
HAV cluster data adapted from CDC Implementation of GHOST for HAV Outbreak Detection Presentation

Hepatitis A Outbreak in Michigan: Statewide Update

September 19, 2018



Reported number of confirmed hepatitis A cases – Michigan 2000 – YTD 2018



* If illness onset was not identified first lab collection date was used in place

Data source: Michigan Disease Surveillance System, MDHHS.

Michigan Hep A Outbreak

- Current Michigan Outbreak
 - August 2016, nine cases of hepatitis A reported in SE Michigan counties
 - Early investigation focused on ill food workers and food establishments
 - No common source of infection identified; multi-modal
 - Cases included persons with substance use disorder, homeless or transient living, recently incarcerated, men who have sex with men (MSM), and food workers
 - Investigations continuing, vaccination efforts ongoing
 - Outreach and education to vulnerable populations

Hepatitis A MI Outbreak Testing

- CDC sequencing HAV positive serum samples from representative cases (high risk cases, but no travel-related cases)
 - Fall 2016, SEMI clinical labs asked to send all HAV positive serum samples to Bureau of Labs (BOL)
 - Samples forwarded to CDC lab for sequencing
 - CDC notified MDHHS in Aug 2016 that MI cases not related to previous hepatitis A outbreaks
 - Michigan strains **are unique**: 1B strains 1 and 2

Outbreak Case Classification:

- Cases were classified as outbreak cases if they had the Hepatitis A1B Outbreak Strain #1 or #2

BOL began Sanger sequencing of hepatitis A cases in Dec 2017

Genotyping & Sequencing Results

Genotyping/sequencing performed on available case specimens (n = 979)

68.2% HAV RNA recovered (n = 668)

31.8% HAV RNA negative & excluded (n = 311)

57.2% genotype IB strain #1 (n = 362)

37.6% genotype IB strain #2 (n = 251)

3.6% genotype IB strains #3-6 (n = 24)

1.2% genotype IB CA Cluster A & excluded (n = 8)

3.4% genotype IA & excluded (n = 23)

TRENDS IN THE NUMBER OF CASES

Aug 1, 2016 – Sept 19, 2018

895

Cases

719

Hospitalized

28

Deaths

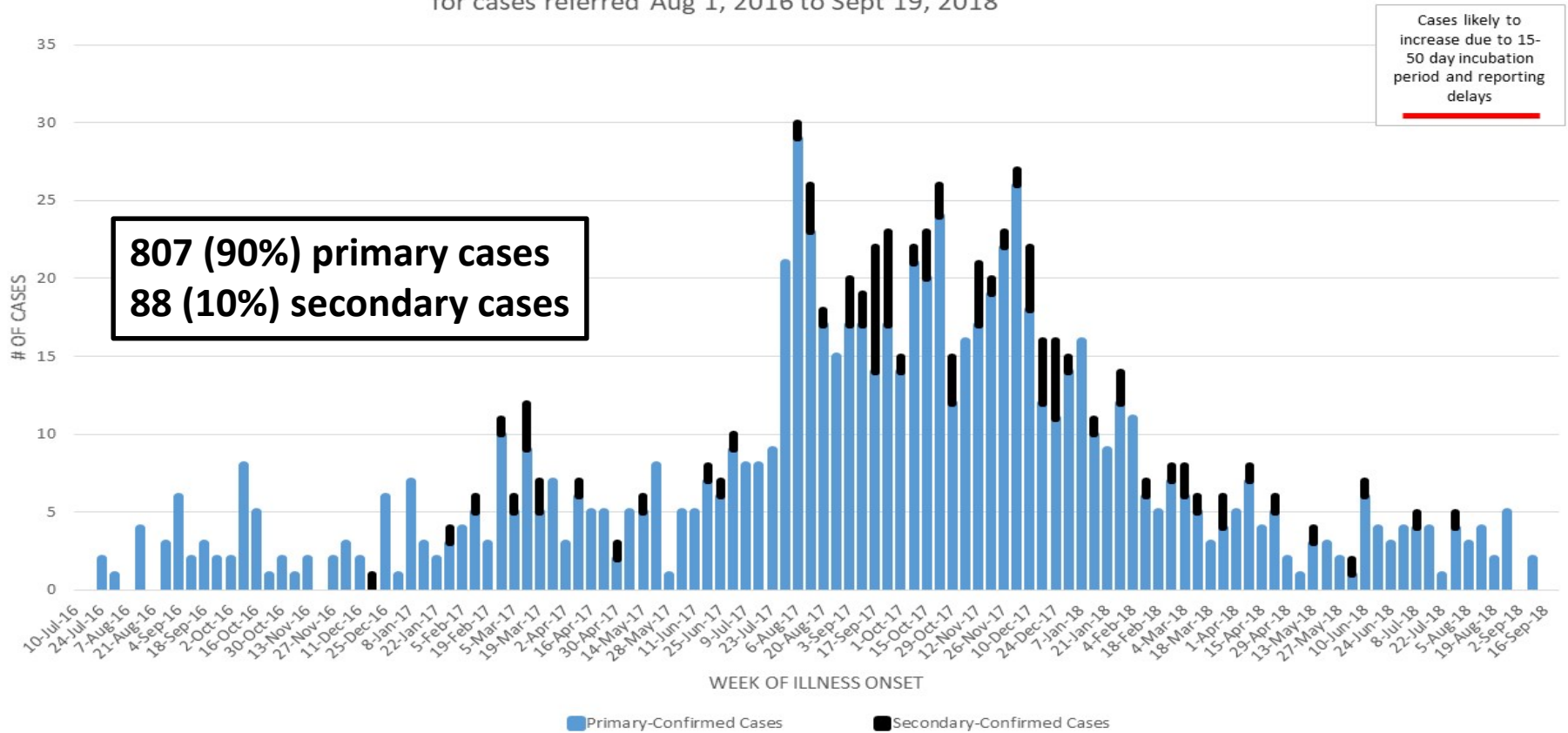
Case Demographics

N = 895

Male, n (%)	584 (65)
Median age (IQR), years	40 (31–53)
Race*	
White or Caucasian, n (%)	663 (75)
Black or African American, n (%)	185 (21)
Other, unknown, or multiracial, n (%)	34 (4)

***Information on race available for 882 people**

Confirmed Hepatitis A Case Onset by Week for the Michigan Outbreak for cases referred Aug 1, 2016 to Sept 19, 2018



*if illness onset was not identified first lab collection date was used in place

Characteristics of Hospitalized versus Non-hospitalized Cases

Characteristics	Hospitalized (n = 719)	Non-hospitalized (n = 172)
Male, n (%)	470 (65)	113 (66)
Median Age (IQR), years	40 (32–54)	37 (30–50)
Geographic distribution		
Detroit residence	147 (20)	26 (15)
Macomb County residence	182 (25)	40 (23)
Oakland County residence	94 (13)	26 (15)
Wayne County residence	127 (18)	27(16)
Other County residence	169 (24)	48 (28)
Comorbidities		
HCV Coinfection	178 (25)	35 (20)
HBV Coinfection	23 (3)	9 (5)
HIV Coinfection	27 (4)	3 (2)
Reported risk factors*		
Illicit drug use	347 (48)	68 (40)
Homelessness	85 (12)	29 (17)
MSM*	70 (15)	9 (8)
Incarcerated	47 (7)	19 (11)

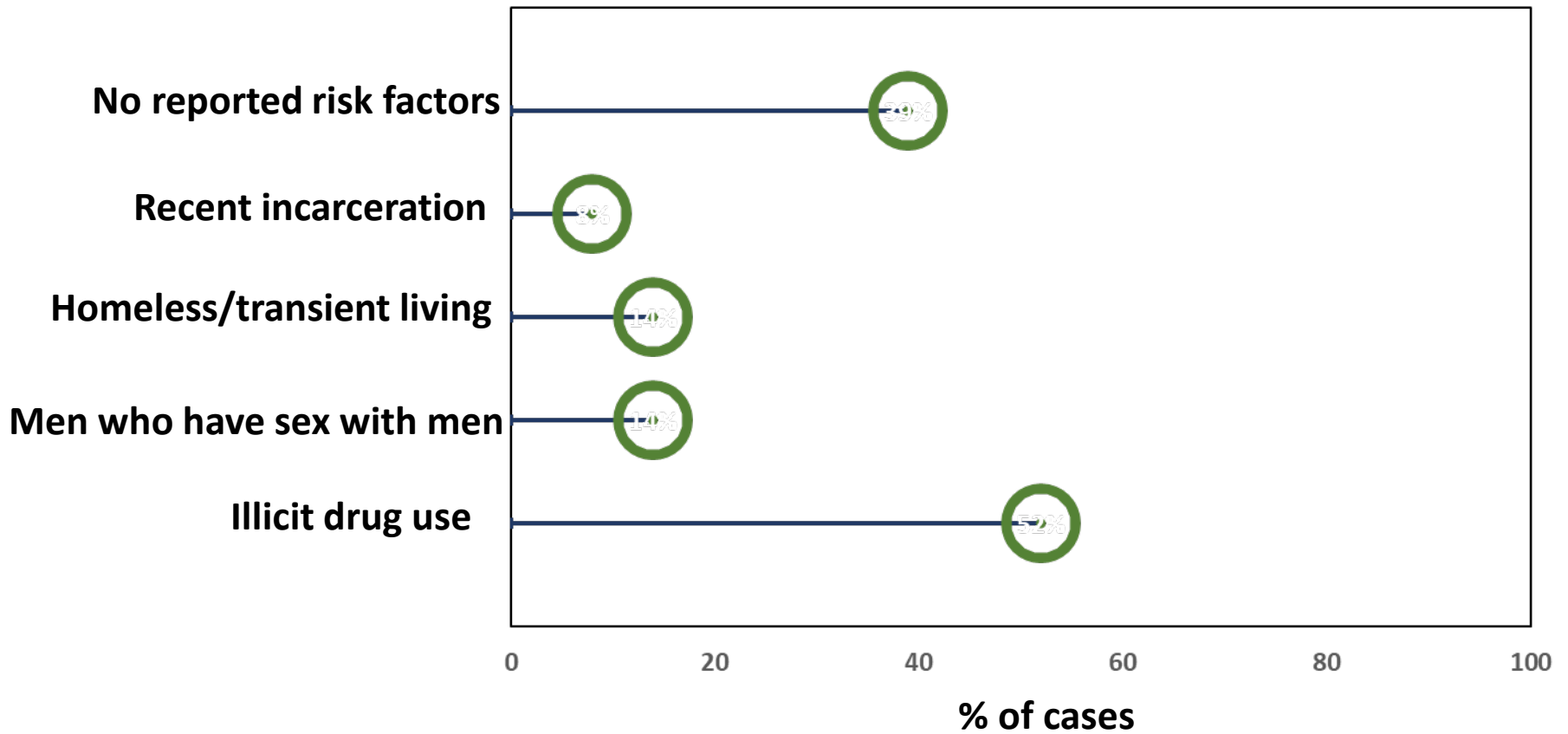
Characteristics of Cases with Fatal versus Non-fatal Outcome

Characteristics	Died (n = 28)	Alive (n = 861)
Male, n (%)	16 (57)	569 (66)
Median Age (IQR), years	58 (53–75)	39.5 (31–52)
Geographic distribution		
Detroit residence	8 (29)	165 (19)
Macomb County residence	4 (14)	218 (25)
Oakland County residence	5 (18)	115 (13)
Wayne County residence	6 (21)	152 (18)
Other County residence	5 (18)	218 (25)
Hospitalized	28 (100)	632 (73)
Comorbidities		
HCV Coinfection	4 (14)	210 (27)
HBV Coinfection	2 (7)	26 (3)
HIV Coinfection	0	30 (4)
Reported risk factors		
Illicit drug use	9 (32)	408 (52)
Homelessness	5 (18)	107 (14)
MSM*	2 (13)	75 (14)
Incarcerated	1 (4)	64 (8)

Characterization of Cases Age < 18 years (n = 7)

Age	Case status	Source of transmission	Symptomatic	Vaccination/IG Status
2 months	Secondary	Household contact	Yes, hospitalized	Received IG as PEP day prior to onset
16 months	Secondary	Household contact	No	Received vaccine as PEP day of + IgM testing
2 years	Primary	Unknown	Yes, hospitalized	Unvaccinated
3 years	Secondary	Household contact	Yes	Unvaccinated, did not receive PEP
16 years	Secondary	Close contact	Yes, hospitalized	Unvaccinated, did not receive PEP
17 years	Secondary	Close contact	Yes, hospitalized	Received vaccine as PEP 12d prior to onset
18 years	Primary	Unknown	Yes, hospitalized	Unvaccinated

Illicit drug use reported by over half of primary cases



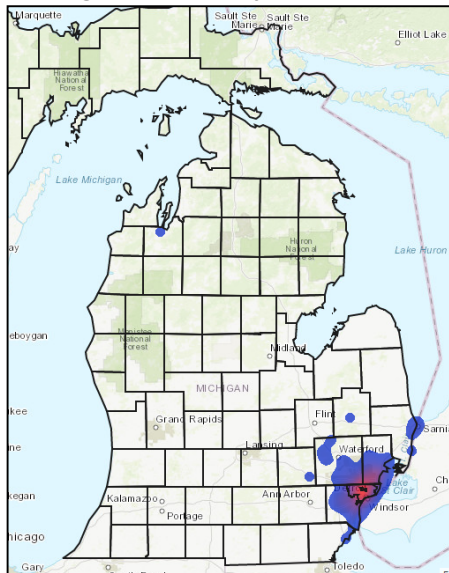
Epidemiologic Summary

Analysis of risk factor cases reported Aug 1, 2016 to Sept 19, 2018

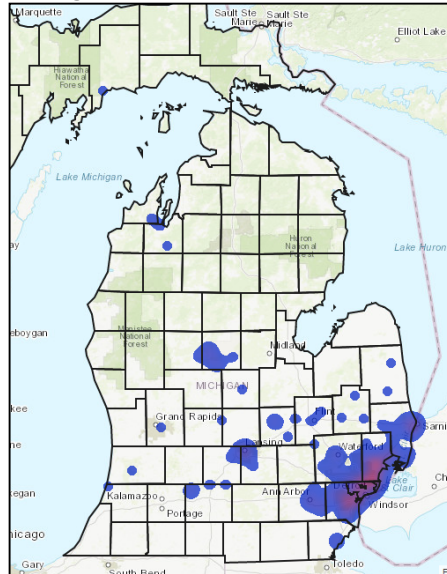
- 30% Documented Substance Use Disorder (SUD) - ONLY (239)
- 1% Homeless or Transient Living - ONLY (11)
- 12% Document SUD + homeless/transient living (99)
- 27% Coinfection with Hepatitis C (214)
- 14% Men Who Have Sex with Men (77)
- 8% Recently Incarcerated (65)
- 6% Coinfection with Hepatitis B (28)
- 5% Food Worker (39)
- 3% Healthcare Worker (23)

Temporal and Geographic Distribution of Outbreak Cases Patients with High Risk Characteristics

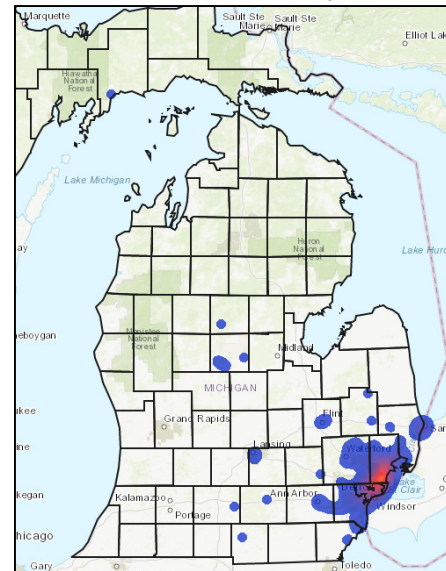
August 2016 – July 2017



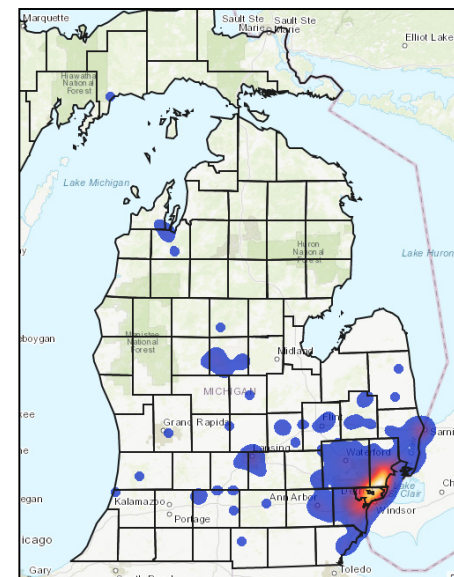
August 2017 – October 2017



November 2017 – January 2018



August 2016 – January 2018



Data source: Michigan Disease Surveillance System, MDHHS.

Guidelines for Management of Hepatitis A, Michigan Outbreak, 2018

PUBLIC HEALTH OUTBREAK RESPONSE

MDHHS and local public health officials are working to:

- Begin case investigation within 12 h after reported to public health
- Provide guidance and data to healthcare community
- Educate the public about hepatitis A and prevention
- Encourage community agencies and healthcare providers to immunize clients with risk factors for hepatitis A
- Increase availability of vaccine and conduct vaccination clinics
- **Increase vaccinations!**

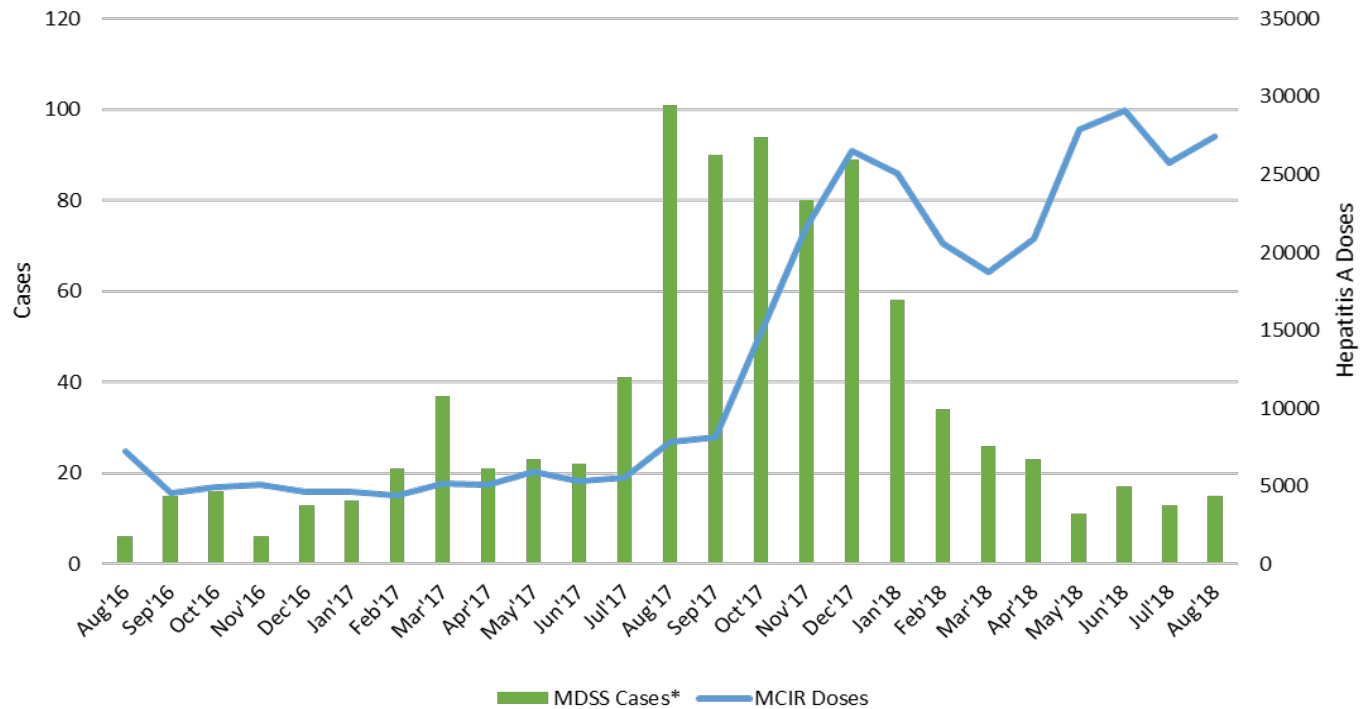
Hepatitis A Vaccination for Outbreak Control, MI Outbreak

- Vaccination is the cornerstone of control of community outbreaks
- Post-exposure prophylaxis alone may not effectively control outbreaks
- Targeted vaccination to the groups at highest risk are the best way to control disease spread
- Primary prevention with adequate vaccination of at-risk groups is preferable

Hepatitis A Vaccination for Outbreak Control, MI Outbreak

- Vaccination in EDs was a major success in San Diego
- Screening tools are available on the MDHHS website and from peers
- Screen for insurance status and risk group
 - Public vaccine available for Medicare, Medicaid, and uninsured
 - Risk groups: substance use, homeless, liver disease, MSM, recent incarceration
- Public doses must be registered in MCIR (MI-AVP)
- Not required to look up the individual in MCIR before vaccinating

HAV cases vs. HAV doses administered to adults by month, August 2016 - August 2018



*N=887 includes primary, secondary, tertiary confirmed or probable cases since August 2016
 MDSS data as of September 12, 2018
 MCIR data as of September 15, 2018

Hepatitis A Vaccine Coverage Estimates



Michigan Children 19 through 35 months as of June 30, 2018, that have at least 2 doses of the Hepatitis A vaccine recorded in the Michigan Care Improvement Registry (MCIR)*		United States Children 19 through 35 months as of 2016 that have at least 2 doses of the Hepatitis A vaccine ever as reported to the National Immunization Survey
<ul style="list-style-type: none"> Coverage Est., 19 through 35 months 2+ Doses 	58.5 %	60.6 %
MCIR DATA		
<ul style="list-style-type: none"> 3-18 years of age, 1 dose coverage 3-18 years of age, 2 dose coverage 	84% 66%	
Michigan Adults 19 years and older as of August 18, 2018, that have at least 1 or 2 doses of the Hepatitis A vaccine ever recorded in the MCIR		United States Adults 19 years and older as of 2015 that have at least 2 doses of the Hepatitis A vaccine ever as reported to the National Health Interview Survey
Coverage Est., ≥19 yrs., 1+ Doses Ever	15.7 %	--
Coverage Est., ≥19 yrs., 2+ Doses Ever	9.4 %	9.5 %

***MCIR Reporting Rules:** Health care providers who are required to report an immunization shall report: ALL immunizations administered to every child born after December 31, 1993 and less than 20 years of age within 72 hours of administration. Adult vaccination record submission to the MCIR is not required though highly encouraged. A 2006 change to the Michigan Public Health Code enabled the MCIR to transition from a childhood immunization registry to a lifespan registry including citizens of all ages in the MCIR.

Getting the Vaccine out: Partners – A Selection

State

MDHHS Public Health Administration
Bureau of Epidemiology and Population Health
Bureau of Family Health Services
Bureau of Laboratories
Bureau of EMS, Trauma, and Preparedness
Bureau of Community-based Services
Bureau of Health and Wellness
Local Health Services
Medical Services
MI Volunteer Registry
External Affairs and Communications
Legislative and Constituent Services
Michigan Department of Corrections
Michigan Department of Agriculture and Rural
Development

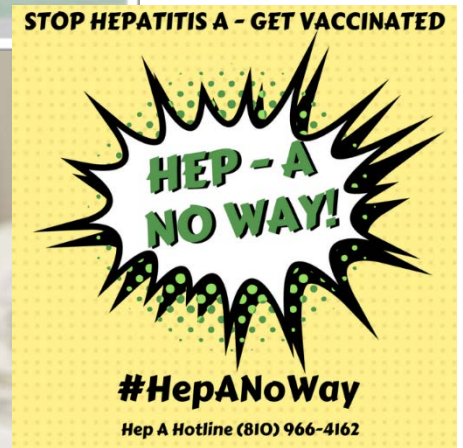
Professional

Michigan Health & Hospital Association
Michigan State Medical Society
Michigan Osteopathic Association
Michigan Association for Local Public Health
Michigan Primary Care Association
Michigan College of Emergency Physicians
Michigan Association of Community Mental Health
Boards
Michigan Association of Family Physicians
Visiting Nurses Association

Partners – A selection (cont'd)

Local & Regional

Local health departments, Clinics
County Jails
Correct Care Solutions
Drug Courts
Regional Healthcare Coalitions and Hospitals
Salvation Army Rehabilitation
Street Medicine Detroit
Neighborhood Service Organization - Tumaini Clinic
Detroit Recovery Project
Capuchin Soup Kitchen
Mariners Inn
Samaritas House
St. John Community Center
Detroit Rescue Mission
Naomi's Nest
Elmhurst Home
Self-Help Addiction Rehabilitation (SHAR)
Community Health Awareness Group (CHAG)
Sacred Heart Rehabilitation Centers
Community Programs, Inc.
Turning Point
Meridian



Waning Hep A Immunity in HIV, Michigan 2018

Possible loss of hepatitis A virus (HAV)
seroprotection noted among people
living with HIV — Michigan, 2018

Potential Waning Hep A Immunity in Patients Living with HIV

- Healthcare providers have reported that people living with HIV who were previously vaccinated against hepatitis A or had positive total HAV antibody testing may be susceptible and at risk for acquiring hepatitis A virus infection

Potential Waning Hep A Immunity in Patients Living with HIV

- 2 hepatitis A cases had positive total hepatitis A virus (HAV) antibody test results upon entry into care for HIV
 - They were not offered HepA vaccination previously because of presumed immunity
 - These providers have instituted re-screening patients who have not had total HAV antibody testing in the past 5 years
- Additional patients have been identified who have seroreverted from positive total HAV antibody status to negative, including those with history of HepA vaccination.

Potential Waning Hep A Immunity in Patients Living with HIV

- Though inconclusive, these early findings are concerning for loss of seroprotection in PLWH who may be susceptible and at risk of acquiring HAV infection.
- Total HAV antibody status should be updated if testing has not been performed during the previous 5 years for patients at risk during this outbreak
 - MSM, illicit substance use, homelessness or in transient living conditions, recent incarceration, and underlying liver disease including hepatitis B or C
- If total HAV Ab testing is negative, regardless of previous vaccination history, MDHHS recommends:
 - the patient completes the monovalent HepA vaccine series
 - the provider documents a post-vaccination response at least 4 weeks after the 2nd dose

Clinician Resources – HAV and HIV

- Clinical experts at Henry Ford Hospital are available through the HIV Consultation Program for hepatitis A questions related to HIV patients.
- Non-urgent questions can be submitted at www.henryford.org/HIVconsult, and will be responded to in 24 to 48 hours.
- For urgent questions, health care professionals should contact the 24-hour consultation line by calling 313-575-0332.

Hepatitis A Outbreak Website

Hepatitis A Southeast Michigan Outbreak

Public health officials and the Michigan Department of Health and Human Services (MDHHS) are continuing to see an elevated number of hepatitis A cases in Southeast Michigan.



Since the beginning of the outbreak in August 2016, public health response has included increased healthcare awareness efforts, public notification and education, and outreach with vaccination clinics for high-risk populations. No common sources of food, beverages, or drugs have been identified as a potential source of infection. Transmission appears to be through direct person-to-person spread and illicit drug use. Those with history of injection and non-injection drug use, homelessness or transient housing, and incarceration are thought to be at greater risk in this outbreak setting. Notably, this outbreak has had a high hospitalization rate.

Southeast Michigan Hepatitis A Outbreak Cases and Deaths as of December 13, 2017*

*Table will be updated weekly by 4:00pm each Friday

Cases	Hospitalizations	Deaths
610	501 (82.1%)	20 (3.3%)

Please note: Table does not include all reported hepatitis A cases in the SE MI outbreak region; only those cases that are identified as outbreak-related. More descriptive data on the current outbreak can be found within the Comprehensive Summary. Data are provisional and subject to change.

In support of efforts, MDHHS has a website for the hepatitis A outbreak that has important and timely information, available at:

➤ www.mi.gov/hepatitisAoutbreak

- The website contains a brief case count, hospitalized cases, and deaths for an at-a-glance review that is updated each Friday.
 - Confirmed cases are also listed out by jurisdiction.
 - A Comprehensive Summary with case demographics and risk profiles is also available
- A full listing of communication documents and educational materials available for download.

Printed Materials

What is happening in Michigan?

Since August 1, 2016, there has been a large outbreak of hepatitis A virus. More than 600 people have been sick in 2017 alone. While many people sick with hepatitis A live in Southeast Michigan, hepatitis A has spread to other parts of our state. People have become very sick with hepatitis A, have been admitted to the hospital, and some have died. We need your help to stop the spread of this infection. For the most recent hepatitis A outbreak information, visit mi.gov/HepatitisAOutbreak

What is hepatitis A?

Hepatitis A is a serious virus. The virus is spread easily from a person spreads sick.

Can hepatitis A be prevented?

Yes, hepatitis A can be prevented!

The best protection is to get vaccinated. The vaccine is safe and highly effective.

Michigan Department of Health and Human Services (MDHHS)
mi.gov/HepatitisAOutbreak

Centers for Disease Control and Prevention (CDC)
cdc.gov/hepatitis

Talk with local public health

If you, or someone you know, do not have health insurance, you will likely qualify for free or low cost vaccines. Speak with your local health department to find out if you qualify.

For local health department information, call the MDHHS Division of Immunization at 517-335-8159.

Local health department information is also available on the Michigan Association for Local Public Health website, visit: <http://mialph.org/directory>

MDHHS
Rev. 2/7-2018

[Brochure – Help stop the spread of hepatitis A in Michigan communities](#)
(updated 2/8/2018)

**Protect yourself from hepatitis A...
Get vaccinated!**

**Protéjase de la hepatitis A...
¡Vacúnese!**

What is hepatitis A?

Hepatitis A is a serious liver disease caused by a virus. The virus is found in the feces (poop) of infected people. 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.

¿Qué es la hepatitis A?

La hepatitis A es una enfermedad grave del hígado causada por un virus. El virus se encuentra en las heces (popo) de personas infectadas. 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.

What are the symptoms of hepatitis A? ¿Cuáles son los síntomas de la hepatitis A?

Nausea and vomiting Náusea y vómito	Stomach pain Dolor estomacal	Loss of appetite Pérdida de apetito	Fatigue / tired Cansancio	Fever Fiebre
jaundice (yellowing of the skin or eyes) ictericia (coloración amarillenta de piel u ojos)				Dark urine, pale stools, and diarrhea Orina oscura, heces blancas, y diarrea

Am I at risk?

You are more likely to be infected with the virus if you:

- have chronic liver disease
- use illegal drugs
- have sex with an infected person
- touch objects or eat food that someone with hepatitis A infection handled

¿Estoy en riesgo?

Es más probable que se infecte con el virus:

- si tiene una enfermedad crónica del hígado
- si usa drogas ilegales
- si tiene sexo con una persona infectada
- tocando objetos o comiendo alimentos que alguien con la infección hepatitis A tocó

Vaccine Clinic / Clínica de Vacunas

www.mi.gov/hepatitisAoutbreak

Adapted with permission from the County of San Diego, Rev. 11/2017

► [Poster – Protect Yourself from Hepatitis](#)
(updated 11/2017)

Available to order in the Clearinghouse at no cost!
(Brochure on backorder, being re-printed)

<http://www.hpclearinghouse.org/>
Click “Enter Here to Place Your Order”
Click “Immunizations”

Item Numbers:
IM160 – Poster
IM161 – Brochure

- Brochures translated in Arabic, Spanish, Chinese, and Bengali available at: www.mi.gov/hepatitisAoutbreak

Outreach Materials

Help Stop the Spread of Hepatitis A

Hepatitis A is spreading in Southeast Michigan. Hepatitis A is a serious liver disease that can easily be passed from person to person. Anyone can get hepatitis A. It spreads when people do not wash their hands before making food and drinks. It also spreads through close contact with people who have hepatitis A. Washing your hands with soap and warm water after using the bathroom, changing a diaper, or before making food and drinks can help stop the spread of hepatitis A.

► [Flyer – Help Stop the Spread of Hepatitis A](#)

Hepatitis A is Spreading

among MSM and persons who inject drugs in Southeast Michigan

HEPATITIS A IS A SERIOUS LIVER DISEASE CAUSED BY A VIRUS THAT IS FOUND IN THE FECES (POOP) OF INFECTED PEOPLE. 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, IT CAN BE DEADLY.

Protect yourself against this outbreak by getting your first dose of hep A vaccine.

Wash Your Hands

- 1. Wet** your hands with clean, running warm water and apply soap.
- 2. Lather** your hands by rubbing them together with the soap. Be sure to lather the backs of your hands, between your fingers, and under your nails.
- 3. Scrub** your hands for at least 20 seconds.
- 4. Rinse** your hands under clean, running water.
- 5. Dry** your hands with a clean towel or paper napkin.

*Alcohol based hand sanitizers are not effective against the hepatitis A virus.

The best way to protect against hepatitis A is to get the hepatitis A vaccine from a healthcare provider about getting vaccinated. If you need help paying for the vaccine, your local health department may have vaccines available for little or no cost.

For more information visit:
www.mi.gov/hepatitisAoutbreak
 or call 1-800-872-2437 M-F 9am-5pm

Protect yourself. Get vaccinated today.



◀ [Flyer – Hepatitis A is in Michigan communities](#)

Hepatitis A is in Michigan communities.



Hepatitis A is a liver disease caused by the hepatitis A virus (HAV). Hepatitis A is spread through contaminated food or water and close contact with persons who are infected. Hepatitis A can affect anyone. Frequent hand washing with soap and warm water after using the bathroom, changing a diaper, or before preparing food can help prevent the spread of Hepatitis A.

The best way to protect against hepatitis A is to get the hepatitis A vaccine. Talk to your health care provider to get the two doses you need for protection. Need help paying for vaccines? Your local health department or your federally qualified health center may have hepatitis A vaccine available for little cost.

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Stop the spread. Get vaccinated today.

www.michigan.gov/immunize



► [Flyer – Hepatitis A is Spreading](#)

Conclusion

- FQHCs/Health Centers can play a major role in reaching high risk adults
- Primary Care must be involved.
- Neighboring states are struggling with outbreaks, it can easily escalate into Michigan again!
- Most importantly remain diligent with ongoing assessment “slow burn”

Questions?