



HEPATITIS A PLANNING

Washington State Department of Health

Presenters



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Communicable
Disease
Epidemiology

Overview

- Epidemiology of hepatitis A
- Hepatitis A vaccine recommendations
- DOH Hepatitis A Workgroup
- Vaccine availability

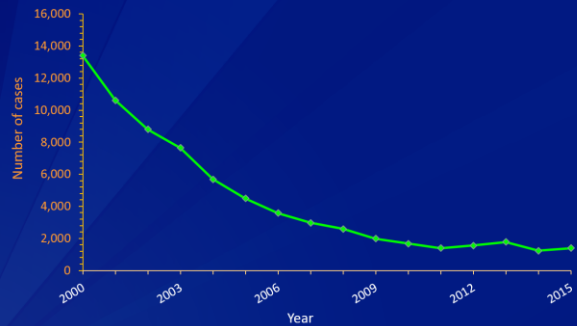
[National Association of County and City Health Officials recorded webinar](#)

Background

- Hepatitis A virus infection is a notifiable condition in Washington
- Local health jurisdictions interview cases to:
 - Determine risk factors for exposure due to reduced hygiene: travel (food, water), childcare, food handler, oral-anal sex, homelessness, drug use, shellfish exposed to sewage
 - Identify and protect exposed contacts: household, sexual, food handling

National Perspective

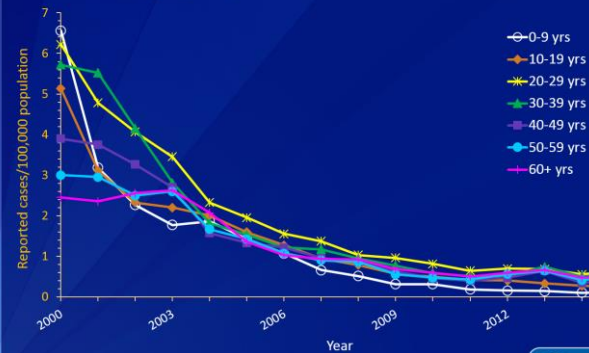
**Figure 2.1. Reported number of hepatitis A cases—
United States, 2000–2015**



Source: CDC, National Notifiable Diseases Surveillance System (NNDSS)



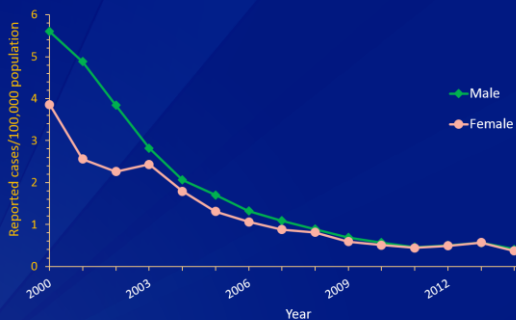
**Figure 2.2. Incidence of hepatitis A,
by age group — United States, 2000–2015**



Source: CDC, National Notifiable Diseases Surveillance System (NNDSS)



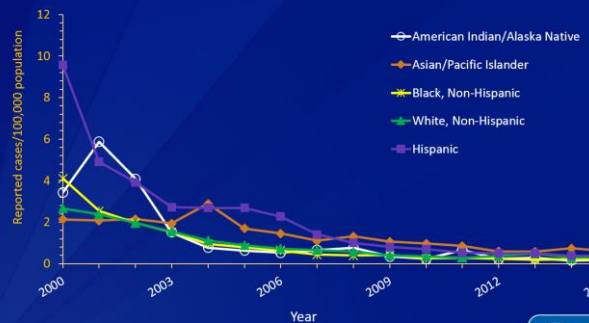
**Figure 2.3. Incidence of hepatitis A,
by sex — United States, 2000–2015**



Source: CDC, National Notifiable Diseases Surveillance System (NNDSS)



**Figure 2.4. Incidence of hepatitis A,
by race/ethnicity — United States, 2000–2015**



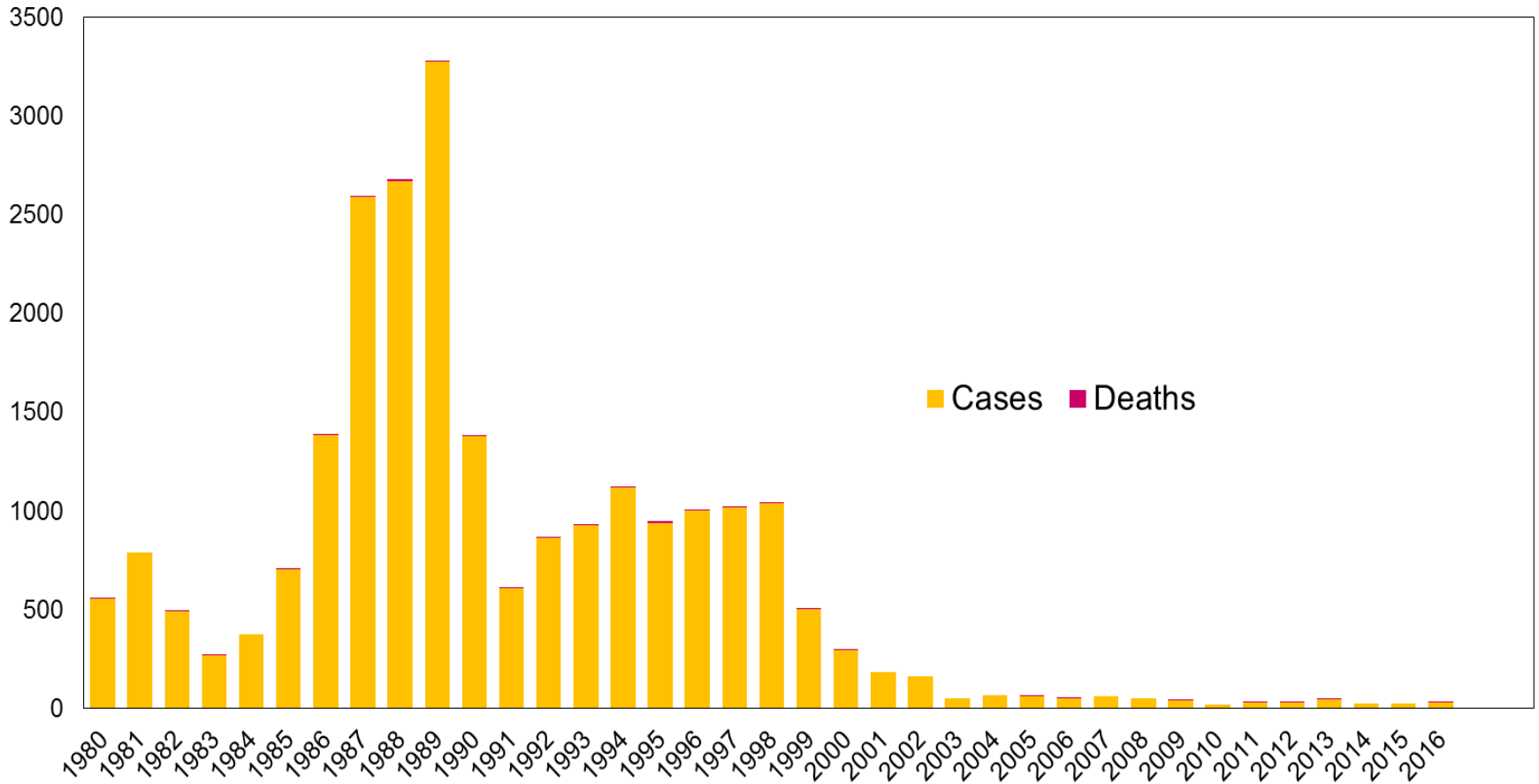
Source: CDC, National Notifiable Diseases Surveillance System (NNDSS)



WA Perspective

- Decrease since peak of 3,273 cases in 1989
 - Childcare outbreaks, periodic restaurant exposures during peak years
- Recently ~30-50 cases and 0-1 deaths yearly
- International travel remains a major risk
- 31 cases reported in 2016, 23 cases in 2017
 - None associated with homelessness or with known outbreaks

Reported Cases, Washington



Outbreaks Starting 2016

- Increased cases in California, Colorado, Kentucky, Michigan, New York City, Utah
- Different virus strains in Southwest and Michigan
- Populations involved in outbreaks:
 - Homeless persons (CA, KY, MI, UT)
 - Persons who use illegal drugs (CA, KY, MI, UT)
 - Persons co-infected with hepatitis B or hepatitis C (UT)
 - Men who have sex with men (CO, MI, NYC)
 - Sex trade (MI)
 - Close contacts of cases (all)
- Affected food handlers in restaurants

Outbreaks Starting 2016

Location	Cases	Hospitalized	Deaths	WA equivalent* cases/deaths
San Diego	577	396	20	3028 cases, 104 deaths
Santa Cruz County	76	33	1	2052 cases, 27 deaths
Utah	124	68	0	295 cases, 0 deaths
Michigan	658	539	22	493 cases, 16 deaths

* Cases as of 1/8/2018; rates in initial location extrapolated to Washington's population

Outbreak Response 2016

- Expand vaccination outreach including teams vaccinating on site (sidewalks) and mass clinics
- Expand hepatitis A vaccination to homeless and those providing them services (sanitation, public safety, shelters, healthcare)
- Expand hepatitis B vaccination of persons who inject drugs to reduce severe disease
- Wash fecally-contaminated sites with bleach
- Expand toilet and hand wash station access
- Provide education and sanitary kits
- Extend hospitalizations to prevent transmission
- Identify contacts for prophylaxis

ACIP Hepatitis A Vaccine Recommendations*

- All children
- Travelers to countries with high rates of hepatitis A
- Family members or caregivers of recent adoptees from countries where hepatitis A is common
- Men who have sexual contact with other men
- People using illicit drugs (injection, non-injection)
- People with chronic liver diseases, such as chronic hepatitis B or hepatitis C infection
- People being treated with clotting-factor concentrates
- People who do research with hepatitis A virus
- Any person wishing to be immune

*People living homeless not currently recommended for routine hepatitis A vaccine

CDC Interim Outbreak Hep A Vaccine Guidance

- Provide hep A vaccine to people who are homeless, use illegal drugs, and others with risk factors who are not yet immunized
- Consider hep A vaccination for anyone with ongoing, close contact with people who are homeless or who use illegal drugs
- Post exposure prophylaxis (PEP)
 - Recommended for unvaccinated people exposed to hep A virus in last 2 weeks
 - Hepatitis A vaccine for healthy people 12 months-40 years
 - IG (hep A immunoglobulin) for healthy people >40 years
 - IG for children <12 months, immunocompromised, chronic liver disease, and people for whom vaccine is contraindicated
 - If IG not available, use hep A vaccine
 - Those with evidence of previous vaccination do not require PEP

References

- [CDC Hepatitis A IG Recommendations](#)
- [WA Hepatitis A Reporting and Surveillance Guidelines](#)

Hepatitis A Workgroup

- Goal
 - Establish a coordinated effort to address informational and educational needs of local and tribal health, healthcare providers, social service providers, food service establishments, and others
- Cross agency workgroup established, including representatives from:
 - Communicable Disease Epidemiology
 - Infectious Disease
 - Immunization and Child Profile
 - Environmental Public Health
 - Communications

Workgroup Accomplishments

- LHJ Assessment Survey
- Questions included:
 - Jurisdiction
 - Name and Role
 - Specific concerns for potential hepatitis A infections in your jurisdiction
 - Actions planned to prevent the spread of hepatitis A in your jurisdiction
 - Support or resources from the Department of Health
 - Do you have information on insurance status for people living homeless, or other high-risk populations in your jurisdiction
 - If we can provide hepatitis A vaccine, and/or Twinrix (combination hepatitis A and B vaccine) for preventive vaccination efforts during the next three months:
 - How many doses do you estimate needing?
 - How would you distribute these doses?
 - What populations would you target?

Workgroup Accomplishments

- Outreach
 - Food safety
 - Needle exchange programs
- Materials
 - Fact sheets
 - Hepatitis A guidelines



Hepatitis A

HEALTH WARNING FOR PEOPLE LIVING HOMELESS

WHAT IS HEPATITIS A?

Hepatitis A (Hep A) is a virus that spreads easily. Many people don't know that they have Hep A so they spread it without knowing. It can cause severe liver disease that can last for months. Sometimes people die from Hep A. Hep A has been spreading in people living homeless in the U.S.



HOW DOES IT SPREAD?

Hep A is in the poop of someone with Hep A. If they haven't washed their hands after using the toilet, tiny bits of poop can get on things they touch. Hep A spreads from:



Touching objects or eating food that someone with Hep A handled

Has Hep A



Having sex with someone who has Hep A



Sharing needles, pipes, or other items to take drugs



Wash your hands with soap and water after using the toilet, and before you cook or eat! Soap and water work best, but if they aren't available, use alcohol-based hand gel.

HOW CAN YOU PREVENT HEP A?




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

Has Hep A



Don't have sex with someone who has Hep A.



Use your own towels, toothbrush and utensils.



Get 2 shots of Hep A vaccine.

State Supplied Adult Vaccine

- ~\$1.2M from CDC to purchase vaccine for **uninsured/underinsured adults and/or outbreak response**
- Federal fiscal year runs October – September.
 - Prioritize funding for vaccine outbreak response
 - Use remaining available for adult vaccine program purchase by September
- Current FFY 2018 Vaccine Budget specific for uninsured adults & outbreaks is \$1.26M



CDC Communication

- Adult hepatitis A vaccine purchased through CDC contracts is limited.
- Allocation is due to limited amount of hepatitis A vaccine on the CDC adult vaccine contract.
- These **constraints do not apply to the pediatric Hepatitis A vaccine supply** in the US.
- More vaccine can be requested if we have an outbreak



CDC Communication

- US-licensed manufacturers of adult Hepatitis A vaccine are exploring options to increase domestic supply and are working collaboratively with CDC to monitor and manage vaccine orders to make the best use of supplies of adult Hepatitis A vaccine during this period of unexpected increased demand.
- Twinrix is available.



Hepatitis A Vaccine Options

- Hepatitis A (on allocation)
 - VAQTA and Havrix
- Hepatitis A and B (available and not on allocation)
 - Twinrix

Brand	NDC	NDC Description	Total Allocated Doses
VAQ...	00006-4096-02	HEP A (ADULT); SYR; 10-pack	0
VAQ...	00006-4841-41	HEP A (ADULT); SDV; 10-pack	0
HAV...	58160-0826-11	HEP A (ADULT); SDV; 10-pack	0
HAV...	58160-0826-52	HEP A (ADULT); SYR; 10-pack	40

Hepatitis A vs. Hep A+B

- Hep A vaccine (Havrix and VAQTA)
 - 2 dose series
 - For adults
 - more than 95% seroconvert after one dose
 - nearly 100% seroconvert after two doses
- Combination Hep A and B vaccine (Twinrix)
 - 3 dose series
 - Hepatitis A component = pediatric dose
 - Hepatitis B component = adult dose

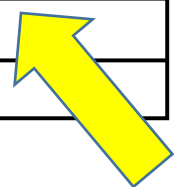
Twinrix (Hep A+B)

14.1 Immunogenicity: Standard 0-, 1-, and 6-Month Dosing Schedule

In 11 clinical trials, sera from 1,551 healthy adults aged 17 to 70 years, including 555 male subjects and 996 female subjects, were analyzed following administration of 3 doses of TWINRIX on a 0-, 1-, and 6-month schedule. Seroconversion (defined as equal to or greater than assay cut-off depending on assay used) for antibodies against HAV was elicited in 99.9% of vaccinees, and protective antibodies (defined as ≥ 10 mIU/mL) against HBV surface antigen were detected in 98.5% of vaccinees, 1 month after completion of the 3-dose series (Table 2).

Table 2. Seroconversion and Seroprotection Rates in Worldwide Clinical Trials

Dose of TWINRIX	n	% Seroconversion for Hepatitis A ^a	% Seroprotection for Hepatitis B ^b
1	1,587	93.8	30.8
2	1,571	98.8	78.2
3	1,551	99.9	98.5



^a Anti-HAV titer \geq assay cut-off: 20 mIU/mL (HAVAB Test) or 33 mIU/mL (ENZYMUN-TEST[®]).

^b Anti-HBsAg titer ≥ 10 mIU/mL (AUSAB[®] Test).

Hep A vs. Hep A+B

Hepatitis A only vaccine	Hepatitis A + B vaccine
2 dose series	3 dose series
~\$28.46 per dose	~\$55.90 per dose
Adults: more than 95% seroconvert after one dose	Adults: Hep A component - 93.8% seroconvert after one dose

Next Steps

- Assess LHJ and Tribal need for adult hepatitis A vaccine for prevention efforts. Survey question:
 - If we can provide Twinrix (combination hepatitis A and B vaccine) for preventive vaccination efforts during the next three months:
 - How many doses do you estimate needing?
 - How would you distribute these doses?
 - What populations would you target?
- Briefing Paper
- Explore options for purchasing hepatitis A vaccine in private market, if funding available

Discussion Questions

- Is there still a high sense of concern or urgency in your jurisdiction in regards to hepatitis A vaccine limitations.
- Assuming we use the limited 317 funds to purchase vaccine for prevention efforts now, what priority should we place on preserving funds for other vaccine needs?



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Hepatitis A Efforts in Pierce County: Preparing, Planning, and Outreach

Immunization Action Coalition of Washington

January 17, 2018

Kayla Scrivner

Tacoma-Pierce County Health Department



Tacoma-Pierce County
Health Department
Healthy People in Healthy Communities

Preparing for Hepatitis A

Key Strategies

1. Partnerships
2. Communications Planning
3. Outreach
4. Timing



Key Partner: Medical Reserve Corps

Long history of service to homeless

- Trusted provider
- Mobile vaccines at shelters, foodbanks, events
- Activated for homeless response
- Can mobilize quickly



Public Health Partnerships

Epidemiology

- Relationships with medical providers, IPs

Public Health Consultant Program

- Relationships with medical providers, shelters, coalitions, community-based organizations

Environmental health

- Food workers, sanitation



Communication Strategies

Formal Communication Plan

- Key messages for medical providers, general public, food workers vulnerable populations
- Health Advisory alerted providers
- Website material for providers and public
- Fact sheet for service providers and food workers, posters for shelters
- Blog, social media posts, news release ready



Messaging

Hep A is spreading in people living homeless in the U.S.

What IS IT?

Hep A:

- Is a virus.
- Can spread easily.
- Can cause severe liver disease.

How it spreads:

Hep A is in the poop of someone with Hep A. If they haven't washed their hands after using the toilet, the germs can spread on things they touch.



Germs from poop.



Sharing contaminated food.



Touching contaminated objects.



Sex with someone who has hep A.



Sharing drug items.

Symptoms of Hep A:



Fatigue, fever.



Nausea, stomach pain, vomiting, no appetite, dark pee, pale poop, & diarrhea.



Jaundice (yellow skin & eyes)

Hepatitis A is more serious for people with hepatitis B or C.

Public health
shifting toward using
more graphics and
plain talk



Outreach to Target Population

Persons living homeless

- Info session with stability site council leadership
- Posters and flyers

Service Providers

- Health advisory and health alert issued
- Presentation at Homeless Coalition
- Provider resource site webpage
- Public health consultant visits to all shelters



Questions



Tacoma-Pierce County
Health Department
Healthy People in Healthy Communities

HEPATITIS A PREVENTION IN KING COUNTY

LIBBY PAGE, MPH
PUBLIC HEALTH – SEATTLE & KING COUNTY

HEPATITIS A

- Serious liver disease caused by hepatitis A virus (HAV)
- Spread from person to person through contact with feces (e.g. food, water or objects contaminated with HAV)
- Symptoms:
 - fever, fatigue, loss of appetite, nausea, vomiting, joint pain
 - severe stomach pains and diarrhea
 - jaundice
- Symptoms appear 2-6 weeks after exposure and usually last <2 months
- An infected person can spread HAV without having symptoms
- Can cause liver failure and death (rare)

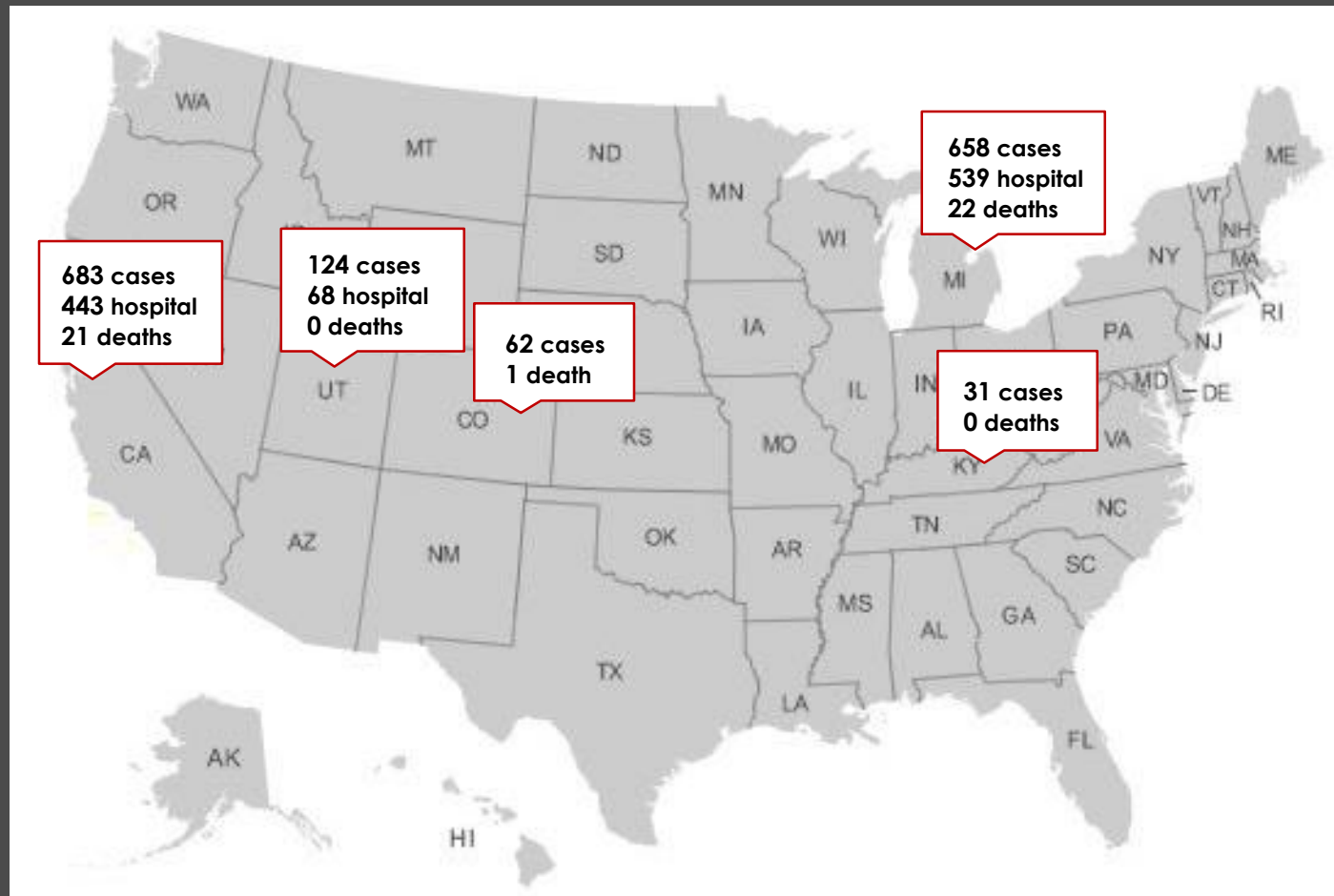
HEPATITIS A RISK FACTORS

- International travel
- Food/waterborne outbreak
- Men who have sex with men
- Injection drug use
- Sexual/household contact with hepatitis A-infected person
- Child/employee in a daycare center
- Contact with a daycare child or employee
- Other contact with hepatitis A patient

HEPATITIS A VACCINES

- Inactivated
- Administered on a 2-dose (monovalent) or 3-4 dose (in combination with HBV) schedule
- Universal childhood vaccination - 2006
- Vaccination recommended for certain groups:
 - All children at age 1 year
 - Travelers to countries where Hepatitis A is common
 - Family and caregivers of adoptees from countries where Hepatitis A is common
 - Men who have sexual encounters with other men
 - Users of recreational drugs
 - People with chronic or long-term liver disease
 - People with clotting-factor disorders

HEPATITIS A OUTBREAKS, 2017-18



HOMELESSNESS IN KING COUNTY

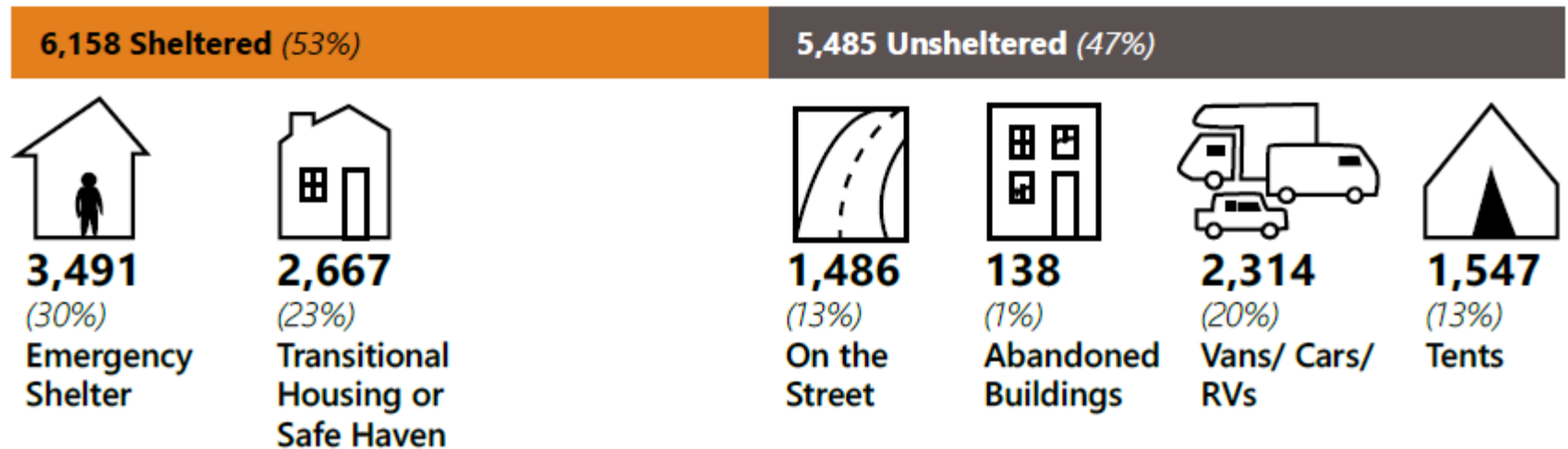
Over 11,600 people living as homeless

- Sanctioned encampments
- Unsheltered in cars, street or unsanctioned encampments
- Shelters or housing run by non-profits



HOMELESSNESS IN KING COUNTY

FIGURE 1. TOTAL NUMBER OF INDIVIDUALS EXPERIENCING HOMELESSNESS



Source: Applied Survey Research. (2017). Seattle/King County Count Us In.

Includes data collected from the following count components: General Street Count, Youth and Young Adult Count, Count Us In Survey, Sheltered Count. For more information on the methodology, please see Appendix 1.

SANCTIONED ENCAMPMENTS



6 sanctioned encampments

- Othello Village
- Interbay – Tent City 5
- Camp Second Chance
- Tent City 3
- Licton Springs Village
- Ballard Nickelsville



<http://homelessness.seattle.gov/>



HEPATITIS A ACTION PLAN

OBJECTIVES

- Monitor **disease surveillance** and assess impacts to community, healthcare system, and at-risk populations
- Develop and distribute public, provider and partner **messaging** to prevent the spread of disease
- Increase **immunization** rates in at-risk populations
- Improve **environmental conditions** at sanctioned encampments





DISEASE SURVEILLANCE

- Conduct surveillance to investigate and identify suspect cases
- Respond to questions from health care providers and the public
- Provide technical assistance to homeless service providers and shelters
- Messaging and call triage algorithm for Washington Poison Center



HEP A RESOURCES

Hepatitis A

HEALTH WARNING FOR PEOPLE LIVING HOMELESS

Public Health
Seattle & King County



WHAT IS HEPATITIS A?

Hepatitis A (Hep A) is a virus that spreads easily. Many people don't know that they have Hep A so they spread it without knowing. It can cause severe liver disease that can last for months. Sometimes people die from Hep A.

Hep A has been spreading in people living homeless in the U.S.



HOW DOES IT SPREAD?

Hep A is in the poop of someone with Hep A. If they haven't washed their hands after using the toilet, tiny bits of poop can get on things they touch. Hep A spreads from:



Touching objects or eating food that someone with Hep A handled



Having sex with someone who has Hep A



Sharing needles, pipes, or other items to take drugs

HOW CAN YOU PREVENT HEP A?



Wash your hands with soap and water after using the toilet, and before you cook or eat! Soap and water work best, but if they aren't



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



Don't have sex with someone who has Hep A.



Hepatitis A

HEALTH WARNING FOR ENCAMPMENT OPERATORS

Public Health
Seattle & King County



WHAT IS HEPATITIS A?

- Hepatitis A (Hep A) is a virus that spreads easily. Many people don't know that they have Hep A so they spread it without knowing.
- It can cause severe liver disease that can last for months.
- Sometimes people die from Hep A.
- Hep A has been spreading in people living homeless in the U.S., especially in crowded encampments without adequate sanitation.



HOW DOES IT SPREAD?

Hep A is in the poop of someone with Hep A. If they haven't washed their hands after using the toilet, tiny bits of poop can get on things they touch. Hep A spreads from:



Touching objects or eating food that someone with Hep A handled



Having sex with someone who has Hep A



Sharing needles, pipes, or other items to take drugs

KEEP ENCAMPMENTS SAFE & CLEAN

Encampment Operators must provide adequate sanitation and hygiene facilities:

- Make handwashing accessible and next to food prep areas and toilets.
- Always stock handwashing stations with soap and water. **Soap and water work best**, but if not available, provide 70% alcohol hand gel.
- Encourage handwashing among residents, especially before eating and after using the toilet.
- Clean toileting areas multiple times a week.
- Stock toilet paper and cleaning supplies (gloves, bleach or bleach wipes, garbage bags) for cleaning toilets.
- Ensure sharps containers are available.
- Anyone with Hep A should NOT prepare or serve food.





HEP A RESOURCES

Communicable Disease Epidemiology and Immunization Section

401 5th Avenue, Suite 1250
Seattle, WA 98104
206-296-4774 Fax 206-296-4803
TTY Relay: 711
www.kingcounty.gov/health

Public Health
Seattle & King County



Health Advisory: Hepatitis A Outbreak Primarily Among Homeless Persons, San Diego, CA - 14 SEPT 2017

Actions requested:

- Be aware that there is a large outbreak of hepatitis A primarily among homeless persons in San Diego, CA, and that hepatitis A outbreaks may occur among populations with close interpersonal contact including in institutional settings, in persons using illicit drugs (injection and non-injection), and MSM. Poor hygiene is also a risk factor for hepatitis A infection.
- Offer hepatitis A vaccine to persons at increase risk for infection, including people with the following risk factors:
 - Illegal drug use, whether injected or not
 - Men who have sexual contact with other men
 - Travel to or residence in [countries where Hepatitis A is common](#)
 - Family members or caregivers of a recent adoptee from countries where hepatitis A is common
 - People who live with someone who has hepatitis A
 - Clotting-factor disorders, such as hemophilia
 - Sexual contact with someone who has hepatitis A
 - Persons with chronic liver disease
- CDC does not currently recommend routine hepatitis A vaccination for homeless persons, however, [hepatitis A vaccine should be offered to anyone who wishes to reduce their risk of infection](#).
- Report suspected cases of hepatitis A infection to Public Health at 206-296-4774.

Background: As of 11 Sep 2017, 421 confirmed or probable HAV cases have been reported in an ongoing local outbreak in San Diego County. The cases had symptom onsets between 22 Nov 2016 and 8 Sep 2017. A total of 292 (69%) of the cases have been hospitalized, and 16 patients (4%) have died. As many as 148 (36%) of the HAV cases are homeless and reported injection or non-injection illicit drug use, 71 (17%) were homeless only, 52 (12%) were illicit drug users only, 96 (23%) were neither homeless nor drug users, and 54 (13%) had an unknown status for homelessness and drug use. Of the 325 cases with test results available for review, 64 (20%) have chronic hepatitis C infection, and 17 (5%) have chronic hepatitis B infection. Despite the fact that the majority of the cases in this outbreak had a known indication for HAV immunization, none had been fully vaccinated prior to becoming ill.

There are several clusters of epidemiologically associated cases, although no specific common food, beverage, or drug sources have been identified. Case clusters have been reported in individuals who have used the same homeless services providers and in the following locations with shared restrooms: jails, single room occupancy hotels, residential drug treatment facilities, group homes, and assisted living facilities. A total of 4 healthcare workers have contracted HAV in this outbreak, as have 6 food handlers, although no 2ary cases have resulted from the individuals working in these sensitive occupations.

RESOURCES

- CDC hepatitis A information for healthcare providers, <https://www.cdc.gov/hepatitis/hav/index.htm>

Video (1)



Training and technical assistance

For homeless service providers

Public Health nurses offer staff training, health education, and consultation to shelters, day centers, transitional housing programs, and other homeless-serving programs in King County. To request any of these services, contact Health Care for the Homeless Network at 206-263-8422.

Get assistance from Health Care for the Homeless Network staff:

Training topics for staff

- **Presentation on Hep A:** Covers Hep A basics, prevention, vaccination and treatment. Intended for providers who work with people who are living homeless.
- **Reducing the Risk of Communicable Diseases in Settings that Serve Homeless People:** Learn about Hepatitis A, B, and C; lice & scabies control; bed bugs; cold & flu season; standard (universal) precautions; skin and wound infections; food borne illness prevention; tuberculosis treatment and prevention.

www.kingcounty.gov/hch

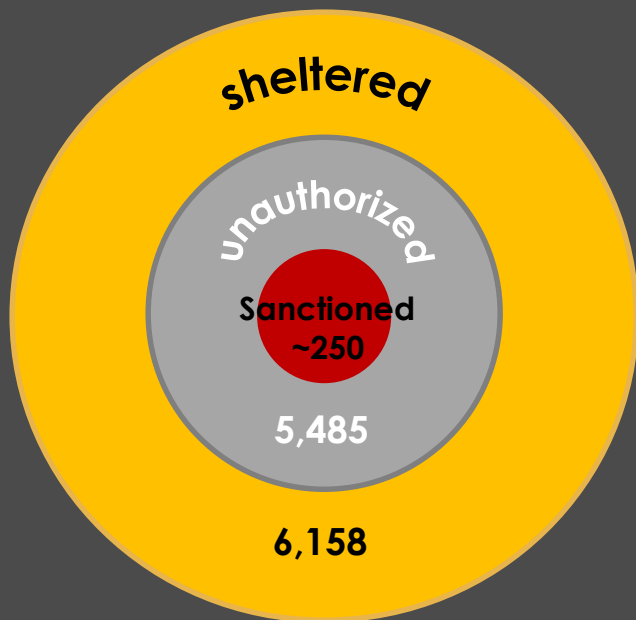
Public Health
Seattle & King County





VACCINATION STRATEGY

DOSES ADMINISTERED OCT–DEC 2017



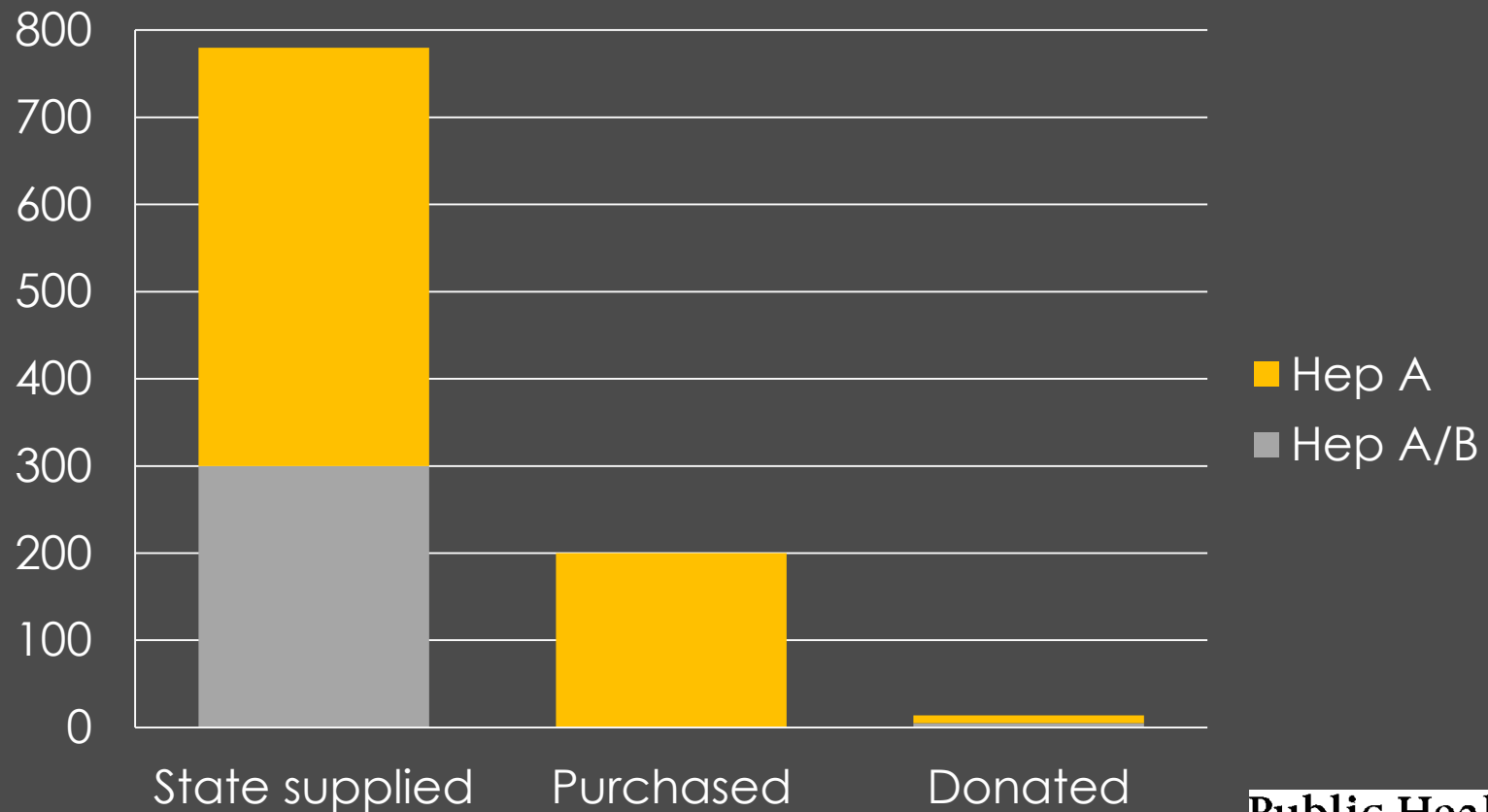
- Mobile Medical Van & HCHN – 296
- Seattle/King County Clinic – 157
- Hepatitis Education Project – 71
- STD Clinic – 51
- Needle Exchange – 17
- Jail Health – 3

595 total doses administered



VACCINATION

Vaccine Inventory By Source





ENVIRONMENTAL HEALTH

- Planning and management guidelines
 - Food handling
 - Garbage management
 - Rodent & pest prevention
 - Pet management
 - Sharps collection & disposal
 - General safety
 - Health & hygiene



SUCCESSSES

- Early planning and preventive measures
- Strong partnerships across PHSKC teams and with City of Seattle HSD → coordinated response
- Ongoing communication, engagement, and commitment to mission
- Development of guidelines and resources for multiple stakeholders

CHALLENGES

- Resource constraints at all levels
- Limited Hep A vaccine supply
- Fragmented & uncoordinated outreach efforts
- Many unknowns (e.g. census information, migration patterns)
- Difficulty reaching people living in unsanctioned encampments

NEXT STEPS

- Coordinate with City of Seattle HSD to develop a budget proposal
- Add appendices to Environmental Health Planning & Management Guidelines for sanctioned encampments
- Explore leverage points with service providers (e.g. Seattle Public Utilities) to vaccinate people living in illegal encampments
- Create a resource (flyer) that provides guidance on caring for ill patients at shelters

QUESTIONS???



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(206) 263-8164