Hepatitis A and Other Disease Threats: Partnering with Public Health

Zack Moore, NC DPH
Christie Caputo, NC DPH
Candice Givens, Durham County DPH
North Carolina Public Health

• Works to promote and contribute to the highest possible level of health for the people of North Carolina

• 3 core functions

• 10 essential public health services
NC Division of Public Health

• Wide range of programs, including several relevant to today’s discussion:
  – NC Communicable Disease Branch
  – NC Immunization Program
  – NC Injury and Violence Prevention

• Collaborates with local health departments, hospitals, community health centers, practitioners, community agencies and organizations throughout the state and nation
North Carolina Local Health Departments

• Services range at each HD but may include:
  – Primary care
  – Communicable disease
  – STD clinics
  – HIV clinics
  – Family planning/women’s clinics
  – Social services/social work
  – Child health clinics
  – Immunizations clinics
  – Health education
  – Pharmacy
  – And more!
NC Communicable Disease Branch

Diseases and Conditions Reportable in North Carolina

Physicians must report these diseases and conditions to the county local health department, according to the North Carolina Administrative Code: 10A NCAC 41A.0101 Reportable Diseases and Conditions (see below). Contact information for local health departments can be accessed at www.nchalhd.org/directors. If you are unable to contact your local health department, call the 24/7 pager for N.C. Communicable Disease Branch (919) 733-3419.

For diseases and conditions required to be reported within 24 hours, the initial report shall be made by telephone to the local health department, and the written disease report be made within 7 days. The reporting rules and disease report forms can be accessed at: http://epi.publichealth.nc.gov/cd/report.html

Diseases in **BOLD** **ITALICS** should be reported immediately to local health department.

<table>
<thead>
<tr>
<th>Reportable to Local Health Department Within 24 Hours</th>
<th>Reportable to Local Health Department Within 7 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DISEASE/CONDITION</strong></td>
<td><strong>DISEASE/CONDITION</strong></td>
</tr>
</tbody>
</table>
HEPATITIS A
Hepatitis A

HOW IS HEPATITIS A SPREAD?

- Not washing hands
- Sex with infected partners
- Eating/ drinking contaminated food
- Recreational drug use

It can also be spread through close contact with someone infected with hepatitis A.

Image: Tennessee Department of Health
Hepatitis A: Symptoms

• Fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay-colored stool, jaundice (yellow skin and/or eyes)

• Usually starts 28 days (range 15-50 days) after exposure
Incidence of hepatitis A, by year
United States, 2006-2016

Reported Number of Cases

Year

Hepatitis A in North Carolina

Reported Cases of Hepatitis A in 2017

© 2019 Mapbox® OpenStreetMap
Hepatitis A Outbreaks

• Began in Michigan and California in 2016
• Spread by person-to-person contact, drug use
• Many cases occurred in persons experiencing homelessness and in detention centers
• January 2017 to April 2018: Over 2,500 cases nationwide
• High hospitalization rate (>50%)
San Diego has started washing its downtown streets with bleach in an effort to combat an outbreak of hepatitis A that has killed at least 15 people and infected nearly 400.

The infectious disease has largely infected homeless people in the coastal California city, and part of the issue is an apparent shortage of public restrooms in areas where the population congregates.

Hepatitis A was first identified in the area in early March, according to the county, and declared a public health emergency earlier this month.

A letter from San Diego County health officials stated that hepatitis A is being spread though contact with a "fecally contaminated environment" as well as person-to-person transmission.
Hepatitis A Outbreaks, 2016–19
Michigan (Aug 2016):
• 913 cases
• 733 hospitalizations (80%)
• 28 deaths
California (Nov 2016):
- >704 cases
- >461 hospitalizations (65%)
- >21 deaths
Utah (Jan 2017):
• 281 cases
• 152 hospitalizations (56%)
• 2 deaths (?)
Hepatitis A Outbreaks, 2016–19

Kentucky (Aug 2017):
- 4,543 cases
- 2,199 hospitalizations (48%)
- 53 deaths
Hepatitis A Outbreaks, 2016–19

Missouri (Sept 2017):
• 283 cases
• 141 hospitalizations (50%)
• 1 death
Indiana (Nov 2017):
• 1,269 cases
• 674 hospitalizations (53%)
• 4 deaths
Hepatitis A Outbreaks, 2016–19

Tennessee (Dec 2017):
- 1,242 cases
- 770 hospitalizations (62%)
- 7 deaths
Hepatitis A Outbreaks, 2016–19

Ohio (Jan 2018):
• 2,155 cases
• 1,322 hospitalizations (62%)
• 7 deaths
Arkansas (Feb 2018):
• 303 cases
West Virginia (Mar 2018):
- 2,479 cases
- 1,227 hospitalizations (50%)
- 21 deaths
North Carolina (Apr 2018):
• 76 cases
• 55 hospitalizations (72%)
• 1 death
Massachusetts (January 2018):
• 350 cases
• 5 deaths
• 48% persons experiencing homelessness/unstable housing
Florida (January 2018):
• 1,293 cases
New Hampshire (November 2018):
- 84 cases
- 53 hospitalized (63%)
- 1 death
Hepatitis A Outbreaks, 2016–19

New Mexico (November 2018):
• Investigating
Louisiana (January 2019):
• 112 cases
• 74 hospitalizations (66%)
• 0 deaths
Georgia (March 2019):
• 170 cases
• 112 hospitalizations (66%)
• 0 deaths
Virginia (2019):
• 55 cases
• 30 hospitalizations
• 0 deaths
Hepatitis A Outbreak in NC, January 1, 2018 – May 13, 2019

As of May 13, 2019:
- 76 cases
- 55 hospitalized (72%)
- 1 death
Outbreak-associated Cases: January 1, 2018 – May 13, 2019
Risk Factors among Outbreak-Associated Cases

- MSM: 19
  - 1 overlapping with Homelessness
  - 10
- Drug Use: 23
  - 5 overlapping with Homelessness
- Homelessness: 1
- No Known Risk Factors: 17
Hepatitis A: Prevention

• **Vaccine preventable!** One dose is 95% effective

• Handwashing is important!
  – Wash for at least 20 seconds, frequently
  – Hand sanitizer is better than nothing, but not efficient

• Safer sex practices: Especially anal play, anal-oral

• Safer injection and drug use practices:
  – Never share works
  – Never share pipes
  – Clean surfaces
Hepatitis A Vaccination in Adults

• Most adults unaware they need shots
• Many physicians forget to offer vaccines to adults (even the recommended ones)
• Percentages of adults who are up-to-date (nationally):
  – 9% for adults ≥19 years,
  – 13% for adults 19-49 years, and
  – 5% for adults ≥50 years
• Among adults 19-49 years with chronic liver conditions, coverage was only 23%
CDC Guidance for Response

• Provide hepatitis A vaccine to those at high risk
  – People experiencing homelessness
  – People who use injection and non-injection drugs
  – Men who have sex with men (MSM)
  – Others with established risk factors who are not yet immunized

• Consider hepatitis A vaccination for anyone with ongoing, close contact with people who are homeless or people who use injection and non-injection drugs

CDC HAN Guidance 6/11/2018
Vaccine Availability Guidance in NC

- Published September 2018

- NC Immunization Program initiated a “liberal use” policy for state supplied hepatitis A vaccine among high risk individuals

- People experiencing homelessness are eligible for free state supplied vaccine regardless of insurance status or vaccination status
NC Public Health Response: Goals

• Identify and implement strategies to increase hepatitis A vaccinations among
  – Persons who use injection and non-injection drugs
  – Persons who are experiencing homelessness
  – Men who have sex with men
  – Persons with chronic liver disease, including chronic hepatitis B and C

• Provide education and increase awareness of hepatitis A among high-risk populations

• Form sustainable partnerships for future public health collaborations
Did you know **HEPATITIS A** liver infections are on the rise in North Carolina? If you are experiencing homelessness, use drugs or are a man who has sex with men, you are most at risk.

Hepatitis A is spread when small, undetectable amounts of feces (poop) get into your mouth. You can get hepatitis A:

- By swallowing food or drink contaminated with the virus.
- Through oral or anal sex.
- By touching surfaces or objects contaminated with the virus, then putting your hands in your mouth.

Hepatitis A can also be spread by sharing drug injection equipment.

Ask your doctor or local health department about the hepatitis A vaccine.

Protect yourself. Protect others. Get vaccinated.
Hepatitis A Response: Partnership

- Local health departments
- Community-based organizations
- Clinicians
- Other state agencies
  - Public Safety
  - Mental health/substance abuse
  - State-operated facilities
- Others
What Can We Do?

• Establish communication with your local health department; identify who already works with your clients
• Consider partnering on
  – Vaccine clinics
  – Testing events
  – Homeless health clinics
• Provide education
• Refer your clients to the local health department for vaccine, testing, and other services
• Other?
OTHER COMMUNICABLE DISEASE CONCERNS
Other Infectious Complications of Drug Use

• HCV, HBV and HIV

• Bacterial infections
  – Endocarditis
  – Sepsis
  – Bone/joint infections
  – Invasive group A strep
  – Wound infections

• etc.
HEPATITIS C
A SILENT EPIDEMIC

The hepatitis C virus is a leading cause of liver disease, liver cancer, and liver transplants, placing a huge burden on patients, their families, caregivers, and the healthcare system.

The Growing Problem of Hepatitis C in the U.S.

>150% increase in new cases in recent years

3.5 MILLION people are living with hepatitis C

59 years is the average age people are dying

More persons die from hepatitis C than all of the 60 other reported infectious disease combined. According to available data, at least 20,000 deaths occur each year - which is believed to be an underestimate of the actual number.

Hepatitis C Virus is Very Infectious

Hepatitis C virus spreads when blood from an infected person enters the body of someone who is not infected.

Hepatitis C is 10 times more infectious than HIV.

At least 50% of persons living with hepatitis C do not know they are infected.

Testing is Key

A blood test is the only way to know if a person has been infected.

Testing for the hepatitis C virus is recommended for certain individuals, including those who:

Source: www.cdc.gov
Acute HCV Rates in North Carolina and United States, 2000–2017

*HCV case definition changed in 2016


*Case definition for HCV changed in 2016.
HEPATITIS B: ARE YOU AT RISK?

HEPATITIS B IS A SERIOUS & DEADLY DISEASE

Hepatitis B virus infects people of all ages & as many as 2.2M people in the US are chronically infected.

Up to 40% of chronic infections lead to cirrhosis, liver failure, and liver cancer, which may lead to death.

HEPATITIS B IS EASILY SPREAD

Hepatitis B is 50 to 100X more infectious than HIV and can live outside the body for 7+ days and still cause infection.

2/3 of those living with chronic hepatitis B do not know they are infected but can still spread the virus to others.

http://www.nfid.org/idinfo/hepb
Acute HBV Rates in North Carolina and United States, 2000–2017

Tuberculosis in North Carolina
TB: Transmission

• Caused by bacteria called Mycobacterium tuberculosis

• Spreads through droplets in the air when a person with active disease sings, coughs, sneezes or speaks

• Transmitted when a person is in VERY CLOSE CONTACT with someone who is sick with TB disease over a prolonged period of time
Tuberculosis (TB) Disease: Only the Tip of the Iceberg

There are two types of TB conditions: TB disease and latent TB infection.

People with TB disease are sick from active TB germs. They usually have symptoms and may spread TB germs to others.

People with latent TB infection do not feel sick, do not have symptoms, and cannot spread TB germs to others.

But, if their TB germs become active, they can develop TB disease.

Millions of people in the U.S. have latent TB infection. Without treatment, they are at risk for developing TB disease.

Image: www.cdc.gov
North Carolina TB Cases, 1997-2018

Data Source: NC EDSS; data run 3/15/2019
North Carolina TB Cases, 2014-2018

Data Source: NC EDSS; data run 3/15/2019
Tuberculosis and Homelessness

- Homelessness is referred to as an unstable housing situation
- TB Program is concerned with any homeless episodes in a lifetime
- Cases have remained relatively stable over the years

Homelessness Among NC TB Cases, 2014-2018

Data Source: NC EDSS; data run 3/15/2019
Resources and Contacts

• American Lung Association (ALA)
  – Provides incentives and enablers to local health departments
  – Covers housing cost, utilities and other items for select patients

• Centers of Excellence (COE)
  – 4 across the nation
  – Southeastern National Tuberculosis Center (SNTC) – services NC
  – Educational material and trainings
  – Medical consultations
  – Provide support for specialty medications during treatment

• Local Health Departments
  – Provide screening services
  – Provide treatment and follow up for TB infection and disease

• NC TB Program Staff
  919-755-3184
  • TB Medical Director and Controller
    • Dr. Jason Stout
  • Medical Consultation Unit Manager
    • Dr. Jean-Marie Maillard
  • TB Nurse Consultants
    • Myra Allen
    • Daniela Ingram
    • Lynn Kearney
    • Julie Luffman
  • TB Registrar
    • India Solomon
  • Epidemiologist
    • Jenni Wheeler
What Now?

PARTNERSHIPS
Durham Health Department

Candice Givens, MSW, LCSWA, LCASA
Hepatitis C Bridge Counselor
Durham County Department of Public Health
Durham Health Department

Routine Opt-out HIV and HCV testing (with reflex RNA) and linkage to care:

- DCoDPH Clinics
- Durham County Detention Center and Community Outreach
- Durham County Department of Social Services
- Lincoln Community Health Center
- Durham County Safe Syringe Program
Homeless with Chronic HCV

- **87%** Housed
- **13%** Homeless

N= 796

Site of Test for Homeless w/ Chronic HCV

- FQHC: 42%
- Jail: 42%
- Outreach: 6%
- Clinics: 7%
- DSS: 3%

- FQHC
- Jail
- Outreach
- Clinics
- DSS
Lincoln Community Health Center

• FQHC in Durham
• Primary care and behavioral services
• Partnered with FOCUS in 2016 for HCV testing and linkage to care support
• Started with 2 treating providers, now 6
• One provider at their homeless shelter clinic
Lincoln Community Health Center-
Healthcare for the Homeless Clinic

- On the campus of Urban Ministries-
  Durham homeless shelter
- Serves those who are living on the streets,
  in emergency shelters, or in unstable or
  transitional housing*
- Services
  - Chronic health conditions
  - Mental health & substance abuse
    screenings/ services
  - GYN care
  - Medication assistance
  - Urgent care
  - Other services*
- Walk-in or by appointment
- $1 copay*
Contact Us

Candice Givens, MSW, LCSWA, LCASA
Durham County Bridge Counselor
cgivens@dconc.gov

Lincoln Community Health Center-
Healthcare for the Homeless
412 Liberty St., Durham, NC
919-808-5640