NCSL NATIONAL LEGISLATIVE SUMMIT
CONNECTING OPIOIDS AND INFECTIOUS DISEASES PRECONFERENCE

Charlie Severance-Medaris
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National Conference of State Legislatures
Welcome!
The National Conference of State Legislatures mobile meeting app is your guide to NCSL's largest meetings, including the annual Legislative Summit and the NCSL Capitol Forum. The app offers a full agenda of sessions, list of speakers, areas for notes and a meeting/personal calendar synced with your mobile device.
MEETING SESSIONS

- **Sunday, August 4th**
  - Connecting the Dots: Infectious Disease Consequences of the Opioid Crisis
  - State Strategies: Screening and Intervention
  - State Strategies: Linkage to Care
  - State Strategies: Responding to Local Outbreaks
Michael Williams, Public Health Analyst
Centers for Disease Control and Prevention
SELF CARE!

- Walking Challenge
- Healthy food options
- Feel free to stand or stretch!
- Breaks

“To maximize your wellness, we’re going to work out for two hours every day!”

#111195781
INTRODUCE YOURSELF

- Name and Title
- Your State
- Fun Fact
Connecting the Dots: Infectious Disease Consequences of the Opioid Crisis

National Conference of State Legislatures
2019 Legislative Summit, Pre-Conference Workshop
August 4, 2019

Sara C. Zeigler, MPA
Associate Director of Policy
National Center for HIV, Viral Hepatitis, STD and STB Prevention
US Centers for Disease Control and Prevention
Massive increase in opioid deaths

SOURCE: Data retrieved on June 6, 2019 from CDC WONDER

![Graph showing the increase in opioid deaths over time.](image)
Hepatitis C (HCV) Infections Increased and HIV Infections Leveled in Shadow of Opioid Crisis

Estimated HCV Infections

HIV Infections

CDC. Diagnoses of HIV Infection in the United States and Dependent Areas, 2017. 2018
Geographic correlation of opioid prescriptions, drug overdose deaths, and HCV infections

Drug overdose death rates, by county, 2016

Amounts of opioids prescribed, by county, per 100 people, 2017

Reported New HCV Infections, 2016

Source: CDC Surveillance Data
CDC Responding to Widespread Outbreaks of Hepatitis A Across the United States

State-Reported Hepatitis A Outbreak Cases as of July 5, 2019

Some HIV progress among PWID; opioid crisis threatens this progress

5% of HIV infections in the U.S. are among PWID

Infections decreased by 34% among all women with an infection attributed to injection drug use 2010–2016

While HIV infections from injection drug use have steadily declined, the nation’s opioid crisis threatens this progress.
People who use drugs (including opioids) have high rates of unsafe sex practices, elevates risk for STDs

Proportion of P&S Syphilis Cases Reporting **Meth** Use

- increased among women and MSW, but decreased among MSM.

Proportion of P&S Syphilis Cases Reporting **Heroin** Use

- nearly doubled among women, but remained stable among MSW and MSM.

Proportion of P&S Syphilis Cases Reporting **Sex with a PWID**

- increased among women and MSW, but remained relatively stable among MSM.

P&S – Primary and secondary
Other Severe Infectious Consequences to Opioid Use

• In 2013, there were 12,600 cases of endocarditis
• Invasive MRSA among PWID ↑ 124% from 2011 to 2016
• Hospitalizations due to substance-use related infections cost over $700M annually (not including HIV and viral hepatitis)

References:
46 states, DC, and Puerto Rico have documented they have areas experiencing or at risk for increases of HCV/HIV
What Can We Do?

- Prevent Harmful Opioid Use
- Screen and Treat Infectious Diseases
- Treat Substance Use Disorder
- Prevent Infectious Diseases
What do Comprehensive SSPs Provide?

- Access to sterile needles and syringes
- Safe disposal of used injection equipment
- Services – or referrals to services – including
  - Substance use disorder treatment
  - Screening and treatment for infectious diseases
  - Naloxone distribution
  - Vaccinations
  - Social, mental health, and other medical services
SSPs are Tailored to the Communities They Serve

- Nearly 30 years of research demonstrates that SSPs protect the public’s health
- Many support services may be operated in partnership with federal government funding
SSPs Prevent Overdose Deaths

- SSPs provide education and training on how to prevent, recognize, and respond to a drug overdose
- SSPs offer referrals to medication-assisted treatment (MAT) for substance use disorder
- SSPs offer naloxone, a medication used to reverse overdose and prevent death
SSPs Prevent Transmission of Blood-Borne Infections

- Nonsterile injections can lead to serious health consequences.
- Access to sterile injection equipment can help prevent blood-borne infections (e.g., hepatitis B, hepatitis C, HIV) as well as skin infections and endocarditis.
- Health care provided at SSPs can catch problems early and provide easy-to-access treatment.

Providing testing, counseling, and sterile injection supplies helps prevent outbreaks of other diseases. For example, SSPs are associated with a 50% decline in the risk of HIV transmission.
SSPs Help People Overcome Substance Use

People who inject drugs who regularly use an SSP are

- **5 times** as likely to enter treatment for a substance use disorder
- **3 times** more likely to stop using drugs than those who don’t use the programs
SSPs Support Public Safety

- SSPs partner with law enforcement, providing naloxone to local police departments to help them respond and prevent death when someone has overdosed.
- SSPs help protect first responders and the public by
  - Providing safe needle disposal
  - Reducing the presence of needles in the community

Law enforcement benefits from reduced risk of needlesticks, no increase in crime, and the ability to save lives by preventing overdoses.

When two similar cities were compared, the one with an SSP had 86% fewer syringes in places like parks and sidewalks.
Legal Strategies for a Policy Enabling Environment

- The creation and implementation of laws can be used to achieve public health objectives
- State laws can facilitate access to clean injection equipment and other services for persons who inject drugs
- Laws related to authorization of SSPs; drug paraphernalia, or the retail sale of Syringes/Needles to PWID
State Laws Related to the Authorization of SSPs

- State explicitly authorizes SSPs (usually requires local action)

- State authorizes SSPs in certain circumstances (e.g. pilots, public health emergency, high burden areas)

- State legalizes existing SSPs
State Laws Related to Drug Paraphernalia

- State specifically exempts syringes/needles from definition of drug paraphernalia
- State decriminalizes syringes/needles for participants of SSP or other circumstances
- State has a “disclosure law”
State Laws Related to Retail Sales of Syringes/Needles to PWID

- State allows retail sale of syringes/needles without a prescription to PWID
- State explicitly prohibits the retail sale of syringes/needles to PWID
- State law is silent
State Example: Nevada

1. Laws related to authorization of SSPs
2. Laws related to drug paraphernalia
3. Laws related to the retail sale of syringes/needles to PWID
Materials available

- Suite of materials available now at www.cdc.gov/ssp
- Technical package of SSP implementation
- Technical assistance
Thank you & time for questions

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Opioids and Infectious Diseases: Screening and Intervention

NCSL 2019 Legislative Summit
Connecting Opioids and Infectious Diseases Preconference
Sunday, August 4, 2019

R. Paul McClung, MD, LCDR USPHS
Division of HIV/AIDS Prevention
US Centers for Disease Control and Prevention
How do we tackle these infectious disease challenges?

- This is not an easy task.
  - Multiple complex infectious diseases
  - Numerous complicating factors
    - Difficult-to-reach population
    - Substance use disorder
    - Housing instability, incarceration

- The stakes are high.
  - A generational challenge for many affected by the opioid crisis
  - Immense cost for individuals, communities, and society
How do we tackle these infectious disease challenges?

- Remaining sessions today will address three key areas:
  - Screening and Intervention
  - Linkage to Care
  - Responding to Local Outbreaks
Why is infectious disease screening so important?

1. Diagnosis is the first step towards treatment
2. Many of these infectious diseases are silent
3. Undiagnosed infection can promote additional transmission

**HIV**
- 1.1 million infected
- 14% unaware

**Hep C**
- 2.4 million infected
- 44% unaware

**Hep B**
- 862,000 infected
- 66% unaware
What do we mean by “intervention”?  

- Goal: reducing infectious disease risk for the vulnerable
  - Reducing injection drug use
  - Reducing unsafe reuse or sharing of needles/syringes
  - Reducing unsafe sexual behaviors
  - Vaccination (hepatitis A and hepatitis B)
  - Improving access to diagnosis and treatment
Achieving success in screening and intervention

- Comprehensive syringe service programs (SSPs)
- Medication-assisted treatment for substance use disorder
- Key interventions
  - Screening & vaccination
  - Decrease unsafe injection practices
  - Patient-centered approach to care
- Address barriers
  - Stigma
  - Drug policy
Syringe Services Programs: More than Just Needle Exchange

- Sterile syringes & equipment
- Health education
- Build strong relationships
- Sexual risk reduction & PrEP
- Infectious disease testing & vaccination
- Counseling & referrals
- Treatment for substance use disorder
SSPs prevent transmission of blood-borne infections

- Result of comprehensive services that reduce risk from unsafe injection practices
- Health care provided at SSPs can catch problems early and provide easy-to-access treatment

HIV & Hepatitis C Transmission

50%
MAT reduces infectious disease transmission

- Medication-assisted treatment (MAT) for opioid use disorder helps to stabilize physical dependency and lower the risk of overdose and unsafe injection.
- MAT is the most effective form of treatment for preventing overdose, preventing infectious disease transmission, and helping people decrease opioid use.
- MAT examples: Buprenorphine, Suboxone, Methadone.
MAT reduces infectious disease transmission

- Medication-assisted treatment (MAT) for opioid use disorder helps to stabilize physical dependency and lower the risk of overdose and unsafe injection
- MAT is the most effective form of treatment for preventing overdose, preventing infectious disease transmission, and helping people decrease opioid use
- MAT examples: Buprenorphine, Suboxone, Methadone

**Graph:****

- **MAT**
  - HIV & Hepatitis C Transmission: 50%

- **SSPs + MAT together**
  - HIV & Hepatitis C Transmission: 74%
Achieving success in screening and intervention

- Comprehensive syringe service programs (SSPs)
- Medication-assisted treatment for substance use disorder
- Key interventions
  - Screening & vaccination
  - Decrease unsafe injection practices
  - Patient-centered approach to care
- Address barriers
  - Stigma
  - Drug policy
1. Infectious disease screening & vaccination

- People who inject drugs and their partners need to be screened and re-screened for multiple infectious diseases
- Guided by evidence-based screening recommendations for each disease
  - HIV testing & pre-exposure prophylaxis (PrEP)
  - Hepatitis C testing
  - Hepatitis B testing & vaccination
  - Hepatitis A vaccination
  - Sexually transmitted infection testing
- Skin/soft tissue infection screening & wound care

SSPs
Provide consistent access to screening & vaccination
1. Infectious disease screening & vaccination

HIV
- People who inject drugs should be tested at least once a year
- Pre-exposure prophylaxis (PrEP) can protect people from becoming infected with HIV

Hep C
- Testing is recommended for all people who inject drugs
- Hepatitis C can be cured with a few weeks of oral medications

Hep B
- Testing and vaccination recommended for all people who inject drugs
1. Infectious disease screening & vaccination

- Hepatitis A vaccination is recommended for people who inject drugs
- Sexually transmitted infections: discuss and offer testing
- Skin/soft tissue infections: discuss and offer testing
  - Complications can include abscesses, bloodstream infections, bone or joint infections, and endocarditis

SSPs
Provide consistent access to screening & vaccination
2. Decrease unsafe injection practices

- SSPs and MAT help people to reduce or stop injecting
2. Decrease unsafe injection practices

- SSPs and MAT help people to reduce or stop injecting
- Intervene to stop reuse and sharing of syringes
  - Ensure access to sterile syringes and injection equipment
    - SSPs, pharmacies, and health care

A *new, sterile* syringe for *every* injection. *Every time.*
2. Decrease unsafe injection practices

- SSPs and MAT help people to reduce or stop injecting
- Intervene to stop reuse and sharing of syringes
  - Ensure access to sterile syringes and injection equipment
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### Changes in Injection Behavior, Scott County, IN – 2016

<table>
<thead>
<tr>
<th></th>
<th>Prior to SSP</th>
<th>After SSP opened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any syringe sharing</td>
<td>75%</td>
<td>21%</td>
</tr>
<tr>
<td>Injected &gt;1 time with a syringe before disposal</td>
<td>86%</td>
<td>44%</td>
</tr>
<tr>
<td>Disposal of used syringe in medical waste container</td>
<td>17%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Dasgupta et al, *AIDS and Behavior*, 2019
2. Decrease unsafe injection practices

- SSPs and MAT help people to reduce or stop injecting
- Intervene to stop reuse and sharing of syringes
  - Ensure access to sterile syringes and injection equipment
    - SSPs, pharmacies, and health care
  - Remove barriers to syringe access
    - Restricting the supply of syringes does not stop injection
    - Some SSP policies can severely limit effectiveness
  - Provide counseling & education about safe injection practices and infectious disease risk
3. Patient-centered approach to providing care

- Engage people who inject drugs wherever they touch our systems
  - Healthcare: primary care, health centers, and hospitals
    - Identify and screen all people who are at risk
    - Example: emergency department screening done by nurses
  - Community social service organizations: often know the population best
  - Jails and Prisons: infectious disease prevalence is very high
  - Substance abuse facilities: important opportunity

To help people who inject drugs to succeed, *we must meet them where they are.*
3. Patient-centered approach to providing care

- Engage people who inject drugs wherever they touch our systems
  - Healthcare: primary care, health centers, and hospitals
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  - Community social service organizations: often know the population best
  - Jails and Prisons: infectious disease prevalence is very high
  - Substance abuse facilities: important opportunity
    - Only 28% of facilities reported testing for HIV and hepatitis C (2017)

Source: The National Survey of Substance Abuse Treatment Services, SAMHSA
3. Patient-centered approach to providing care

- Adapt to better reach this vulnerable population
  - Consider hours and locations that best meet patient needs
  - Consider mobile services
  - Programs must be tailored to meet the needs of your community
    - Opportunities for creativity
    - Example: Quick Response Teams (WV)

To help people who inject drugs to succeed, we must meet them where they are.
Achieving success in screening and intervention

- Comprehensive syringe service programs (SSPs)
- Medication-assisted treatment for substance use disorder
- Key interventions
  - Screening & vaccination
  - Decrease unsafe injection practices
  - Patient-centered approach to care
- Address barriers
  - Stigma
  - Drug policy
Stigma is the enemy of public health

- Dehumanizes people struggling with substance use disorder
- Discourages development of programs needed to help
- Pushes people to the margins of society
- Reducing stigma is essential for reducing infectious disease transmission
  - Engage community leaders
  - Community programs (schools, faith community, media)
Policy can also impact infectious disease transmission

- High incarceration rates: correctional facilities have very high rates of disease
- Paraphernalia laws: increase unsafe sharing and unsafe disposal of syringes
Policy can also impact infectious disease transmission

- High incarceration rates: correctional facilities have very high rates of disease
- Paraphernalia laws: increase unsafe sharing and unsafe disposal of syringes

“We found that repressive drug policing greatly contributes to the risk of HIV linked to injection…Police seeking to boost arrest totals have targeted facilities that provide these services to find, harass, and detain large numbers of people who use drugs. Drug paraphernalia laws, which prohibit possession of injecting equipment, lead people who inject drugs to fear carrying syringes and force them to share equipment or dispose of it unsafely. Policing practices undertaken in the name of the public good have demonstrably worsened public health outcomes.”

Opportunities to improve screening & intervention

- Expand the reach of comprehensive SSPs
- Improve access and linkage to medication-assisted treatment (MAT)
- Increase infectious disease screening in healthcare settings and correctional facilities
- Implement infectious disease screening in substance abuse facilities
- Invest in community-wide dialogue about stigma
Screening & intervention: putting it all together

- Requires community-wide commitment

- Law Enforcement
- Health Departments
- Faith-based Organizations
- Healthcare organizations
- Non-profit Organizations
- Federal Partners
- People who inject drugs
- Community Based Organizations
- Academic Institutions
- Private Sector

Your Name Here
Screening & intervention: putting it all together

- Requires community-wide commitment
- SSPs are designed to be hubs for comprehensive care

- Sterile syringes & equipment
- Infectious disease testing & vaccination
- Counseling & education
- Treatment for substance use disorder
- Sexual risk reduction & PrEP
- Build strong relationships
Together we can stop infectious disease transmission

- The progression of these epidemics is not inevitable
- We have powerful tools to reach people with effective interventions
- Comprehensive programs can prevent infections, save lives, and save money
- Society, public health, healthcare systems, and individuals must work together
Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)

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GROUP DISCUSSION!

- What efforts in your states to screen PWID have been successful?
- What challenges or gaps remain?
LUNCH AND BREAK
Linking people who inject drugs to care and treatment for infectious disease and medication-assisted treatment

National Conference of State Legislatures
Legislative Summit Pre-conference
Sunday August 4, 2019

Alice K. Asher, RN, PhD
Office of Policy, Planning and Partnerships
Centers for Disease Control and Prevention
Roadmap for today’s discussion

1. People who inject drugs and healthcare utilization
2. Why linkage to care?
3. Addressing barriers to linkage to care
4. Creating opportunities to link to care in your community
5. Building local infrastructure to improve linkage to care
People who inject drugs under-utilize the healthcare system

- People who inject drugs (PWID) have important health needs and benefit from regular healthcare access
- PWID have limited healthcare utilization outside of emergency services
- Stigma plays a major role in limiting healthcare access for PWID

Artenie, et al, JVH, 2015; Vivolo-Kantor, et al, MMWR, 2018
Stigma prevents access to healthcare

- Healthcare providers and staff may view PWID negatively, mistrusting their motives, and fearing deception
  - Medical staff may view PWID as ‘reckless’ and uncaring about their health, even when PWID present seeking help and care
- Experiences with stigma can lead PWID to delay or avoid seeking healthcare

When stigma prevents access to healthcare

Of 3,795 PWID studied in 10 urban cities in the United States in 2018:

- 44% reported visiting any kind of healthcare provider in the past year
- 46% report ever getting testing for hepatitis C
- 45% report testing for HIV in the past year
- 54% report an overdose in the past year
- 64% tested positive for hepatitis C infection

Data from 2018 National HIV Behavioral Survey
Barriers to care exist at the system, provider and patient level.
Other barriers to linkage to care

- Waiting lists
- Lack of evidence-based programs
- Lack of providers/inadequate workforce
- Geographic distance
- Cost
- Fear of child protective services involvement
- Childcare needs
- Pregnancy – lack of specific programs/programs that will take pregnant women
- Lack of provider trainings and lack of tools to deal with intervention outcomes
- Lack of reimbursement for providers
- Lack of adolescent-focused treatment
Offering the minimal standard of care limits access

Of 597 PWID who tested positive for HCV, less than one percent were cured of their HCV infection

Patient navigation services improve outcomes for PWID

Coyle, et al, MMWR, 2015
A cycle of prevention, intervention and care for PWID

- Education
- Access harm reduction services
- Prevention of IDU (injection drug use)
- Drug treatment
- Screening
- Vaccination
- Engage drug-using networks

- Primary care
- HCV (Hep C) treatment
- Drug treatment
- HBV (Hep B) treatment
- Education
- Access harm reduction services

- Reinfection prevention
- Case management
- Harm reduction services
- Supportive housing
- Relapse prevention
- Screening
- Referral of injection partners

- Infectious disease
- Co-infection
- Co-morbidities
- Mental health
- Housing/social support
- Case management

- Continued Engagement
- Primary Prevention
- Specialty Intervention
- Secondary Prevention
What do Comprehensive SSPs Provide?

- Access to sterile needles and syringes
- Safe disposal of used injection equipment
- Services – or referrals to services – including
  - Substance use disorder treatment
  - Screening and treatment for infectious diseases
  - Education
  - Vaccinations
  - Social, mental health, and other medical services
  - Case management
  - Patient navigation
SSPs Prevent Transmission of Blood-Borne Infections

- Nonsterile injections can lead to serious health consequences
- Access to sterile injection equipment can help prevent blood-borne infections (e.g., hepatitis B, hepatitis C, HIV) as well as skin infections and endocarditis
- Health care provided at SSPs can catch problems early and provide easy-to-access treatment
SSPs support people living with infectious disease

- Patient navigation services
- Medication lockers
- Onsite treatment
  - HIV treatment
  - HCV treatment
  - Skin infections
- Referrals to treatment and care
New users of SSPs are 5x more likely to enter treatment for substance use disorder

In a study of 2,879 PWID:

- One-quarter of new SSP users reported entering treatment for their substance use disorder
  - 9% of PWID who have never used an SSP reported entering treatment
- Compared with PWID who had never used an SSP, those who had used one were 60% more likely to remain in treatment for 12 months

Harm reduction services are disease prevention services

Source: New York State Department of Health
The role of medication-assisted treatment (MAT)

- Compared to other forms of treatment based solely on counseling, psychotherapy, social support, or behavioral therapy, MAT stands out as the only form of treatment that has displayed consistent and remarkable effectiveness:
  - Reductions in opioid use
  - Reductions in overdose
  - Reductions in infectious disease transmission
  - Reduction in criminal activity
Medication-assisted treatment prevents infectious disease

- MAT decreases HCV and HIV transmission by more than 50%
- When MAT is combined with harm reduction services, infectious disease transmission is decreased by 74%
When does linkage to care work best?

- Entry into treatment is voluntary
- Peer-recovery models are used to both facilitate entry to care and to provide ongoing social support
- Patients have access to a variety of medication options
- Delays in the initiation of treatment are avoided or removed
- Medication for treatment initiation is provided immediately on site

When does linkage to care work best?

- Referring organizations have formal arrangements in place
- Services are non-judgmental to PWID
- Care is coordinated
- Co-location is ideal
Improving access to necessary services can reduce infectious disease transmission

- Nearly 30% of Americans live more than 10 miles from the nearest MAT provider
- Nearly 80% of Americans live more than 10 miles from the nearest SSP

Integrated care minimizes barriers and improves linkage to care

- Integrated, or co-located care, describes a system where multiple services are provided within a single setting.
- A team of clinicians can coordinate care using a systematic and cost-effective approach to provide patient-centered care.
- Patients receiving care in integrated programs are:
  - More likely to attend appointments
  - More likely to adhere to medical regimens
  - Have reduced morbidity and mortality

Missed opportunities for linkage to care at substance use treatment facilities

Percent of substance use treatment facilities offering HIV testing, 2017

Percent of substance use treatment facilities offering hepatitis C (HCV) testing, 2017

amfAR, 2018
Missed opportunities for linkage to care at substance use treatment facilities

Currently only 28% of substance use treatment facilities offer screening for hepatitis C or HIV

Percent of substance use treatment facilities offering HIV testing, 2017

Percent of substance use treatment facilities offering hepatitis C (HCV) testing, 2017

amfAR, 2018
Building local infrastructure includes increasing the number of MAT providers

- Capacity for methadone treatment approximately 120/100,000 people
- Capacity for buprenorphine treatment approximately 420/100,000 people
- Rate of opioid abuse or dependence: 892/100,000 people.
- As of 2015, only 3000 practicing physicians in the U.S. held American Board of Addiction Medicine credentials
  - 16% of 52,000 active U.S. psychiatrists possess the necessary licensing and waivers to prescribe buprenorphine

SAMHSA, 2019; Jones, et al, AJPH, 2015
Every interaction is an opportunity to engage in care: Make every door an open door

- Syringe services programs
- Emergency departments
- Inpatient hospitalization
- Primary care
- Infectious disease
- Obstetrics/gynecology
- Family care
- Social services
- Substance use treatment programs

- Law enforcement
- Jails/prison/parole services
- Psychiatric services
Thank you!

Questions? AAsher@cdc.gov

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DISCUSSION: GIVE AND GET!
ENJOY A 15 MINUTE BREAK!

“How are you not seeing this? Of course doughnuts are a hole food!”
RESPONDING TO LOCAL OUTBREAKS
CONNECTING OPIOIDS AND INFECTIOUS DISEASES PRECONFERENCE
#NCSLSUMMIT
AGENDA

- Expert Speakers:
  - Neil Gupta, Chief, Epidemiology and Surveillance Branch & Hepatitis A Outbreak Incident Commander, Division of Viral Hepatitis, NCHHSTP, CDC
  - Tim Jones, MD, State Epidemiologist and Acting Chief Medical Officer, Communicable and Environmental Diseases and Emergency Preparedness, Tennessee Department of Health

- Q&A and Discussion
State Strategies: Responding to Local Outbreaks

National Conference of State Legislatures
2019 Legislative Summit Pre-Conference Workshop
August 4, 2019

Neil Gupta, MD, MPH
Chief, Epidemiology & Surveillance Branch
Division of Viral Hepatitis
Centers for Disease Control and Prevention
Objectives

- Provide an overview of investigations of public health outbreaks/ clusters
- Describe local investigations of outbreaks among people who use drugs
  - HIV outbreaks
  - Hepatitis A outbreaks
- Describe the value of risk communication in responding to outbreaks
Outbreaks in the Headlines

Scott County HIV outbreak: How did it happen and where does it stand?

Opioid epidemic causes surge in infective endocarditis

Hepatitis A is out of control in — here’s why the state isn’t telling you about every case

Hepatitis A infections soaring: CDC

Spike in Multnomah County HIV cases tied to drug use

At the intersection of hope and despair
Challenges in Responding to Outbreaks

- Urgency to find source and prevent cases
- Pressure for rapid conclusion
- Need for flexibility in adapting existing programs and resources
- Limited human or environmental samples for testing
- Pressures because of legal liability
- Media reports may or may not adequately characterize response efforts
- Competing public health priorities
Why Investigate Public Health Outbreaks?

- Investigating outbreaks not only allows us to identify the cause and control the outbreak, it also allows us to:
  - Address public concerns and minimize economic disruptions
  - Evaluate existing programs and prevention strategies
  - Prevent similar outbreaks in the future
  - Provide new research and insight

- The extent of the outbreak response often depends on various factors:
  - Severity of illness, potential for spread, availability of prevention measures, resource availability, public relations
The Opioid Crisis and Outbreaks: Indiana

- HIV Outbreak in Scott County, 2015
  - 235 people with HIV
  - ~90% had hepatitis C co-infection
  - 5% adults with HIV in town of Austin (population 3,143)
  - > $100 million lifetime medical costs

Scott County, Indiana: Lessons Learned

- The affected population demonstrated:
  - High levels of unemployment, poverty, IDU, and,
  - Low levels of education and medical insurance coverage

- The three approaches that turned around the HIV/HCV (Hepatitis C) epidemic in Scott County were increased access to:
  - HIV and HCV testing,
  - HIV and HCV treatment, and
  - Syringe service programs
The Opioid Crisis and Outbreaks: West Virginia

- **HIV Outbreak in Cabell County, 2019**
  - Historically ~ 8 HIV diagnoses annually, only a few typically among PWID
  - Between Jan 2018 – Jun 2019, 55 new diagnoses among PWID alone
  - 38 diagnoses occurred in 2019

- **WV Health Department implemented coordinated response. CDC assisting since April 2019**

http://www.WVNews.com July 3, 2019
### Investigate and Intervene Within the Network

- Identify network and understand facilitators and barriers
- Reach network with:
  - Syringe service programs
  - Partner services
  - Testing Strategies
    - Social Network Strategies
    - Rapid Field Testing
    - Screening in EDs and Jails
  - Pre-exposure prophylaxis (PrEP)
  - Linkage to HIV care

### Identify and Address Gaps in Programs & Services

- Syringe service programs
- Testing Care
- PrEP
- Partner services
- Communication

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**Critical goal:** expand access to clean syringes to eliminate syringe sharing
The United States is Currently Experiencing an Unprecedented Number of Hepatitis A Infections in the Post-Vaccine Era
Hepatitis A Virus Outbreaks Reported in 25 States During 2016–2019

- 25 states reporting outbreaks:
  - Total cases: **22,566**
  - Hospitalizations: **13,352 (59%)**
  - Deaths: **221**
- Risk factors: drug use, homelessness
- Hepatitis B, hepatitis C co-infection
- >$100 M estimated healthcare costs

Vaccination is the Cornerstone for Outbreak Response

- **Offer vaccination to the following groups to control an outbreak**
  - People who use drugs
  - People experiencing homelessness
  - Men who have sex with men
  - People who are, or were recently, incarcerated
  - People with chronic liver disease

- **Non-traditional approaches to bring vaccine to hard-to-reach populations**
  - Ability to mobilize resources quickly (outbreak/ emergency declarations)
  - Storage and handling of vaccines in non-traditional facilities
  - Contracts to hire vaccinators
  - Collaboration with corrections organizations and other partners
  - Long-term vaccination policies
Vaccination of Persons At-Risk

- **Syringe Service Programs, Homeless Shelters, Substance Abuse Centers**
  - Important for engaging individuals at-risk early
  - Vaccination on site increases initiation and completion

- **Jails**
  - Many report drug use
  - Can vaccinate a large number of individuals

- **Peer Mentors**
  - Helps overcome mistrust; usually recognized as leaders
  - Effective communicators/educators

PUBLIC HEALTH STRATEGY

- Vaccinate
- Sanitize/hygiene
- Educate
- Public Health Centers
- Medical facilities (Clinics, Urgent care, FQHCs)
- Mass vaccination events
- Emergency Departments (+ paramedics)
- Homeless service providers
- Jails during intake and expanded to all inmates
- Behavioral health & substance use disorder treatment programs
- Mobile van clinics and foot teams going to encampments, ravines, culverts, riverbeds, and other field areas with law enforcement and homeless outreach workers
- Single Room Occupancy (SRO) hotels

Slide courtesy of Dr. Eric McDonald (San Diego County)
Mobile Vaccination in Rosecrans Parking Lot (5/15/17) with outreach workers from Family Health Centers San Diego

“Foot team” in downtown San Diego (6/8/17) with volunteers from Friend to Friend, Episcopal Community Services

Slide courtesy of Dr. Eric McDonald (San Diego County)
<table>
<thead>
<tr>
<th>Vaccination Provider</th>
<th>Count*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-exposure prophylaxis</td>
<td>1,015</td>
<td>0.5%</td>
</tr>
<tr>
<td>Jails</td>
<td>9,768</td>
<td>4.9%</td>
</tr>
<tr>
<td>Psychiatric Hospital</td>
<td>467</td>
<td>0.2%</td>
</tr>
<tr>
<td>Public Health Centers (IZ)</td>
<td>12,119</td>
<td>6.1%</td>
</tr>
<tr>
<td>Public Health Clinics (TB,STD)</td>
<td>1,626</td>
<td>0.8%</td>
</tr>
<tr>
<td>Field Events – Mobile Van</td>
<td>848</td>
<td>0.4%</td>
</tr>
<tr>
<td>Field Events – Foot Teams</td>
<td>5,787</td>
<td>2.9%</td>
</tr>
<tr>
<td>Field Events – POD/mass vaccination</td>
<td>26,521</td>
<td>13.3%</td>
</tr>
<tr>
<td>Non-County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FQHC</td>
<td>28,843</td>
<td>14.5%</td>
</tr>
<tr>
<td>Healthcare systems (ED, hospitals, clinics)</td>
<td>94,025</td>
<td>47.2%</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>10,407</td>
<td>5.2%</td>
</tr>
<tr>
<td>Occupational health</td>
<td>7,800</td>
<td>3.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>199,226</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
CDC Hepatitis A Outbreak Response Objectives

- Maintain national situational awareness
- Establish guidance for state/local health departments to contain outbreaks
- Cultivate communication and coordination between partners
- Facilitate sharing of best practices among health departments
- Supplement state/local resources to maintain robust response activities
CDC’s Engagement with States

- Bi-weekly regional calls with impacted states
  - Review state-level data
  - Discuss best practices for vaccine outreach

- Provide technical support in vaccinating “hard-to-reach” populations:
  - Remote or on-site technical assistance
  - Technical assistance in vaccine procuring and administration

- Outreach to state health leaders, policy makers, national partners
Outbreak Communication and Education Materials

- Public and professional
  - Fact sheets
  - Posters, pocket cards
  - Website

- Tailored materials for
  - People who use drugs
  - People experiencing homelessness
  - Gay or bisexual men

www.cdc.gov/hepatitis/HepAOutbreak
Summary of Hepatitis A Outbreaks

- Recent community outbreaks of hepatitis A virus infection have been prolonged and challenging to control.

- Outbreaks are primarily affecting vulnerable populations; morbidity and mortality have been higher than previously described.

- Vaccination is the cornerstone for control of community outbreaks. Novel strategies are needed to deliver vaccine to hard-to-reach populations.

- Policy and system changes important to facilitate vaccinations to at-risk populations in non-traditional facilities to control the outbreak.
Risk Communication

- **Observations during outbreak responses**
  - Messages circulating in the media may not reflect the science and could potentially hinder the response
  - Proactive efforts can help frame the issue to garner support for response efforts

- **Goals of risk communication**
  - Tailor communication taking into account the *emotional response* to an event
  - Empower the public to make informed decisions
  - Prevent actions that negatively affect the response
Key Principles of Risk Communication

- Perception = Reality
  - That which is perceived as real IS real

- Hazard assessed by experts may not correlate with threat perceived by public

- Trust is critical

- Develop key messages
  - Concise, simple, repeat in same way
  - Messages often judged by speed, accuracy and credibility of messenger
Summary

- Outbreaks are not only a major detriment to public health, but can also have substantial financial and public relations impacts.
- Sentinel events that help us understand and address challenges with existing public health programs for people who use drugs.
- Imperative to launch early response efforts, be flexible and adaptable with existing resources, and utilize risk communication principles.
- Capitalize on information learned from the response to inform investments in infrastructure and services for people who use drugs.
Thank you & time for questions

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Opioid Abuse and Infection

Tim Jones, MD
State Epidemiologist and Acting CMO
Tennessee – Opioid Prescribing

U.S. State Prescribing Rates, 2017

[Map of U.S. states showing prescribing rates in different colors]
Opioid Prescription Rates by County
TN, 2007-2011

Data source: Tennessee Department of Health; Controlled Substance Monitoring Database.
Prescription Data

Rate of Opioid Prescriptions for Pain

2017

2018

Opioid Prescription Rate for Pain Per 1,000 Population by TN County of Residence*

*Includes Schedule II, III, & IV controlled substances
Number of Opioid and Benzodiazepine Prescriptions in TN, 2014-2018

*Analysis conducted by the Office of Informatics and Analytics, TDH (last updated January 15, 2019). Limited to TN residents. Data Source: Controlled Substance Monitoring Database.
Opioid-Related Drug Overdose Deaths

Age-Adjusted Rates for Opioid Overdose Deaths in TN by Year for 2013-2017

*Analysis conducted by the Office of Informatics and Analytics, TDH (last updated December 14, 2018). Limited to TN residents. Data Source: TN Death Statistical File
All Drug Overdose Deaths

Opioids, Benzodiazepines, and Stimulants Present in All Drug Overdoses in TN, 2013-2017*

**Major stimulants include cocaine and methamphetamines

*Analysis by the Office of Informatics and Analytics, TDH (last updated December 14, 2018). Limited to TN residents. Data Source: TN Death Statistical File. Categories in this graph are not mutually exclusive.
Tennessee’s Outbreak Overview

Hepatitis A in Tennessee

December 2017

Map current as of 7/25/2019
Tennessee’s Outbreak Overview

Illness Onset Epi Curve for Confirmed Cases by Grand Division
(N=2,108)

- EAST
- MIDDLE
- WEST
Public Health Outreach

• What types of outreach events do we do?
  – Jails
  – Feeding ministries/food banks
  – Homeless shelters/clinics
  – Mental Health service providers
  – Post-correctional services
  – Substance use services providers
  – Others, such as drug courts, day laborer services, extended stay hotel/motel, bar outreach, peer recovery groups, Pride, etc.
Public Health Outreach: Strike Teams

6 Teams
23 Staff
4 Funding Sources
Public Health Outreach: Strike Teams
Emergency Department Implementation

- Currently have agreements in place with 7 emergency departments in 5 counties
- However, vaccine is not being administered routinely
  - Thoughts on how to build into workflow?
- Open to all hospitals across the state
  - Must comply with Letter of Agreement to receive state funded vaccine

Kelly A. Jackson, MPH\(^1\); Michele K. Bohm, MPH\(^2\); John T. Brooks, MD\(^3\); Alice Asher, PhD\(^4\); Joelle Nadle, MPH\(^5\); Wendy M. Bamberg, MD\(^6\); Sue Perit, MPH\(^7\); Susan M. Ray, MD\(^8\); Lee H. Harrison, MD\(^9\); Ruth Lynfield, MD\(^10\); Ghinwa Dumyati, MD\(^11\); William Schaffner, MD\(^12\); John M. Townes, MD\(^13\); Isaac See, MD\(^1\)
Active surveillance in TN found increasing rates of candidemia cases associated with injection drug use.
Using the liberal estimate, the incidence of candidemia in PWID was 30 times higher than the general population in 2017.
The prevalence of viral hepatitis was higher among PWID.

- IDU:
  - Hepatitis B: 14
  - Hepatitis C: 76
- RXOPIOID:
  - Hepatitis B: 4
  - Hepatitis C: 27
- CONTROL:
  - Hepatitis B: 0
  - Hepatitis C: 7
Septic emboli occurred more commonly in PWID.
PWID more commonly had poly-microbial blood cultures.
Endocarditis occurred more commonly in PWID.
Injecting Drugs Can Ruin a Heart. How Many Second Chances Should a User Get?

A life-threatening heart infection afflicts a growing number of people who inject opioids or meth. Costly surgery can fix it, but the addiction often goes unaddressed.
State / Local Challenges

- Changing challenges
- Multifaceted
- “Surge capacity”
- Resources
- Long term problem
QUESTIONS & DISCUSSION
THINK, PAIR, SHARE

- Take a moment to think of questions and comments.
- Chat with your neighbor
- Share with larger group
THANK YOU!
THINK, PAIR, SHARE

- Reflect on what you learned today
- Pick one thing you want to do when you get home
- Pair up with someone at your table and share