HIV and Viral Hepatitis Co-Infection(s), Outbreak Vulnerability, and Data to Action Efforts in Tennessee

NASTAD TA Meeting, 2019

Lindsey Sizemore, Viral Hepatitis Program Director
Human Immunodeficiency Virus (HIV)

**Treatable** using antiretroviral therapy (ART), which reduces the amount of virus in blood/body fluids AND reduces the chance of transmitting virus to others if taken as prescribed.
Hepatitis B Virus (HBV) Infection

Vaccine preventable since 1981

Universally recommended childhood vaccination since 1991 and recommended for unvaccinated at-risk adults

http://www.immunize.org/laws/
Hepatitis C Virus (HCV) Infection

The most common bloodborne pathogen in the United States

Current therapies **cure** over 90% of persons with HCV regardless of genotype

https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm
Bloodborne Virus Co-Infection(s)

• Compared to HIV:
  – HBV is 50 to 100 times more infectious
  – HCV is 10 times more infectious
  – HBV and HCV last longer outside the body (at least 7 days and up to 6 weeks, respectively)

• All are spread through exposure to infected blood or sexual contact (less common for HCV)

• Due to these shared modes of transmission, persons living with HIV are disproportionately affected by HBV and HCV

• Viral Hepatitis (VH) in persons living with HIV may lead to their HBV and/or HCV infection advancing faster
  – Can complicate HIV treatment
Scott County, Indiana

- Due to the growing number of injection opioid use in non-urban areas
  - Persons who share needles, syringes, or other equipment used to prepare or inject drugs are at increased risk for bloodborne pathogens
- Of the 231 persons diagnosed with HIV, over 90% (215) were co-infected with HCV
- High rates of HCV can be indicative of drug use transmission networks, and often precedes HIV infection
HIV/VH Co-Infection by Geographic Region, 2015–2017
Ongoing TDH Mapping Efforts

- This surveillance strategy has allowed TDH to quantify HIV/VH co-infections retrospectively to determine highly vulnerable geographical regions.
- Currently, we compile a quarterly internal report that monitors HIV/VH co-infections to identify outbreak vulnerability in real-time, and determine sites for outbreak response planning activities.
Overlap of HIV, HBV, & HCV Co-Infection(s)

- **HIV**: 1,920
- **HBV**: 3,447
- **HCV**: 49,599

TDH NBS accessed 3/22/2019; TDH Enhanced HIV/AIDS Reporting System (eHARS) 2017 Frozen Dataset
HIV/HBV Co-Infection by Region*

*Regional information not depicted due to data suppression rules
TDH NBS accessed 3/22/2019;
TDH Enhanced HIV Reporting System (eHARS) 2017 Frozen Dataset
HIV/HCV Co-Infection by Region

HIV Mono-Infection

HIV Only Rate Statewide: 28.6
7.7 | 75.5

HCV Mono-Infection

HCV Only Rate Statewide: 738.5
398.3 | 1,332.4

HIV/HCV Co-Infection

HIV/HCV Rate Statewide: 8.4
3.0 | 17.4

TDH NBS accessed 3/22/2019;
TDH Enhanced HIV/AIDS Reporting System (eHARS) 2017 Frozen Dataset
TN HIV/HCV Outbreak Vulnerability*

CDC National Vulnerability Index: TN home to 41 of 220 high risk counties

*Based on 2012-2013 data
TN HIV/HCV Outbreak Vulnerability*

TN “In-State” Vulnerability Index*: 95 county rankings

*Based on 2012-2013 data
TN HIV/HCV Outbreak Vulnerability*

Overlapping CDC + TN “In-State” Vulnerability Index*: 24 counties

*Based on 2012-2013 data
TN HIV/HCV Outbreak Vulnerability

TN “In-State” Vulnerability Index*: 95 county rankings

*Based on 2016-2017 data
One Year CDC Opioid Overdose Crisis Funding
Navigation to Harm Reduction Services (11/1/18–11/30/19)

Substance Use Resource Navigators (SURNs) Pilot

- 6 nurses in LHDs
- 1 nursing manager located in Nashville (Central Office)
Navigation to Harm Reduction Services (11/1/18–11/30/19)

**Priority Population #1**
- Clients seeking any LHD service(s) and can benefit from harm reduction resources

**Priority Population #2**
- HD clients that are HCV Ab +/-RNA – or HCV Ab negative and PWUD

**Refer to harm reduction services**
- Substance use treatment
- Mental health services
- Syringe service programs
- Local HDs
- Overdose prevention (access to naloxone)

**Provide client with list of referrals based on client-centered goals and conduct 30-day follow-up**
Navigation to Harm Reduction Services
(11/1/18–11/30/19)

STAY TUNED!
Navigation to Harm Reduction Services (11/1/18–11/30/19)

- A large proportion of clients who spoke to a navigator received a referral to an appropriate service.

- Navigators can be critical components in assisting clients to access care.

- Intensive efforts to provide linkage to treatment and supportive services are needed to increase access and reduce risk of disease progression and transmission.
Thank you!

Questions?
Lindsey.Sizemore@tn.gov