



HIV, HCV & Harm Reduction in TN

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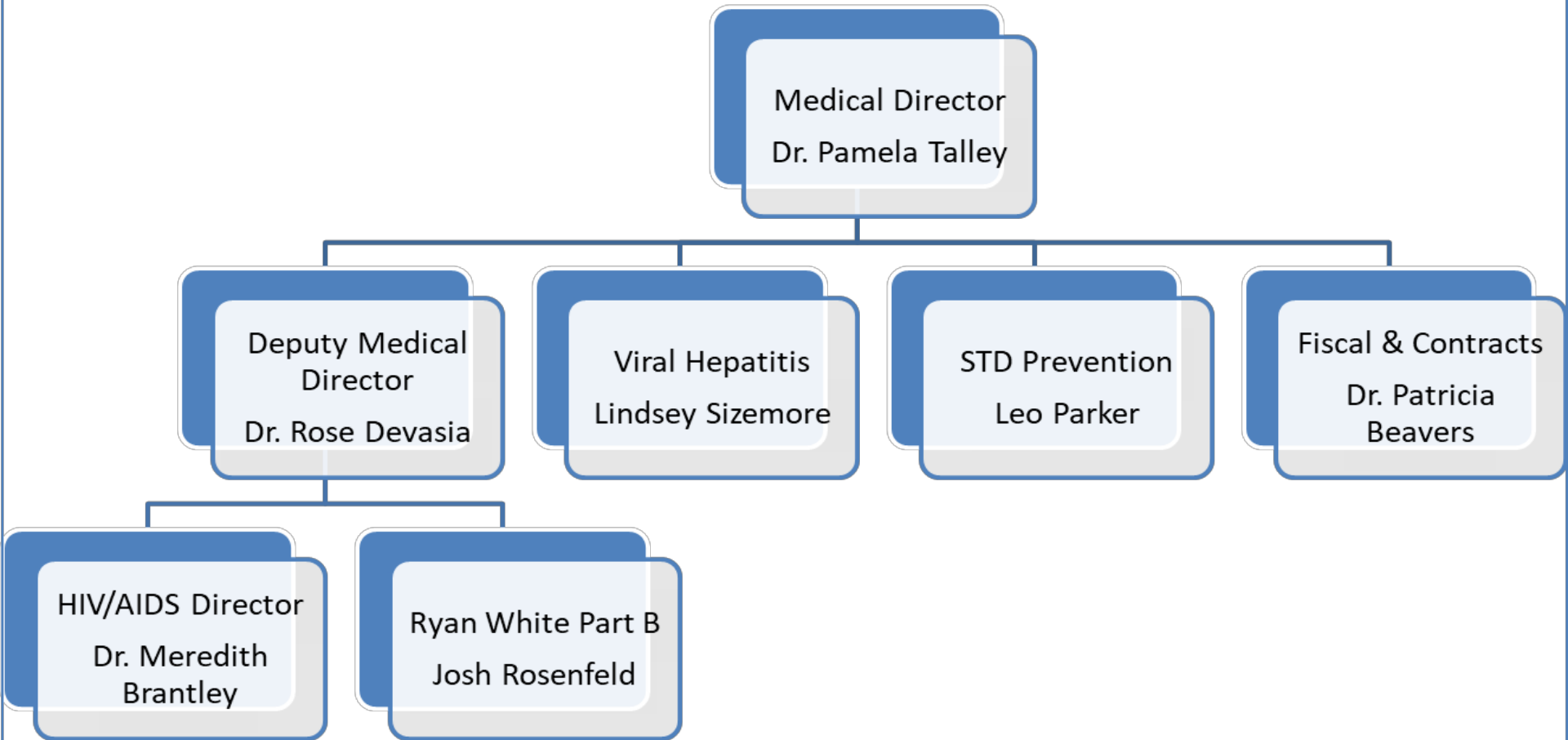
Deputy Medical Director

TDH HIV/STD/VH Program

Outline

- **Tennessee Vulnerability to Rapid HIV Dissemination**
- **HCV**
- **Harm Reduction Efforts**
- **HIV**

TDH HIV/STD/Viral Hepatitis Program





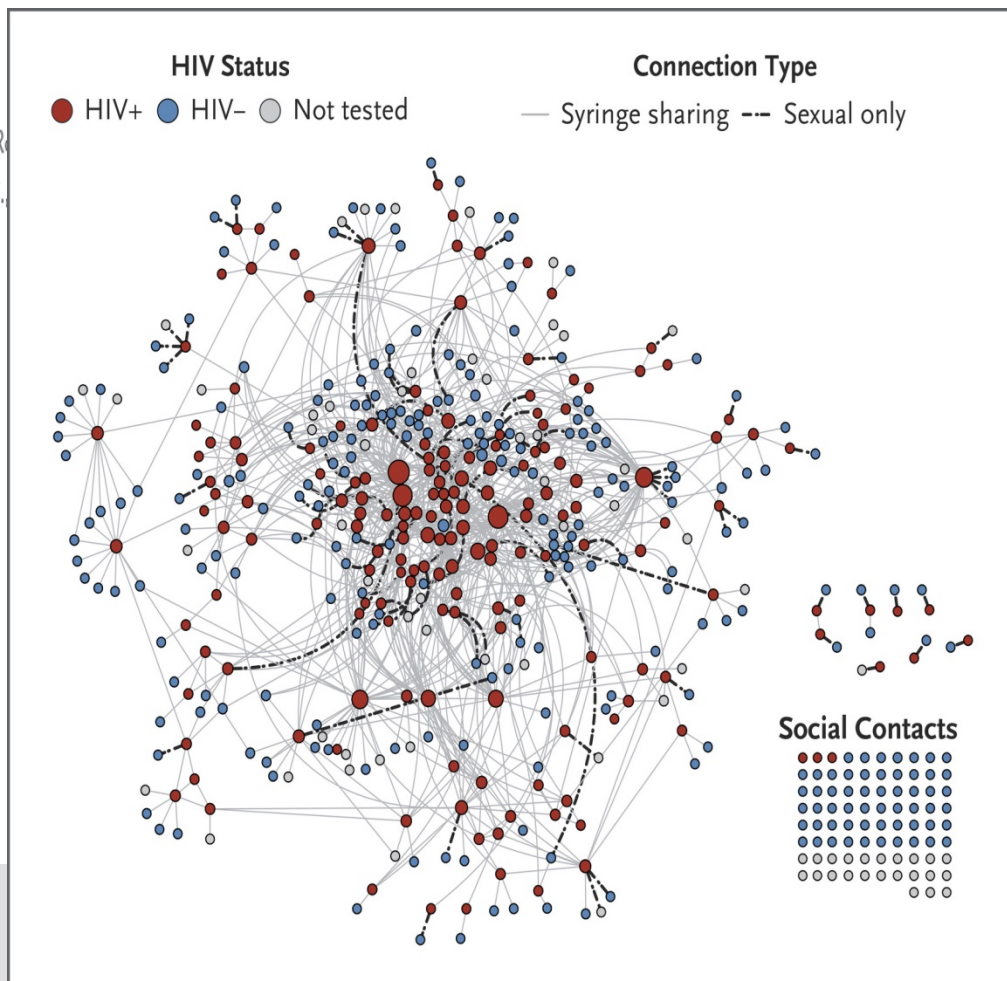
HIV Vulnerability— Tennessee

National Context: Scott County, Indiana 2014–2015

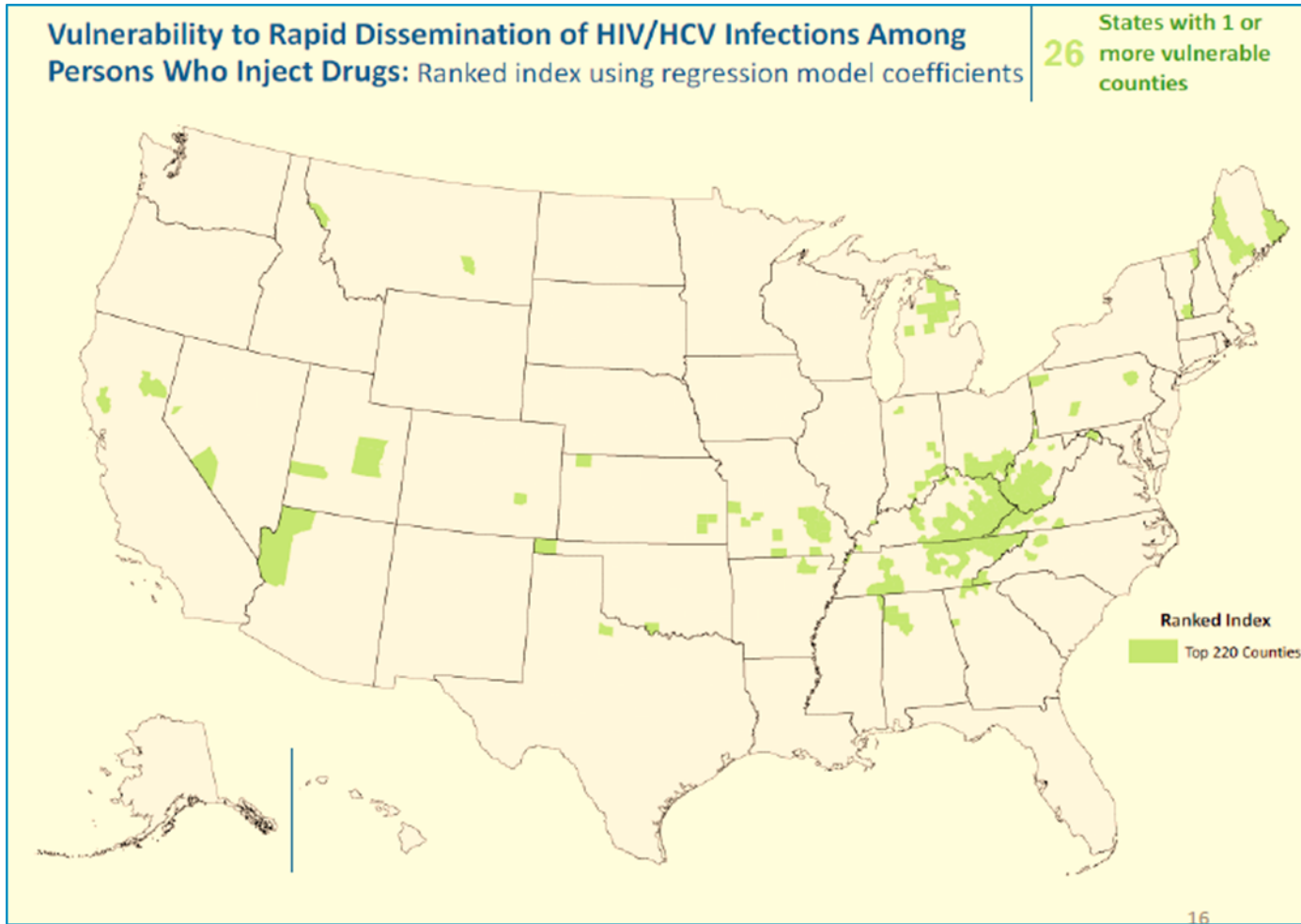
ORIGINAL ARTICLE

HIV Infection Linked to Injection Use of Oxymorphone in Indiana, 2014–2015

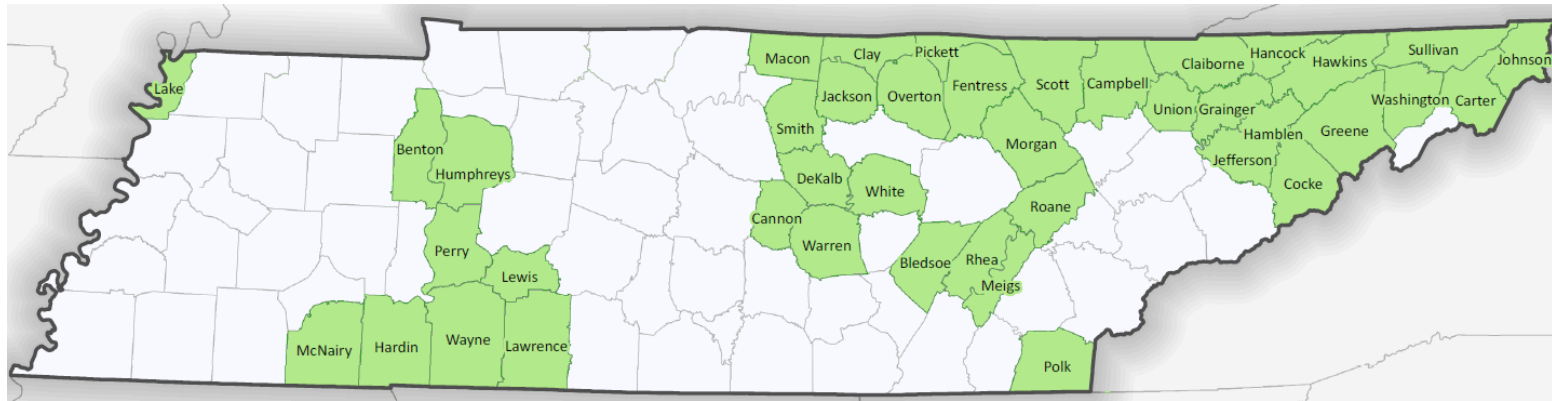
Philip J. Peters, M.D., Pamela Pontones, M.A., Karen W. Hoover, M.D., M.P.H., Monita R. Patel, Ph.D., M.P.H., R. Blosser, Ph.D., Michael W. Spiller, Ph.D., Brittany Combs, R.N., William M. Switzer, M.P.H., Caitlin Conrad, B.S.
Investigation Team*



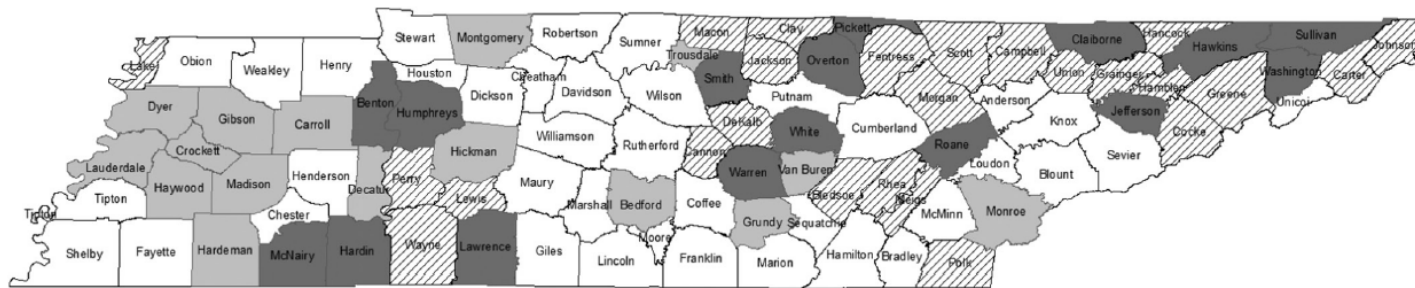
HIV/HCV Vulnerable Counties







HIV Risk Vulnerability Assessment, TN, County Level (CDC, TDH)



Van Handel et al, JAIDS 2016



41 Most Vulnerable Counties by Study

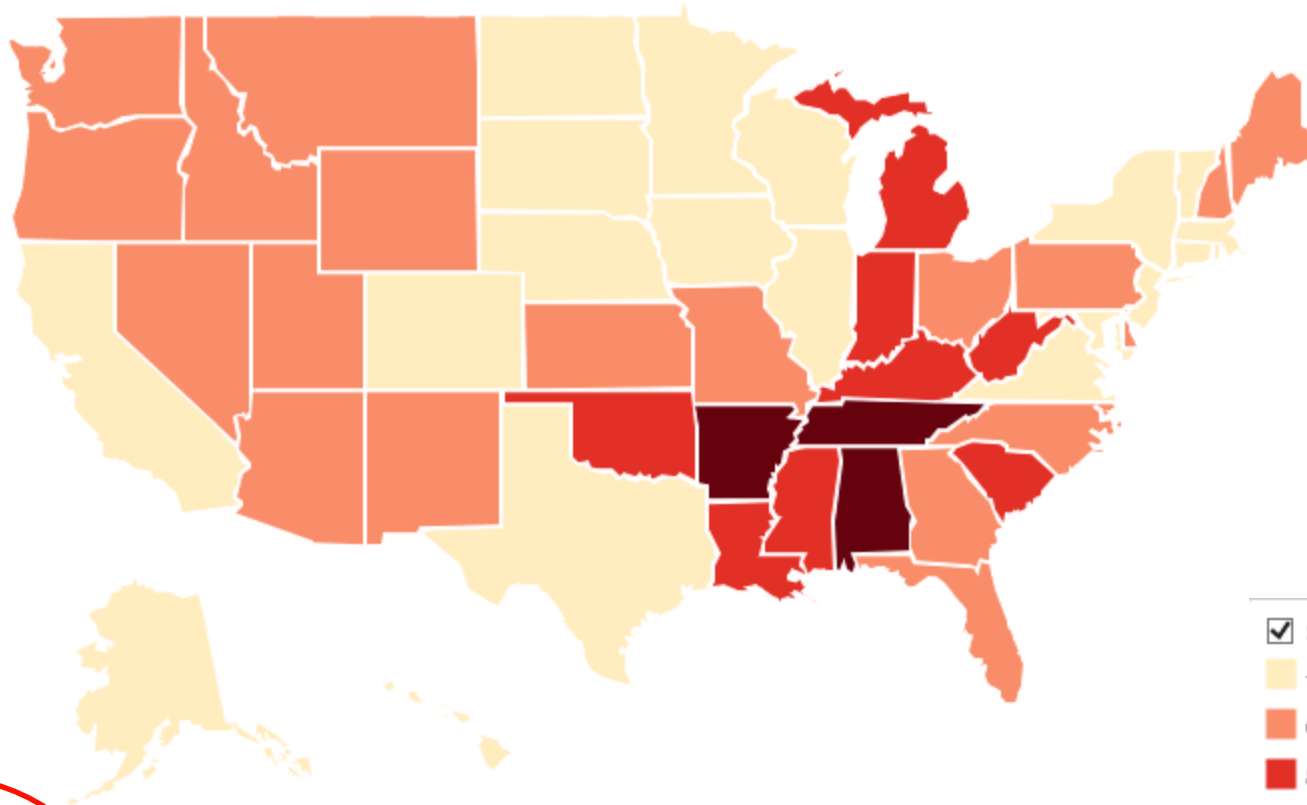
-  Vulnerable in Both Studies
-  Vulnerable in Tennessee Study Only
-  Vulnerable in CDC Study Only
-  Not in the Top 41 Counties of Either Study

Rickles et al, CID 2018



Opioid & HCV Syndemic

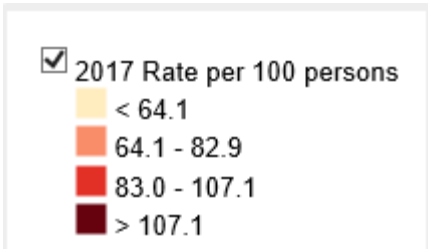
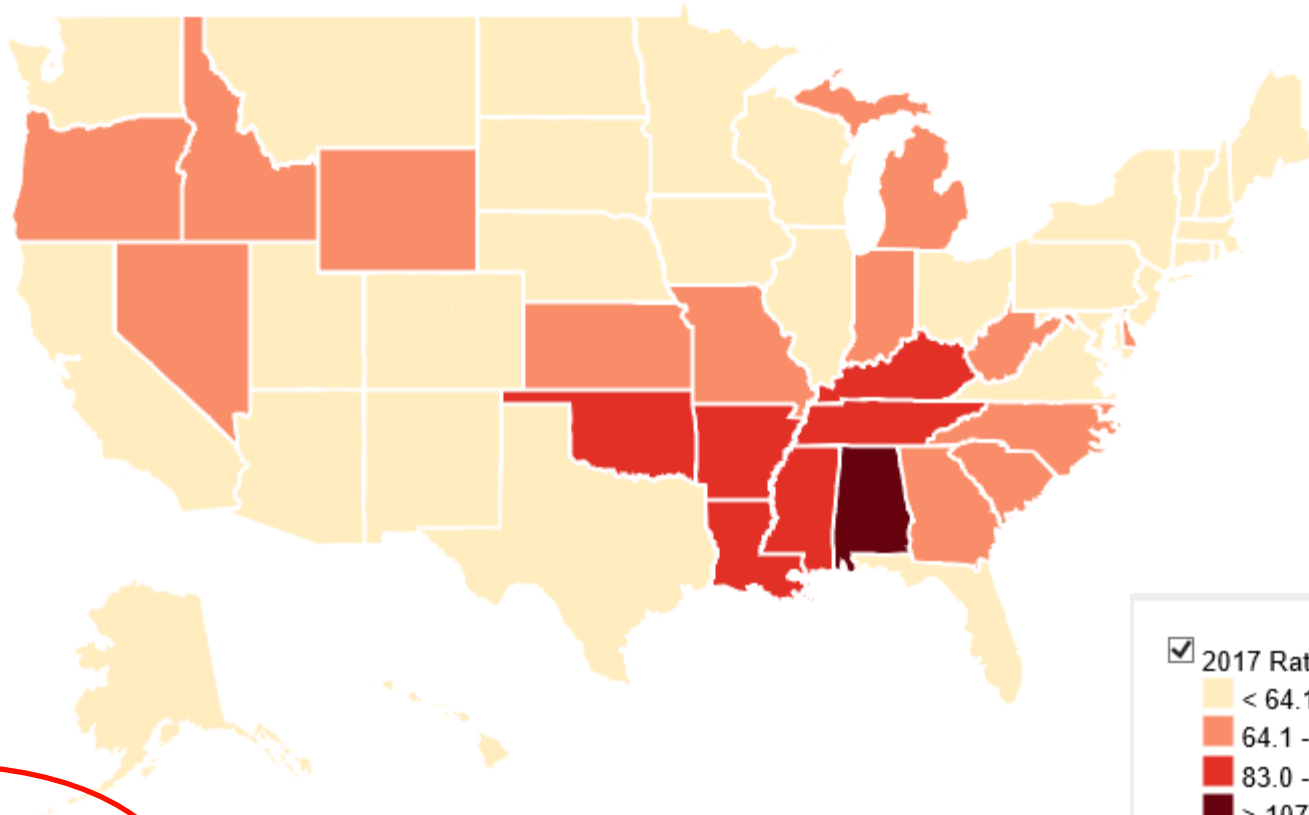
U.S. Opioid Prescribing Rates per 100 U.S. Residents by State (2016)



- States2016
- < 64.1
- 64.1 - 82.9
- 83.0 - 107.1
- > 107.1

Tennessee 2016
107.5 per 100

U.S. Opioid Prescribing Rates per 100 U.S. Residents by State (2017)

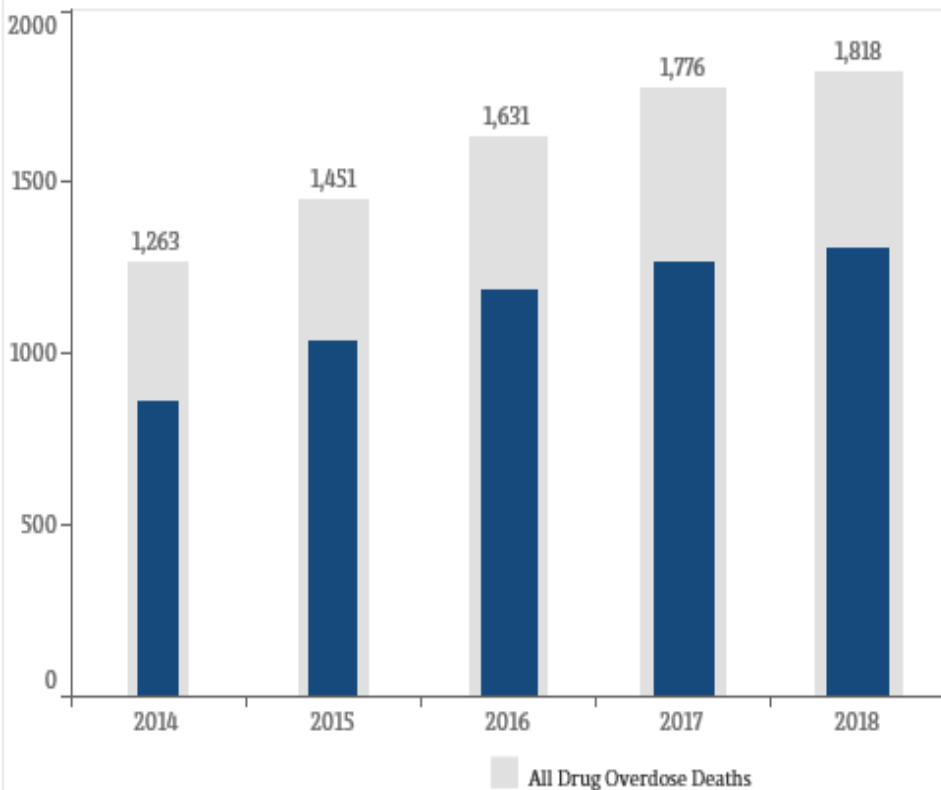


Tennessee
94.4 per 100 persons

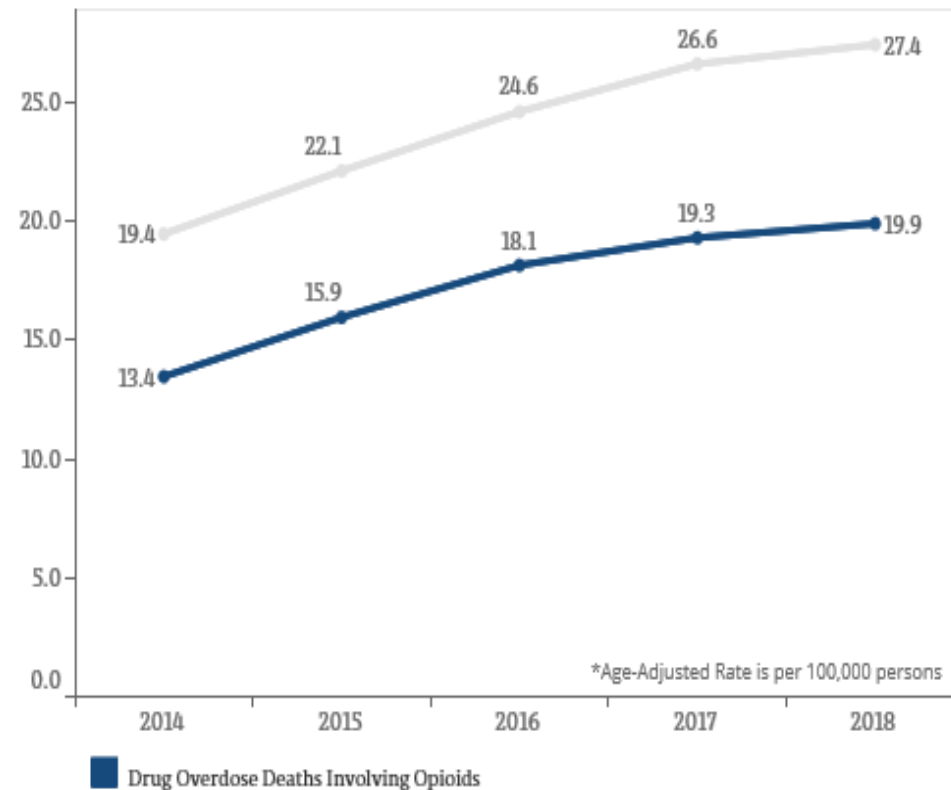
Drug Overdose Deaths & Death Rates

(TN, 2014–2018)

Drug Overdose Deaths



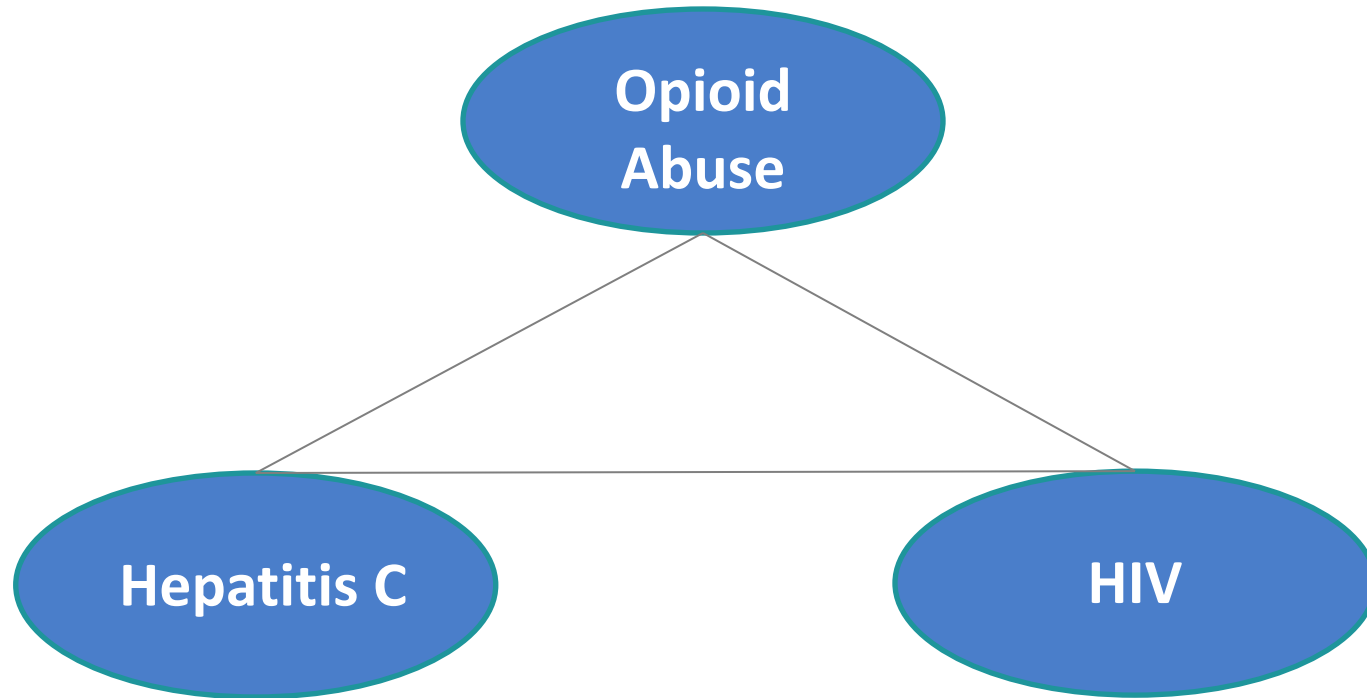
Drug Overdose Deaths Rate



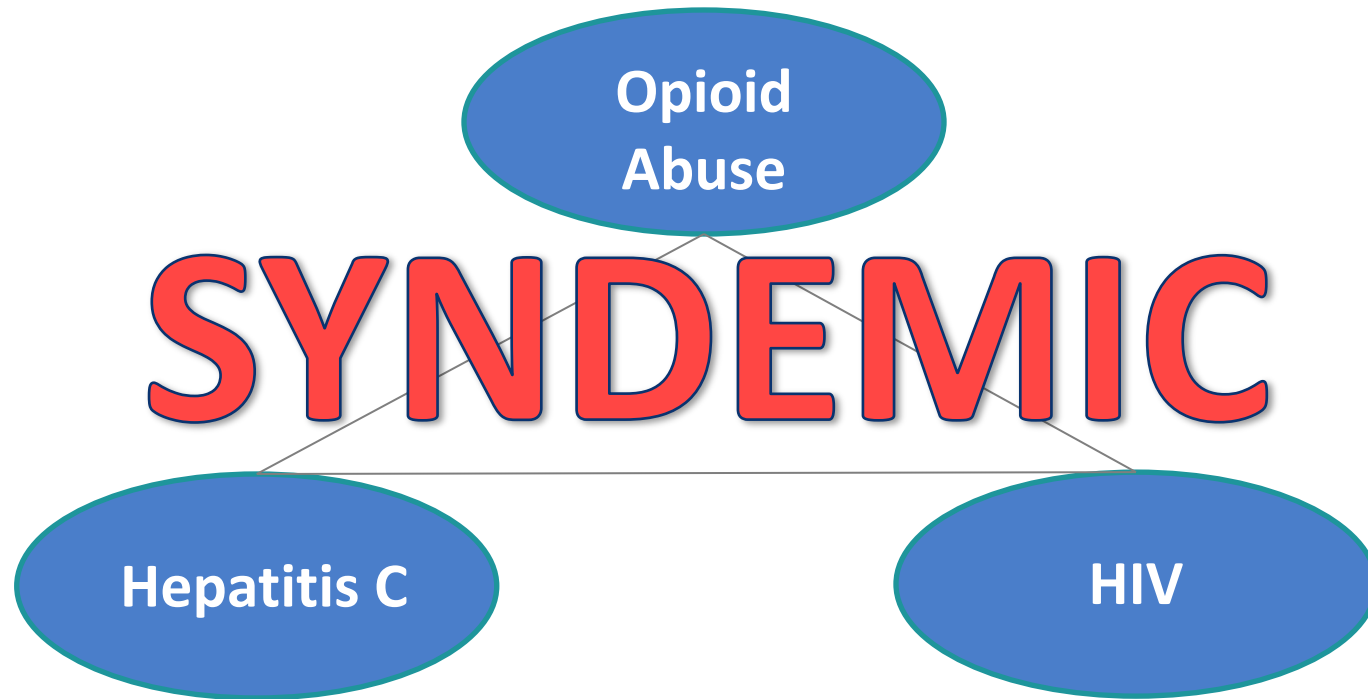
*Age-Adjusted Rate is per 100,000 persons

NOTES:
Tennessee Department of Health, Office of Informatics & Analytics

Intersection of Epidemics



Intersection of Epidemics

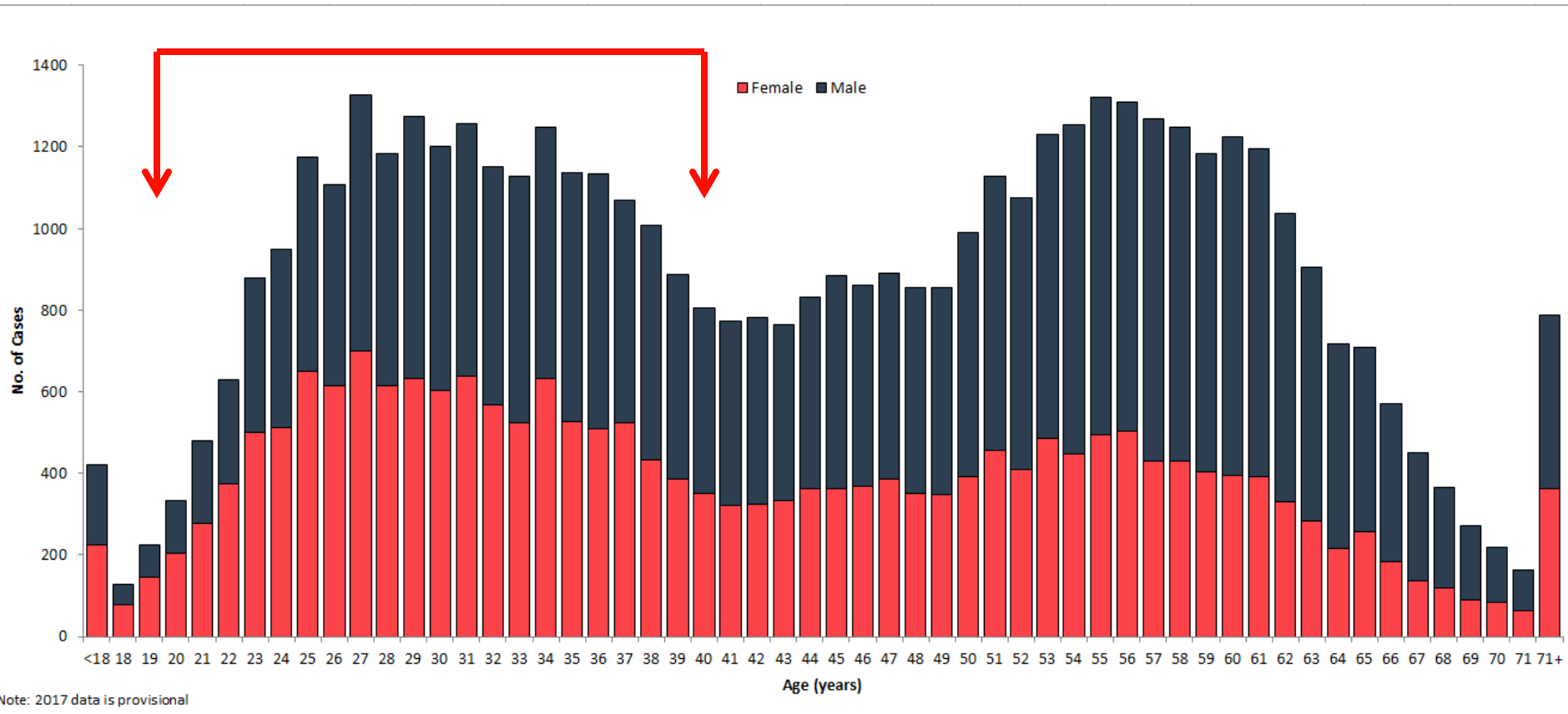




Hepatitis C Virus in Tennessee

Chronic HCV Infection

Newly Reported Confirmed & Probable Cases of Chronic HCV Infection in TN by Age (7/1/15–12/31/17, n = 48,773)



Note: 2017 data is provisional

Surveillance for Chronic HCV in Tennessee

Case Classification	2014	2015*	2016	2017	2018
Confirmed	3,987 (58%)	7,832 (64%)	11,481 (57%)	11,337 (54%)	10,019 (50%)
Probable	2,861	4,389	8,786	9,690	10,047
Total (C + P)	6,848	12,221	20,267	21,027	20,066

*TDH Central office chronic HCV surveillance efforts augmented beginning 7/1/15.

Increasing HCV

Surveillance, Testing and Navigation to Care

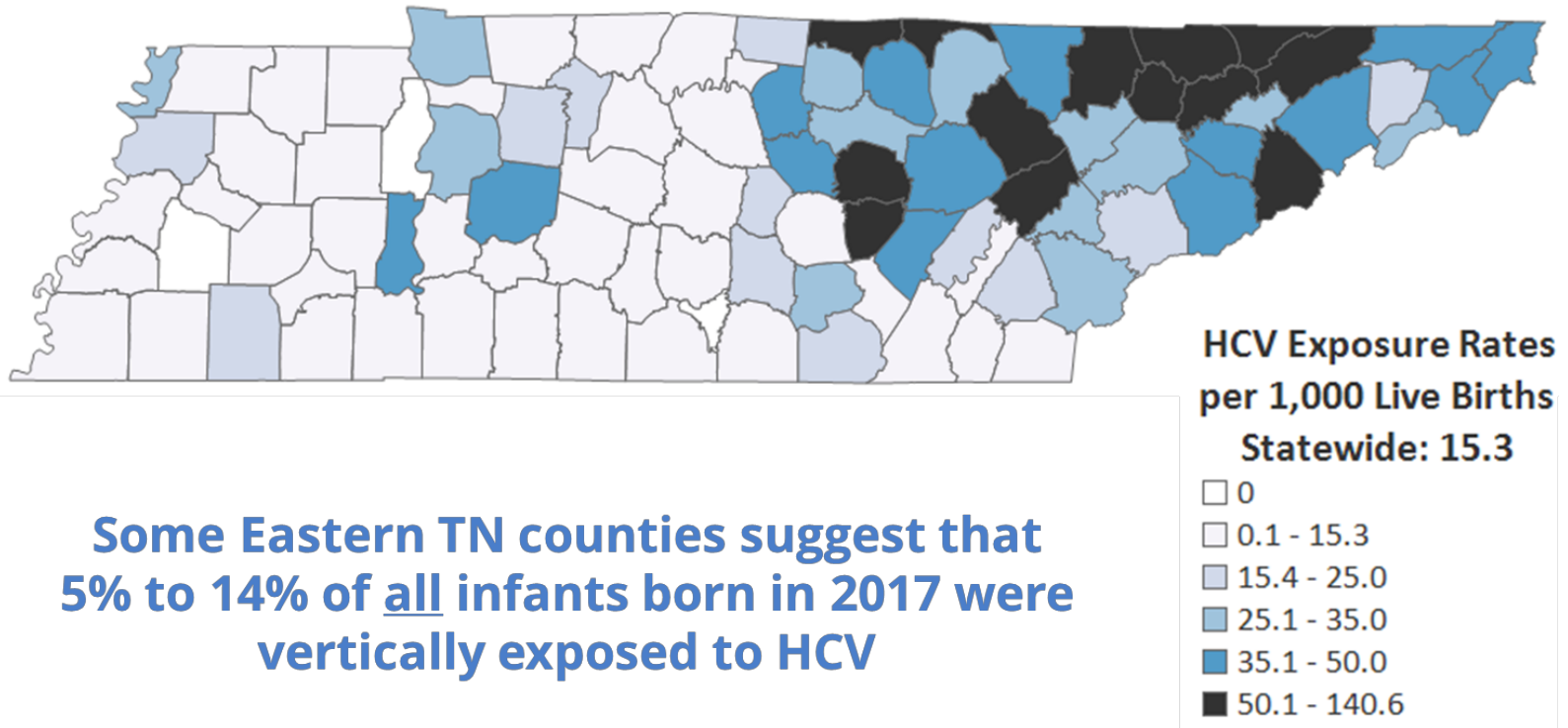
- **Surveillance**
 - Outbreak Planning, Detection and Response
 - Chronic HCV
 - Perinatal HCV
- **Testing**
 - Health Department STD Clinics
 - Intake testing of TDOC prisoners
 - Community Based Partners
- **Navigation to Care**
 - Treatment (MH, SUD, HCV, HIV)
 - Prevention (SSPs, Naloxone Distribution, Vaccinations, Family Planning)

Lab Indication of Perinatal HCV Exposure

Year	Live Births	NBS HCV Identified Moms	Moms in NBS with a Past or Present Infection			Total Exposed (Ab+ & RNA+)	HCV Exposed per 1,000 Births
			HCV Ab + only	HCV RNA +	HCV RNA -		
2013	79,954	669	304	327	38	631	7.9
2014	81,609	850	311	501	38	812	9.9
2015	81,374	1,068	350	631	87	981	12.1
2016	80,755	1,409	477	770	162	1,247	15.4
2017	81,002	1,429	430	808	191	1,238	15.3
Total	404,694	5,425	1,872	3,037	516	4,909	12.1

Source: TDH NEDSS Based System, TDH Birth Statistical File 2013-2017

Perinatal HCV Exposures, 2017



Some Eastern TN counties suggest that 5% to 14% of all infants born in 2017 were vertically exposed to HCV

HCV Testing in HD STD Clinics in TN

(4/1/17 – 3/31/18)

❖ 27,261 people tested

- 12.5% Ab (+)
 - 69.8% RNA (+)

Risk Factor	Total n (%) N = 27,261	HCV Ab (+) n (%) N = 3,407	HCV Ab (-) n (%) N = 23,854
Injection Drug Use	3,495 (12.8)	2,188 (62.6)	1,307 (37.4)
Intranasal Drug Use	6,032 (22.1)	2,123 (35.2)	3,909 (64.8)
Incarceration	7,781 (28.5)	2,206 (28.4)	5,575 (71.7)
Non-Professional Tattoo	6,804 (25.0)	1,542 (22.7)	5,262 (77.3)
Baby Boomers	2,949 (10.8)	768 (26.0)	2,181 (74.0)
No Risk Factors Reported	13,019 (47.7)	321 (2.5)	12,698 (97.5)

Note: Risk factors are not mutually exclusive; and total %'s are by column, whereas HCV Ab+ and Ab- %'s are by row.

(TDH PTBMIS, Knox County Electronic Health Records)

Screening Recommendations

- USPSTF 2013

Recommendation Summary

Summary of Recommendations

Population	Recommendation	Grade (What's This?)
Adults at High Risk	The USPSTF recommends screening for hepatitis C virus (HCV) infection in persons at high risk for infection. The USPSTF also recommends offering 1-time screening for HCV infection to adults born between 1945 and 1965.	B

- USPSTF Draft August 2019

Draft: Recommendation Summary

Population	Recommendation	Grade (What's This?)
Adults ages 18 to 79 years	The USPSTF recommends screening for hepatitis C virus (HCV) infection in adults ages 18 to 79 years.	B

TDH Navigation to Treatment

(7/3/17 – 3/31/18)

- VH Case Navigators (1 in each of 13 PHRs)
- **2,042 HCV RNA+ clients** ID'd through HDs for follow-up
 - 1,991 clients (98%) had reported RFs
 - 69% -- IDU
 - 66% -- INDU
 - 68% -- Incarceration
 - 1,134 (56%) clients were verbally contacted and referred
 - 80% -- HCV treatment (n=912),
 - 21% -- Substance use disorder treatment (n=241),
 - 5% -- Mental health services (n=60),
 - <1% -- HIV care (n=9)



Harm Reduction

National HIV & Hepatitis Overview

Injection Drug Use accounts for

- ~9% of new HIV cases ¹ and over 65% of HCV cases ²

Among people who inject drugs (PWID)

- ~7% are estimated to be living with HIV
- Only 57% report having been tested for HIV within the past 12 months
- Rates of linkage to care, retention in care, and viral load suppression are low
- 60%-90% have HCV after 5 years
- Median time to HCV transmission is ~3 years
- Each year ~ 20-30% of PWID acquire HCV ³

Comorbidity

- Among PWID living with HIV, 75% also have HCV
- Among PLWH w/o IDU, 25% have HCV ⁴

1. Centers for Disease Control and Prevention, 2017. HIV Surveillance Report, <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2017-vol-29.pdf>

2. Centers for Disease Control and Prevention, 2016. Surveillance for Viral Hepatitis – United States, 2016. <https://www.cdc.gov/hepatitis/statistics/2016surveillance/index.htm>

3. Grebely, J. et al. 2011. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3072734/>

4. Centers for Disease Control and Prevention, 2017. HIV and Viral Hepatitis. <https://www.cdc.gov/hiv/pdf/library/factsheets/hiv-viral-hepatitis.pdf>

Economic Costs of Syndemic

Life time cost
of each HIV
infection is
over
\$380,000 ⁵

Accumulated
costs of HCV
care over the
next 20 years
given current
treatment
trends is over
\$78 billion ⁶

Hospitalizations for Endocarditis and Associated Health Care Costs Among Persons with Diagnosed Drug Dependence — North Carolina, 2010–2015

Weekly / June 9, 2017 / 66(22);569–573

Aaron T. Fleischauer, PhD^{1,2}; Laura Ruhl, MD³; Sarah Rhea, DVM^{1,4}; Erin Barnes, MD⁵ ([View author affiliations](#))

5. Centers for Disease Control and Prevention, 2017. <https://www.cdc.gov/hiv/programresources/guidance/costeffectiveness/index.html>

6. National Academies of Sciences, Engineering, and Medicine, 2017. <https://www.nap.edu/read/24731/chapter/8>

7. Fleischauer AT et al. Hospitalizations for Endocarditis and Associated Health Care Costs Among Persons with Diagnosed Drug Dependence — North Carolina, 2010–2015. *MMWR Morb Mortal Wkly Rep* 2017;66:569–573.

Preventing Infectious Diseases

- **Syringe Services Programs (SSPs)**
 - Most effective way to prevent infectious disease transmission for PWIDs ¹
 - Do not increase drug use or crime ²
 - SSP participants are 5 times more likely than nonparticipants to enter treatment ³

1. Centers for Disease Control and Prevention, 2016. <https://www.cdc.gov/vitalsigns/hiv-drug-use/index.html>

2. European Monitoring Centre for Drugs and Drug Addiction, 2010. http://www.emcdda.europa.eu/publications/monographs/harm-reduction_en

3. Centers for Disease Control and Prevention, 2017. <https://www.cdc.gov/hiv/pdf/risk/cdchiv-fs-syringe-services.pdf>

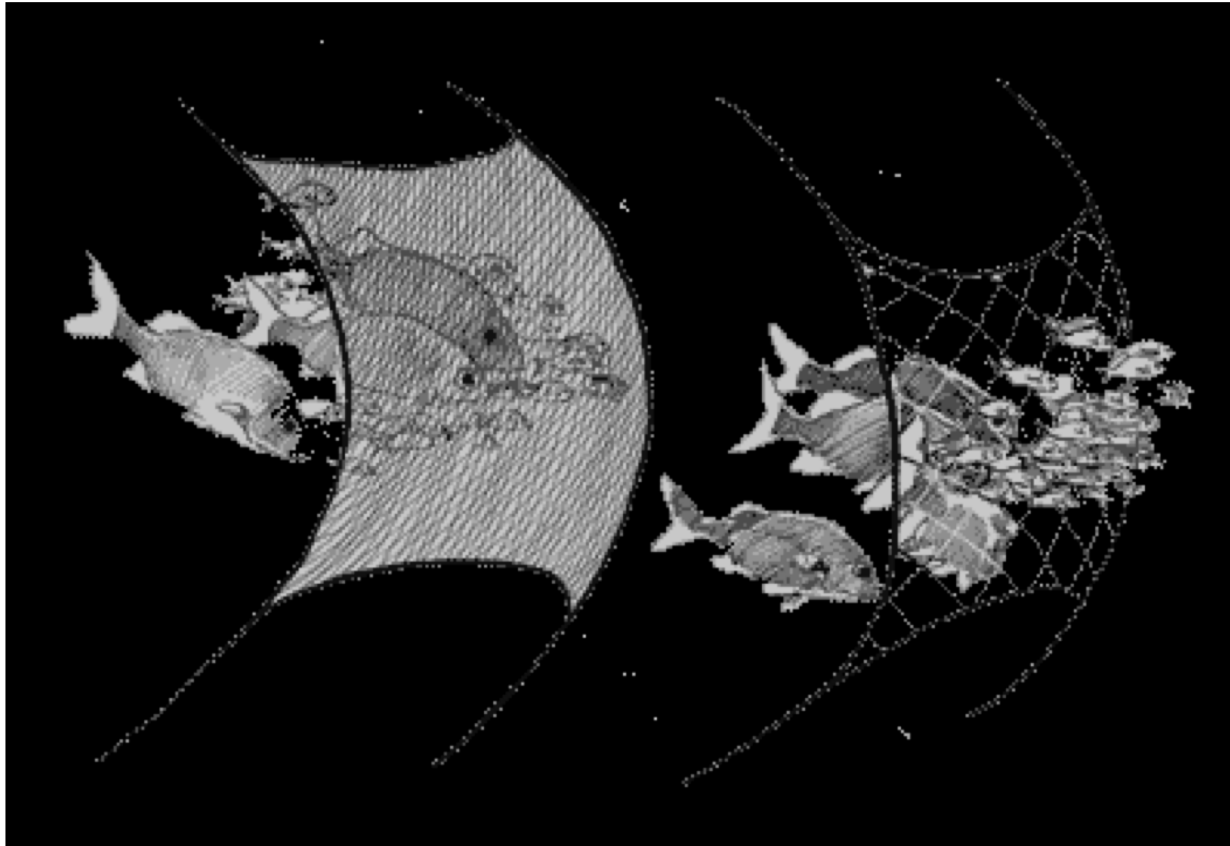
SSPs Improve Outcomes

- Come in many shapes and sizes



- Most effective when comprehensive services offered including:
 - 1) Medication-assisted treatment (MAT)
 - 2) HIV and HCV screening and treatment
 - 3) HIV pre-exposure prophylaxis (PrEP)
 - 4) Behavioral health services

Prevention and Treatment Binary



Prevention →

→ Harm Reduction →

→

Treatment

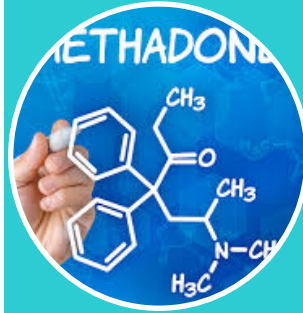
Comprehensive Approach



HCV/HIV Testing and Treatment



Mental Health Services



Medication Assisted Treatment



PrEP for People Who Use Drugs (PWUD)



Naloxone, SSPs, and Safer Injection Practices



SSPs in TN: Legislation

- May 18, 2017: Signed into law (Tenn. Code Ann. 68-1-136)
- Who
 - Non-governmental organizations
 - Approved by TDH (initial application, annual reporting)
- What
 - Provision of needles, hypodermic syringes, and other injection supplies at no cost
 - Disposal of used needles and hypodermic syringes
 - Educational materials
 - Access or referral to naloxone
 - Availability of on-site consultation for MH and substance use disorder treatment
 - (Provision of SSP participant cards)

SSPs in TN: Legislation

- **Restrictions**

- No public funds can be used to purchase needles, hypodermic syringes, or other injection supplies
- Written security plan (site, equipment, personnel) required to be shared with local law enforcement, updated annually
- No SSP operations within 2000 feet of schools or public parks

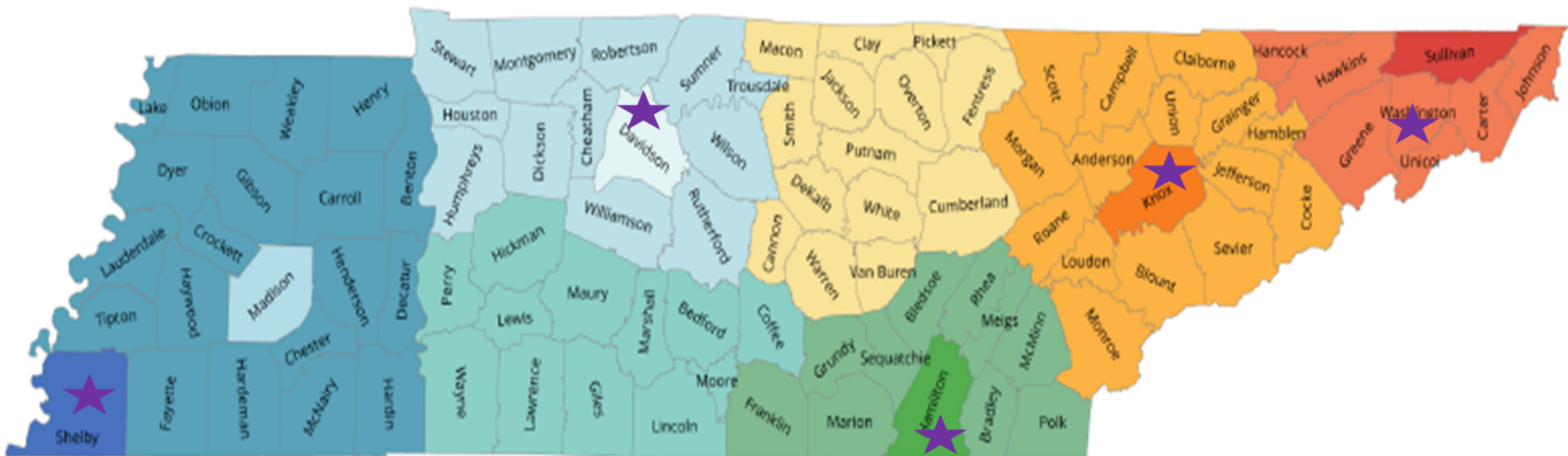
- **Protections / Exceptions (Tenn. Code Ann. 39-17-4)**

- No charges for possession of needles, hypodermic syringes, injection supplies or residual substance contained within these devices (as long as they were obtained from or being returned to an approved SSP)
- Exception only applies to possession for participants with written verification of participation in an approved SSP while either at the SSP or in transit to or from the SSP
- Equipment possession exception also applies to operators of verified SSPs

SSPs in TN

- **Amendments 2018**
 - 2000 ft restriction (schools & public parks) ↓ to 1000 ft in 4 metros
 - LHDs can establish & operate SSPs ... if... approved & funded by county Commission
- **Progress**
 - 6 agencies approved
 - Partner with MHSA Regional OD Prevention Specialists (ROPS)
 - Feb 2018 – June 2018
 - > 125,000 needles & syringes distributed
 - > 36,000 needles & syringes collected
 - > 1,600 referrals made for SUD and MH treatment
 - 672 naloxone kits supplied

Tennessee Counties with Syringe Services Programs October 2019



★ = county with ≥ 1 syringe services program

Memphis-Shelby: 2 agencies (2 mobile sites)

Nashville-Davidson: 1 agency (2 mobile sites, 1 fixed site)

Chattanooga-Hamilton: 1 agency (1 mobile site, 1 fixed site)

Knoxville-Knox: 1 agency (2 mobile sites)

Johnson City-Washington: 1 agency (1 fixed site)

SSPs in TN: Application & Annual Reporting

- **Application**
 - Organization name, areas and populations to be served, and methods for achieving program requirements
- **Annual Reporting (w/in 1 year of approval and annually thereafter)**
 - Number of individuals served, types of supplies dispensed and disposed, and naloxone kits distributed
 - Number and types of other services and referrals provided
 - Education, counseling, testing, treatment
- **How / Where**
 - Form
 - Direct online entry or traditional forms
 - <https://www.tn.gov/health/health-program-areas/std0/std/syringe-services-program.html>

Navigation Services

- TDH
 - HCV Navigators (x 13)
- TDMHSAS
 - Regional Overdose Prevention Specialists (x 17)
 - Narcan trainings & distribution
 - TN Recovery Navigators (x 11)
 - Meet with patients seen in EDs due to OD
 - Provide information & navigate clients to treatment (30 days)
 - Lifeline Peer Project (x 10)
 - Provide recovery trainings,
 - Refer people to SUD treatment
 - Establish recovery meetings

TDH: lindsey.sizemore@tn.gov

TDMHSAS: monty.burks@tn.gov

Recap: Opioid / HCV Syndemic & HIV Vulnerability

Progress

- Enhanced surveillance (HCV, opioid, ODs)
- Established HCV testing
- Variety of navigation services
- Augmented HCV treatment capacity
- Established SSPs in 5 counties
- Established molecular surveillance (HIV, HCV)

Challenges

- Extremely high rates of HCV
- Vulnerability for HIV among PWID
- Limited SSP access in rural counties
- Limited access to treatment for PWID (SUD, HCV)
- Determining best use of molecular surveillance
- Coordinating navigation services