

TRANSMISSION OF BLOOD-BORNE PATHOGENS

FACT SHEET - APRIL 2019

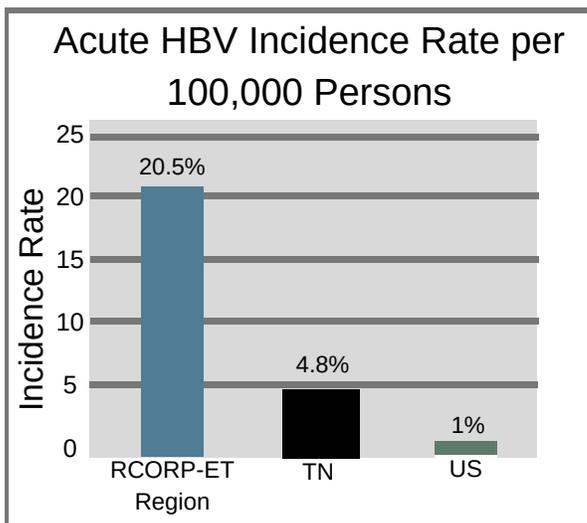


SEVERITY

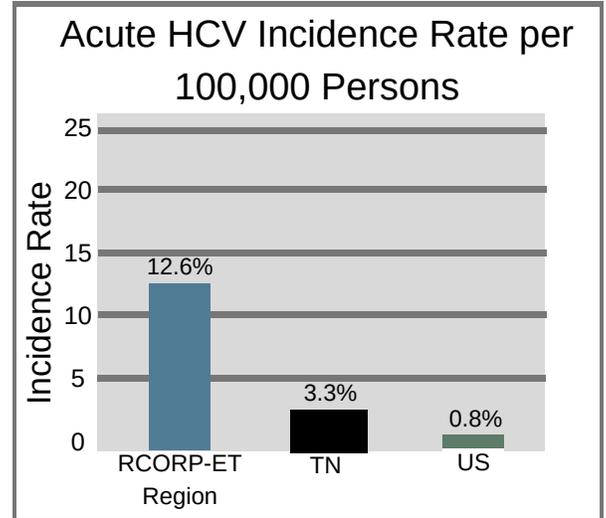
Size of the Problem

Over 360,000 people live in the RCORP-ETC region in East Tennessee.¹ The RCORP-ETC region is at a much greater risk of health challenges than Tennessee overall, including opioid use disorder (OUD) and related health outcomes including blood-borne pathogens: Hepatitis B and C viruses (HBV, HCV) and human immunodeficiency virus (HIV). Note, HIV and HBV have alternative routes of transmission beyond contact with infected blood.

Across the 10-county region, the median HIV prevalence rate per 100,000 persons 13 years or older in the RCORP-ET region (62.3) is lower than that of the state (297) and the U.S. (122). The lowest rate by county (22.0 per 100,000) is higher than that reported for the entire U.S. (10 per 100,000).²



Compared to the state and nation, the RCORP-ETC region has higher incidence rates per 100,000 persons for acute HBV (20.5) and acute HCV (12.6) than Tennessee and the U.S. overall.²



Seriousness

- 10–20% of people who misuse prescription opioids escalate to injection. Injection drug use increases the risk for HIV and HCV by sharing contaminated injection equipment (e.g., needles) and risky sexual behaviors.^{3, 4, 5}
- HCV is highly transmissible, and injection drug use (IDU) accounts for more than 40% of incident HCV cases each year.⁴
- A preventative vaccine is available for HBV, but no vaccine is available for HCV.⁶
- Individual-vulnerability risk factors for blood-borne pathogen transmission: less education, older age, unemployment and poverty, sexual contact with infected individuals, less access to drug treatment and harm reduction interventions, and various injection-related correlates (e.g., frequency, “backloading,” location and networks).⁴

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- Community-vulnerability risk factors for blood-borne pathogen transmission related to opioid use in rural areas: drug-overdose death and prescriptions opioid sales rates per 100,000 population, median per capita income, percentage of population of a white/non- Hispanic race/ethnicity, percentage of population 16 years of age or older who are unemployed, and buprenorphine prescribing potential by DATA 2000 waiver per 10,000 population (estimate of medically assisted treatment).⁵
- Challenges of blood-borne pathogen prevention for individuals with OUD in rural communities: lack of sufficient health insurance, limited access to medication-assisted treatment (MAT) and Syringe Service Programs (SSPs), fragmented care, psychiatric comorbidities, and the impact of overlapping epidemics on available resources in a geographic location lacking needed services (e.g., HIV, HBV,HCV).^{3, 4, 7}

RCORP-ETC region (median=2,430:1) compared to the state (median=1,380:1) and nation (median=2,040:1).¹

	RCORP-ET Region	TN
Health Professional Shortage Areas	52	351
Mental Health Providers	1-90 (12.5 average)	8,963
Buprenorphine Treatment Providers	0-7 (2.5 average)	657
Ryan White HIV/AIDS Providers	0	45

RIPPLE EFFECT

Reducing the transmission of blood-borne pathogens will likely reduce the occurrence or challenges of:

- Unemployment
- Mental illness
- Uninsured population
- Poor social support
- Limited treatment and recovery services
- OUD overdose.^{3, 4, 5}

FEASIBILITY

The lack of clinical services across the 10-county area increases the concerns associated with HBV, HCV, and HIV. Specifically, there are no Ryan White HIV/AIDS providers and a shortage of primary care physicians. This lack of care providers is reflected by the highest ratio of residents per single provider in the

Nonetheless, a number of strategies may successfully reduce the transmission of blood-borne pathogens.

- Prioritize and expand harm reduction strategies (e.g., addiction treatment and rehabilitation services, medication-assisted therapy (MAT), and Syringe Service Programs (SSPs). SSPs successfully reduced U.S. HIV incidence by approximately 80% between 1990-2006.⁸
- Increase confidential, accessible, and affordable blood-borne pathogen testing services.
- Use epidemiological methods to identify social networks of persons potentially at-risk of OUD.
- Educate – particularly rural youth, families, and high-risk individuals – about blood-borne pathogens, prevention, available services (e.g., free testing at local health departments), and the HBV vaccine.
- Enhance collaboration between service providers (e.g., co-localization of blood-borne pathogen prevention and treatment services, OUD intervention services, prescription drug control, and primary care services) to improve comprehensive access to services and care. Co-localization may be especially impactful given the lack of clinical services and health care providers in the RCORP-ETC region.

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RURAL COMMUNITIES
OPIOID RESPONSE
PROGRAM FOR
EAST TENNESSEE
CONSORTIUM



COMMUNITY VIEW

The RCORP-ETC community survey of 710 people associated with the region revealed community concerns about the prevalence of risk factors and indicators of blood-borne pathogen outbreaks in a rural opioid epidemic. When asked to select the top three OUD challenges related to community health, the following were selected:

- Not enough recovery services (34.8% of respondents)
- Unemployment (16.3% of respondents)
- 11.0% of respondents also identified location of treatment services as a challenge.

Selected strengths that support community health included:

- Support in seeking help (23.1%)
- Community services collaboration (16.5%)
- Access to routine healthcare (14.8%)

Together, these improve the feasibility of successfully implementing interventions aimed at reducing blood-borne pathogen transmission as related to OUD reduction in a rural context.

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