

SB 64: Needle Exchange Programs



Executive Summary

From 2001 to 2015, the number of opioid-related hospitalizations and emergency room visits in Missouri more than doubled, indicating that the use of injection drugs such as heroin and fentanyl has risen drastically.¹ This development has put individuals who use injection drugs at increased risk of contracting blood borne infections, such as HIV or hepatitis C, through the use of contaminated needles. Surveillance of injection drug-related infectious disease is difficult, but the Centers for Disease Control and Prevention has designated Missouri as a state with significant risk of outbreaks of hepatitis C or HIV due to injection drug use. As such, they have issued a determination of need for needle exchange programs in the state.² SB 64 would allow needle exchange programs to operate in Missouri. These programs must register with the Department of Health and Senior Services in order to avoid violating laws prohibiting the manufacture, distribution, delivery, or sale of drug paraphernalia. New exchanges would be prohibited from operating within 500 feet of a school building.³

Science Highlights

- Needle exchange programs **provide sterile syringes** to people who use injection drugs.
- These programs have been shown to **decrease the spread of blood borne infections, such as HIV and hepatitis C**, and reduce unsafe disposal of contaminated syringes.
- Because needle exchange programs may remove barriers to using injection drugs, the programs are **more effective at reducing morbidity and mortality when implemented in conjunction with other interventions**, such as providing counseling and redirection to treatment programs.

Limitations

- There are relatively few studies of NEPs in nonurban areas, so the impacts of these programs may vary by location.
- To date, studies on NEPs rely on relatively small sample populations, so more research is needed to understand their comprehensive effects.
- Many studies rely on self-report or tests of non-representative populations (for example, arrestees) to establish the effects of NEPs, so the results of implementing these programs are often difficult to determine.

Research Background

What is a needle exchange program?

Needle exchange programs (NEPs) are public health interventions designed to decrease transmission rates of blood borne infections between people who use injection drugs. Through

This science note was prepared by MOST Policy Initiative, Inc. a nonprofit organization aimed to improve the health, sustainability, and economic growth of Missouri communities by providing objective, non-partisan information to Missouri's decisionmakers. For more information, contact Dr. Joshua Mueller, Health & Mental Health Fellow – josh@mostpolicyinitiative.org. This was prepared on 12/10/20.

these programs, people who use injection drugs may legally exchange their used syringes for unused, sterile syringes. Since syringes are classified as drug paraphernalia in Missouri, they can be difficult to obtain, leading to re-use or sharing of contaminated needles (i.e. needles that have been used to inject drugs). As such, NEPs are intended to take contaminated needles out of circulation in order to decrease the spread of infectious diseases associated with their use.

Some NEPs may provide comprehensive services, such as counseling, infection testing, and referral to substance abuse programs or other health services. As of 2019, NEPs were permitted to operate in 38 states and Washington, D.C.⁴ Though program design varies between localities, NEPs have consistently been shown to decrease transmission of blood borne infections and reduce the incidence of other public health risks, such as improper disposal of used needles.

NEPs decrease transmission of blood borne infections and provide broad public health benefits

Approximately 13,000 Missourians are living with HIV, with about 500 new infections reported each year.⁵ About 80,000 Missourians are estimated to be living with chronic hepatitis C viral infection, which can cause liver damage and death.⁶ Due to the difficulty of infectious disease surveillance, these numbers may actually be underestimates. Each of these diseases disproportionately affect particular populations, pointing to wider health disparities in the state. Specifically, Black and Hispanic individuals are newly diagnosed with HIV at rates that are ~9x and ~3.5x the rate of White populations, respectively. Males are also diagnosed at a rate that is ~4x the rate for females. Geographically, new HIV diagnoses are concentrated disproportionately in St. Louis and Kansas City.⁵ Data regarding populations living with hepatitis are less complete, but the most recent estimate of infection rates indicates that Black Missourians are ~2x as likely to contract hepatitis than White individuals, with new cases concentrated among younger males.⁶

To mitigate further spread of these infections, state governments across the country have authorized NEPs to operate as legal suppliers of clean syringes. There is a wide scientific literature indicating that the creation of NEPs consistently results in decreased transmission of blood borne infectious diseases, with HIV transmission being reduced most significantly (national data suggest a decrease of 10-20% in new HIV diagnoses after NEP implementation).^{4,7} This research indicates that, when NEPs are present, injection drug users decrease needle-sharing behavior by 5-10% within the first six months of the program implementation and do not increase their drug injection frequency, leading to decreased infection transmission.⁸

Beyond reducing the spread of blood borne infections, NEPs have been associated with other community health benefits. In particular, there is evidence that NEPs lead to a decrease in improper needle disposal (i.e., leaving loose contaminated needles in public spaces rather than in a designated disposal receptacle) in urban areas.⁹ As a result, proponents argue that these programs reduce the likelihood of law enforcement needle-stick injuries from contaminated needles.

Considerations surrounding NEPs

Researchers studying opioid use patterns have found that since NEPs remove barriers to syringe acquisition for injection drug users, these programs may be associated with higher opioid mortality rates, particularly in rural and high poverty areas.⁴ However, these unintended effects are mitigated when NEPs are implemented as comprehensive programs that provide additional resources such as counseling and redirection to treatment programs. To date, nonurban NEPs are understudied, so there may be some variation in the effectiveness of NEPs depending on their geographic context.¹⁰

References

1. Missouri DHSS. Missouri Opioid Overdose and Bloodborne Infection Vulnerability Assessments 2020. <https://health.mo.gov/data/opioids/pdf/vulnerability-assessments-full-report-2020.pdf>.
2. Centers for Disease Control and Prevention. Determination of Need for Syringe Services Programs. <https://www.cdc.gov/ssp/determination-of-need-for-ssp.html>.
3. SB 64, Missouri 101st General Assembly (2021). https://www.senate.mo.gov/21info/BTS_Web/Bill.aspx?SessionType=R&BillID=54230488.
4. Packham, A. (2019) Are Syringe Exchange Programs Helpful or Harmful? New Evidence in the Wake of the Opioid Epidemic. NBER Working Paper Series, no. 26111.
5. Bureau of Reportable Disease Informatics, Division of Community and Public Health, MO Department of Health and Senior Services. Epidemiologic Profile of HIV, STD, and Hepatitis in Missouri – 2017. <https://health.mo.gov/data/hivstdaids/pdf/MOHIVSTD2017.pdf>.
6. Bureau of Reportable Disease Informatics, Division of Community and Public Health, MO Department of Health and Senior Services. Epidemiologic Profile of Viral Hepatitis in Missouri – 2015. <https://health.mo.gov/data/hivstdaids/pdf/2015-MO-Profile.pdf>.
7. Watters, J.K., Estilo, M.J., Clark, G.L. (1994) Syringe and Needle Exchange as HIV/AIDS Prevention for Injection Drug Users. *JAMA*, 271(2): 115-120.
8. DeSimone, J. (2005) Needle Exchange Programs and Drug Injection Behavior. *Journal of Policy Analysis and Management*, 24(3): 559-577.
9. Levine, H., Bartholomew, T.S., Rea-Wilson, V., Onugha, J., Arriola, D.J., Cardenas, G., Forrest, D.W., Kral, A.H., Metsch, L.R., Spencer, E., Tookes, H. (2019) Syringe Disposal Among People Who Inject Drugs Before and After the Implementation of a Syringe Services Program. *Drug Alcohol Depend.*, 202: 13-17.
10. Paquette, C.E., Pollini, R.A. (2018) Injection drug use, HIV/HCV, and related services in nonurban areas of the United States: a systematic review. *Drug Alcohol Depend.*, 188: 239-250.