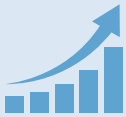
State Approaches to Addressing the Infectious Disease Consequences of the Opioid Epidemic

INSIGHTS FROM AN NGA LEARNING LAB

EXECUTIVE SUMMARY

Governors remain at the forefront of creative strategies to curb the opioid epidemic and related challenges, including increases in human immunodeficiency virus (HIV), hepatitis C virus (HCV) and other blood-borne infections related to injection drug use. Since 2010, HCV infections have been rising at an alarming rate, and the prevalence of HIV has increased among people who inject drugs.[1] Injection drug-related outbreaks of HIV and HCV in communities such as Scott County, Indiana, are vivid examples of how these deadly and expensive-to-treat infectious diseases can threaten areas hard hit by the opioid epidemic.



Injection drug use drove a **350% increase** in HCV infections between 2010 and 2016.[2]

To help governors address this public health challenge, the National Governors Association Center for Best Practices Health Division (NGA Health) launched a learning lab on addressing infectious diseases related to substance use. Through the learning lab, NGA worked with cross-disciplinary teams from seven states — **Alabama, Arkansas, Delaware, Michigan, Utah, Virginia** and **Washington** — to build on lessons learned from **Kentucky** in developing strategic plans to address the infectious disease consequences of the opioid crisis. States pursued a variety of strategies, such as using data to identify and target resources to high-risk communities, integrating HCV testing into opioid treatment settings and expanding access to comprehensive harm reduction.

This paper presents insights from these seven states that can inform other governors' efforts to prevent infectious disease outbreaks among people who inject opioids and other illicit drugs.

Considerations for Governors

- **State leadership and cross-sector collaboration are critical to identifying and effectively addressing community needs for harm reduction.**
- **Enhanced public health surveillance and comprehensive data sharing are needed to identify challenges and effectively target resources to areas of greatest need.**
- **Engaging a broad array of local stakeholders, including public health, law enforcement and business leaders, is critical to building and maintaining support for comprehensive harm reduction.**
- **Highlighting the role of syringe services programs in providing an array of health and social services can facilitate stakeholder buy-in and expand access to such programs.**
- **States are increasingly using federal resources, including opioid response funds, for public health surveillance and comprehensive harm reduction to address infectious diseases.**

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INTRODUCTION

Increasing Rates of Infectious Disease Resulting From Injection Drug Use

Opioid misuse continues to drive one of the worst public health crises in U.S. history, claiming the lives of approximately 130 individuals every day and devastating families and communities across the country.[3] Increasing rates of blood-borne disease among people who inject drugs are yet another consequence of the opioid epidemic. As injection drug use has become more widespread, so too has the risk of transmitting deadly infections such as HIV, viral hepatitis and endocarditis — a serious heart infection — through the sharing of needles and drug-preparation equipment.[4]

According to the Centers for Disease Control and Prevention (CDC), the number of reported cases of HCV increased 350% between 2010 and 2016, driven by injection drug use, with the most significant increases occurring among young people in nonurban areas.[5] The longstanding decline in HIV diagnoses among people who inject drugs has slowed, and one out of 10 new HIV infections is among people who inject drugs.[6,7]

In 2014, an outbreak of HIV in Scott County, Indiana, brought national attention to the infectious disease consequences of the opioid epidemic. Fewer than five annual cases of HIV had ever been reported in this rural community of 23,000 people, but by early 2015, 135 individuals were diagnosed with HIV infection linked to the injection of a prescription opioid.[8] Of the 225 people ultimately diagnosed with HIV, more than 90% were co-infected with HCV.[9] Faced with the outbreak, then-Gov. Mike Pence declared a public health emergency, allowing for syringe services programs in the county despite a statewide ban.

Following the outbreak in Scott County, CDC used nationally available data, including rates of death from drug overdose, prescription opioid sales, median per capita income and unemployment among people 16 years of age or older, to identify the top 220 counties across the country most vulnerable to the rapid spread of HIV and HCV infections associated with injection drug use (Figure 1). The counties were identified across 26 states, with 54 in Kentucky alone.[10]

Certain counties and jurisdictions are more vulnerable to infectious disease outbreaks, but increased rates of injection drug use across the country put nearly every state at risk. Between 2006 and 2012, at least 30 states saw increases in the incidence of HCV, with the most significant increases occurring in nonurban areas east of the Mississippi River and nearby Appalachia counties.[11] Tennessee, Virginia, West Virginia and Kentucky collectively saw a 364% increase in the number of acute hepatitis cases between 2006 and 2012 among white, nonurban people under 30 years of age. Similar rates were found in Massachusetts, Wisconsin and upstate New York.[12] In 2018, CDC identified 34 states and territories experiencing or at risk of significant increases in hepatitis infection or an HIV outbreak (Figure 1).[13]

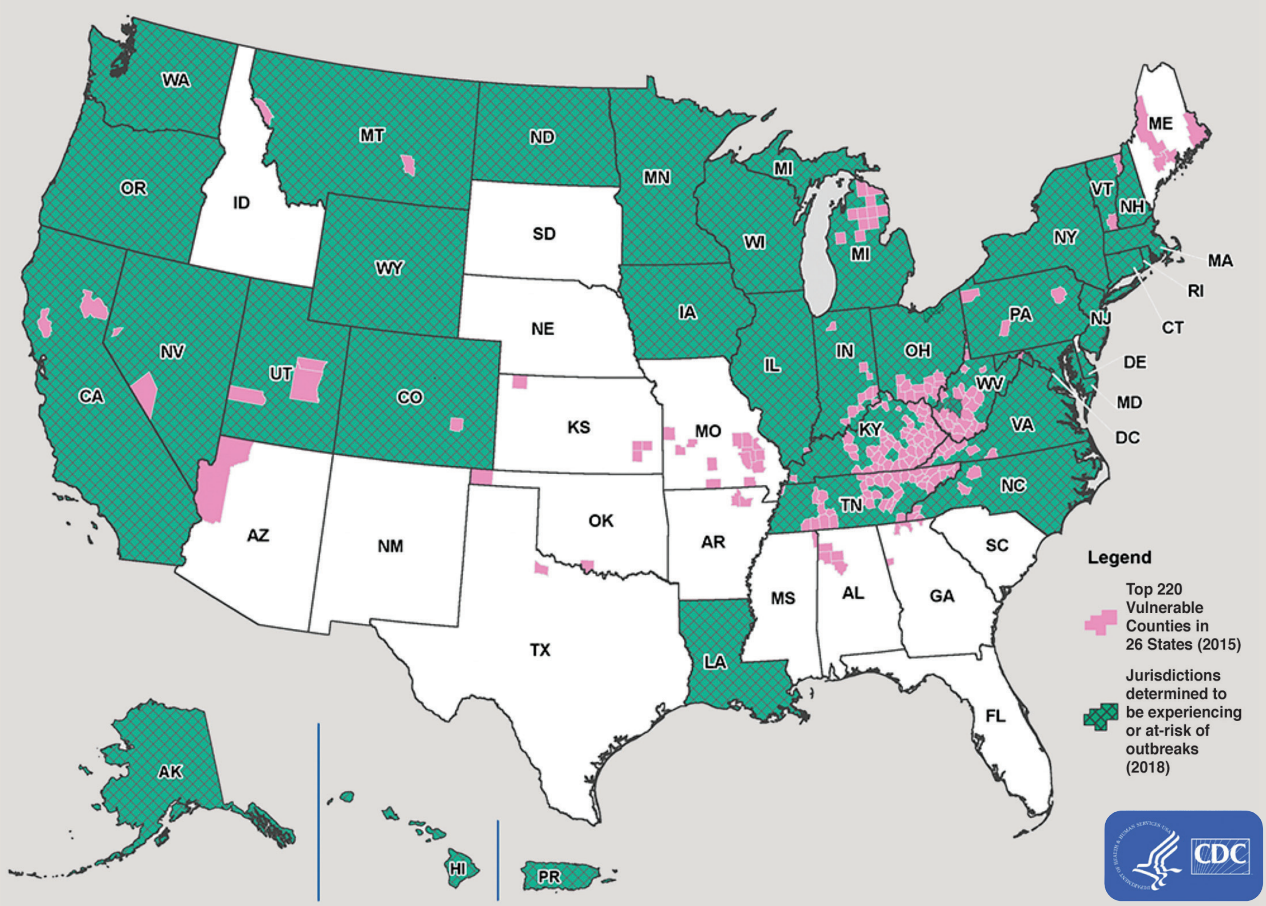
The Costs of Treating Injection Drug Use-Related Infections

In addition to the devastating personal and public health effects, infections associated with injection drug use exact a financial toll on states and communities. The opioid epidemic and injection drug use-related infectious diseases have led to an increase in health care costs. Public payers — primarily Medicaid — bear the brunt of the financial burden. Nearly four in 10 Americans with opioid use disorder are covered by Medicaid, as are more than 40% of people receiving care for HIV.[14,15] The discounted lifetime cost of HIV treatment is $379,668.[16] Treatment for HCV costs an average of $44,000 per patient.[17,18] Moreover, one in five individuals with opioid use disorder is uninsured, putting pressure on health care providers and state uncompensated care programs.[19] Hospitalizations for substance use-related infections cost more than $700 million annually.[20] In one year alone, unreimbursed emergency department treatment for drug dependence-associated endocarditis cost a hospital in North Carolina more than $5.2 million.[21]

Comprehensive Harm Reduction and Syringe Services Programs

Syringe services programs are an evidence-based, cost-effective approach to reducing the transmission of blood-borne infectious diseases among people who inject drugs. They can also provide a pathway to substance use disorder treatment and prevent

FIGURE 1: Vulnerable Counties and Jurisdictions Experiencing or At Risk of HIV or HCV Outbreaks



needle stick injuries among law enforcement and other emergency personnel. At a minimum, syringe services programs provide sterile needles, syringes, and other drug-preparation equipment and collect and dispose of used syringes. Increasingly, syringe services programs are providing comprehensive services such as testing for HIV and HCV; naloxone distribution; wound care; and links to other health and social services, including substance use disorder treatment.[22] In many jurisdictions, these programs are referred to as "comprehensive harm reduction programs" to convey their role in providing services beyond syringe exchange.

The number of states that permit syringe services programs has grown significantly in recent years in response to the opioid epidemic. Programs are currently authorized in 28 states and the District of Columbia.[23,24]

Research has shown that syringe services programs are effective in both improving health outcomes and reducing costs. Since implementing syringe services programs, New York City and Washington, D.C. have seen a 70% decrease in the number of newly diagnosed HIV cases related to injection drug use. Expanding syringe services programs nationally could lead to an estimated return of $7.58 for every $1 invested just by reducing HIV transmission rates and their associated treatment costs.[25] In addition, studies have found no evidence that such programs lead to higher drug use. In fact, people who use syringe services programs are 2.5 times more likely to stop injecting drugs.[26]

NGA Learning Lab on Addressing Infectious Diseases Related to Substance Use

In 2018, NGA Health launched a learning lab to help states address infectious diseases related

to substance use, including opioid use disorder. Through the learning lab, governor-appointed teams from seven states — **Alabama**, **Arkansas**, **Delaware**, **Michigan**, **Utah**, **Virginia** and **Washington** — learned about best and promising practices from state and local officials in **Kentucky** as well as other state and national experts. The project highlighted Kentucky, which has undertaken significant efforts to enhance data and public health surveillance and expand comprehensive harm reduction services, including syringe services programs. Over the course of 10 months, the teams received technical assistance to develop and implement action plans tailored to their challenges and priorities. State teams were multidisciplinary and included governors' policy advisors, cabinet secretaries of public health and public safety, Medicaid and public health officials, representatives from substance abuse and behavioral health agencies, health care providers and law enforcement officials.

CONSIDERATIONS FOR GOVERNORS

Over the course of the learning lab, participating states identified insights that can inform other states' efforts to address the infectious disease consequences of the opioid epidemic.

State Leadership and Cross-Sector Collaboration Are Critical to Identifying and Effectively Addressing Community Needs for Harm Reduction

An effective response to the opioid crisis and its infectious disease consequences requires strong state leadership and interagency collaboration. States in the NGA learning lab emphasized the importance of having governor-appointed teams of state and local leaders who represent public health, behavioral health, public safety, Medicaid and other disciplines to share their priorities and work collectively to find solutions. In **Utah**, for example, collaboration between public health and public safety was key to advancing the state's goals for harm reduction, which included conducting a vulnerability assessment and promoting best practices among syringe services programs. The collaborative nature of the project enabled public health officials to better understand and address law enforcement concerns. For their part, several public safety officials highlighted how engaging with their public health counterparts contributed to a shift in their perceptions of harm reduction.

In addition to creating space for important and diverse viewpoints, cross-sector collaboration resulted in new partnerships to support data sharing, stakeholder engagement and strategic resource allocation. In **Delaware**, data on cases of HIV are now being incorporated into the state's Drug Monitoring Initiative, which collects and publishes quarterly reports on drug-related activity reported by public health and public safety officials. HCV and endocarditis data will eventually be included as well. In **Alabama**, the state's public health and behavioral health agencies are working together to implement screening for viral hepatitis at substance use disorder treatment providers across the state.

In several of the learning lab states, cross-sector, statewide collaboratives to address the opioid crisis provided an important avenue for elevating harm reduction priorities and demonstrating the state's commitment to addressing the increased risk of HIV, HCV and other blood-borne infections. At the recommendation of officials in **Michigan**, the state's Prescription Drug and Opioid Abuse Commission, established by former Gov. Rick Snyder, endorsed the expansion of syringe services programs to help "reduce the impact of infectious disease, increase the rate of participants seeking treatment, reduce overdose deaths, and save lives."[27] In **Utah**, infectious disease priorities have been incorporated into the Utah Coalition for Opioid Overdose Prevention Strategic Plan, which guides and supports opioid response activities in the state.[28]

Enhanced Public Health Surveillance and Comprehensive Data Sharing Are Needed to Identify Challenges and Effectively Target Resources to Areas of Greatest Need

States recognize the value of public health surveillance and data collection for assessing the risk of infectious disease outbreaks and deciding where to direct resources. CDC's 2016 assessment of counties at high risk for rapid dissemination of HIV and HCV was an important first step in raising

awareness and helping states identify vulnerable communities. **Alabama**, **Arkansas**, **Utah**, **Virginia**, and **Washington** are building on CDC's work and conducting their own vulnerability assessments — often in partnership with their state universities — using state and local data to gain a clearer picture of the infectious disease risks in their states, raise awareness in vulnerable communities and better target harm reduction resources. Similarly, in **Michigan**, state officials are directing funding to syringe services programs in 11 counties based on overdose and HCV rates as well as a survey used to assess community readiness.[29]

To build and maintain a strong public health surveillance system, resources and collaboration are essential to supporting ongoing data collection and timely analysis. With funding from CDC, **Arkansas** is hiring temporary staff to better analyze HCV reports, which will inform the state's vulnerability assessment. In **Virginia**, state public health officials have enhanced the state's viral hepatitis surveillance data entry capacity to better capture related data, including risk factors, and are engaging the state's Medicaid agency and health care providers to improve surveillance of other infections, such as soft tissue infections and endocarditis. Similarly, **Delaware** is working with a local hospital to track endocarditis cases associated with injection drug use.

Many states also conduct voluntary surveys of syringe services program participants to spot trends, tailor services and improve quality. Collecting deidentified data from syringe services programs can be especially important in states where authorizing legislation sunsets or where local approval is required to initiate or continue a program. **Utah** developed a voluntary survey to better understand how programs affect drug use; identify opportunities for quality improvement; and assess whether clients are accessing care for mental health, substance use disorder or sexually transmitted diseases (STDs). Survey results are analyzed along with intake and encounter data from syringe services programs to provide a fuller picture of how programs affect clients' behaviors, perceptions and ability to access other services.

Engaging a Broad Array of Local Stakeholders, Including Public Health Officials, Law Enforcement and Business Leaders, Is Critical to Building and Maintaining Support for Comprehensive Harm Reduction

Stakeholder engagement is central to the success of state and local efforts to establish comprehensive harm reduction programs that offer syringe exchange. In some states, requiring local approval has helped overcome legislative barriers to authorizing syringe services programs, though the additional requirements can also delay implementation. In **Kentucky**, the local approval process has provided a forum for public health officials to educate communities about the benefits of syringe services programs and garner the support of business owners, health care providers, law enforcement and others needed to win local approval and ensure access. As of April 2019, syringe services programs have been approved in 60 of Kentucky's 120 counties, with some counties having more than one location.

With Kentucky's experience in mind, lawmakers in **Alabama** reintroduced syringe services legislation with a new requirement for approval from the county commission or city council, depending on the jurisdiction. In response to stakeholder concerns, **Utah** revised its syringe services regulations to better ensure stakeholder engagement by requiring that new programs complete a readiness assessment in the communities in which they seek to operate.[30]

States in the NGA learning lab are pursuing a variety of strategies to engage stakeholders and garner support for harm reduction as part of an overall strategy to address the opioid epidemic, particularly among law enforcement. **Virginia** hosted comprehensive harm reduction training for state and local law enforcement officials that featured education on best practices, report-outs from comprehensive harm reduction programs and personal accounts from individuals for whom participation in a harm reduction program was instrumental to their recovery. In **Delaware**, members of the NGA learning lab team presented at a Delaware Police Chiefs' Council meeting and educated law enforcement leaders across the state on opportunities to promote harm reduction activities in their jurisdictions, following expansion of syringe services programs statewide. **Utah**

completed an extensive inventory of nonpublic health stakeholders and is conducting community listening sessions to identify and inform state efforts to address local concerns and support local solutions.

Highlighting the Role of Syringe Services Programs in Providing an Array of Health and Social Services Can Facilitate Stakeholder Buy-In and Increase Access to Such Programs

Syringe services programs provide people who inject drugs with sterile needles, syringes and other drug-preparation equipment in addition to collecting and disposing of used syringes. However, syringe services programs often provide an array of other services, as well, such as testing for HIV and HCV; wound care; recovery support; and referrals to other health and social services, including substance use disorder treatment.

In **Virginia**, comprehensive harm reduction programs provide clients with or refer clients to an array of health and social services (Box 1). Through an innovative pilot program, the commonwealth's behavioral health agency and the University of Virginia are partnering to provide HCV treatment via telemedicine at comprehensive harm reduction and opioid treatment programs. In **Utah**, state officials revised syringe services program regulations to clarify that programs can provide more holistic harm reduction services, such overdose prevention, condom distribution and referral to other services. To prevent overdoses, syringe services programs in **Delaware** provide fentanyl test strips so that clients can screen their drugs for possible contamination.

Box 1. Comprehensive Harm Reduction Programs in Virginia

In addition to distribution of sterile needles and syringes and disposal of used hypodermic needles and syringes, Virginia's comprehensive harm reduction programs must provide an array of services directly or through referral.[31]

Direct services:

- Individual harm reduction counseling that addresses actions and behavioral changes that reduce or eliminate use of drugs, injuries caused by drugs and transmission of infections through sex and injection drug use.
- Educational materials that inform participants about prevention and treatment and that reinforce harm reduction counseling.
- Condom distribution.
- Alcohol skin wipes that reduce the incidence of other infections, such as endocarditis, and bandages to reduce the potential for blood exposure after injection.
- Supplies that facilitate discreet transport of syringes, condoms and other materials out of the program site.

Services provided directly or through referral:

- Overdose prevention education and kits that include naloxone.
- Substance use disorder treatment.
- Mental health services.
- Social services.
- Testing for HIV, hepatitis B virus (HBV), HCV, tuberculosis (TB) and STDs.
- Hepatitis A virus and HBV vaccinations.
- HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis.
- Medical care and treatment for HIV; HBV; HCV; STDs; TB; and common complications of injecting, such as skin infections, cellulitis and endocarditis.
- Assistance with health insurance enrollment.

In addition to offering varied services, syringe services programs may differ in terms of their delivery and staffing models. Some communities find that mobile van services are preferable, particularly in rural areas. **Delaware** partners with Brandywine Counseling & Community Services to provide syringe services at fixed locations and through mobile outreach across the state. Other programs may be situated in local health departments or federally qualified health centers (FQHCs) such as the Family Health Center in **Washington**, where clients can more readily access a broader array of health care services. Syringe services programs embedded in FQHCs provide an initial entry point into the medical care system and facilitate access to health insurance for those who are uninsured or underinsured.

States Are Increasingly Using Federal Resources, Including Opioid Response Funds, for Public Health Surveillance and Comprehensive Harm Reduction to Address Infectious Diseases

Identifying funding to establish and maintain comprehensive harm reduction programs can be challenging for states and communities that have limited resources and competing priorities. Support often comes from a mix of state general-fund dollars; federal grants; grants from national and state foundations; funding or in-kind support from local partners; and, to a limited extent, Medicaid.

In 2016, Congress relaxed restrictions on federal funding for syringe services programs, allowing the use of federal dollars to support aspects of those programs (e.g., staffing, services) while maintaining the prohibition on funding for needles and syringes. To use federal funds, states must consult with CDC and demonstrate that they are experiencing or at risk of an outbreak of HIV or significant increases in viral hepatitis.[32] Thirty-six states and territories, the District of Columbia, a tribal nation and several local jurisdictions have completed this process to date.[33]

States that have completed the CDC consultation process are increasingly using federal opioid funding to address the infectious disease consequences of the opioid crisis through enhanced public health surveillance and comprehensive harm reduction services. **Utah**, for example, is using State Opioid Response Grant funding awarded by the Substance Abuse and Mental Health Services Administration to support HCV testing and other activities at syringe services programs. **Alabama** and **Arkansas** are among several states conducting HIV and HCV vulnerability assessments with supplemental opioid funding awarded under the CDC Cooperative Agreement for Emergency Response: Public Health Crisis Response. The cooperative agreement is also supporting new staff in **Washington** hired to develop a sustainable funding mechanism for harm reduction at syringe services programs modeled on **New York**'s approach (Box 2).

Medicaid and programs such as the Ryan White HIV/AIDS Program, Title X grants and the Substance Abuse Prevention and Treatment Block Grant (SABG) are other sources of federal funding that states are pursuing to finance comprehensive harm reduction. Unlike targeted opioid funds, which are authorized on a short-term basis and competitively awarded, these programs can provide a more sustainable source of support. **Michigan** is using SABG in combination with CDC cooperative agreement funds to support allowable expenditures at 11 syringe services programs in high-risk areas. **Delaware** and other states are also looking to the Ryan White HIV/AIDS Program and Title X family planning grants to support HIV testing, referrals, links to care and risk-reduction counseling at syringe services programs.

BOX 2. Leveraging Medicaid for Harm Reduction in New York State

In 2017, New York received federal approval to provide harm reduction services at syringe services programs under the state's Medicaid plan. As of July 1, 2018, syringe services programs can bill Medicaid for the development of a treatment plan; individual and group supportive counseling to help individuals understand how to reduce unhealthy behaviors; medication management and treatment adherence counseling; and psychoeducation support groups that address issues related to substance use, finances, incarceration and other factors. Medicaid managed care organizations are required to contract with participating syringe services programs and provide reimbursement for covered services.

Medicaid can serve as a sustainable source of funding for harm reduction services, particularly in states that have expanded Medicaid under the Affordable Care Act. However, establishing the relationships and systems to bill Medicaid can be a barrier for some syringe services programs. In addition, some clients may not be willing to provide the personal information needed for programs to bill Medicaid, given the stigma of drug use and fears of being identified as an illicit drug user by authorities, employers and others in the community.

LOOKING AHEAD

The alarming increase in HCV and other infections associated with injection drug use across the country has raised awareness of the benefits of comprehensive harm reduction and helped overcome political hurdles to syringe services program

authorization. Governors have an important opportunity to use opioid response resources and activities to prevent the spread of infectious disease and create additional pathways to substance use disorder treatment and recovery. Cross-sector collaboration among public health, behavioral health, public safety and other partners at the state and local levels will continue to be crucial to efforts to expand the continuum of care for people with addiction and address gaps in state and local capacity to prevent, detect and effectively respond to outbreaks.

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National Governors Association
444 North Capitol Street NW, Suite 267
Washington, D.C. 20001
202-624-5300 | www.nga.org