

Preventing HIV and Hepatitis C Among People Who Inject Drugs: Public Funding for Syringe Services Programs Makes the Difference

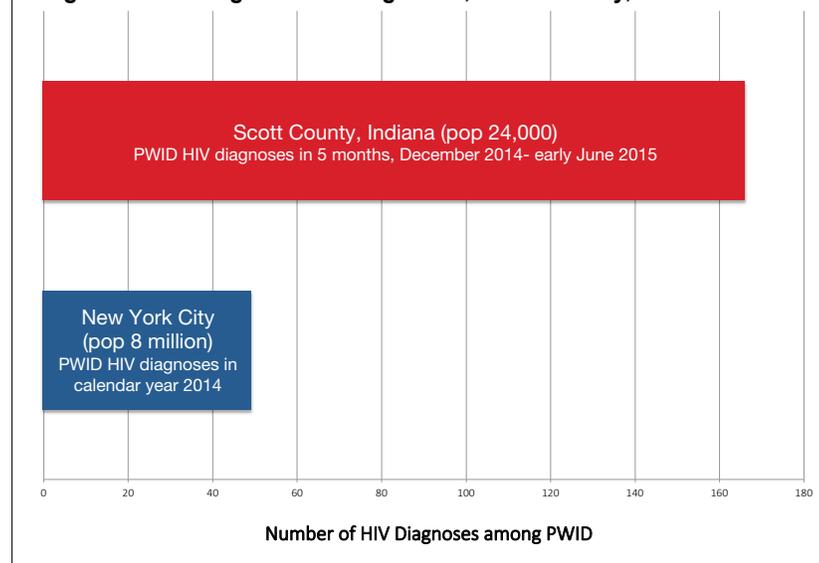
In this issue brief

- New HIV and Hepatitis C (HCV) diagnoses among people who inject drugs (PWID) have spiked in Indiana and Kentucky—two states where syringe services programs (SSPs) have not been available. Both states have implemented SSPs to stem the outbreaks. One county in Indiana alone has reported more HIV diagnoses among PWID in five months than New York City had recorded for PWID over a full year.
- Many scientific experts believe, and the preponderance of research studies shows, that SSPs are a highly effective strategy to prevent HIV and possibly hepatitis C among people who inject drugs.
- In spite of the overwhelming scientific evidence, a federal ban prohibits the use of public funds to purchase clean syringes or needles.
- There are 264 SSPs in the United States, but private and local funding for these programs has been floundering and existing programs are not nearly enough to meet the need.
- A new study by Bramson et al shows that public funding for SSPs is associated with reducing new HIV infections.¹

There are approximately 7 million people who have injected drugs (PWID) in the United States.² The Centers for Disease Control and Prevention (CDC) also estimates that HIV diagnoses among male and female injection drug users have declined by 48% from 2008 to 2014.³ Many attribute this decline to the provision of comprehensive, science-based HIV prevention programs for PWID, including syringe services programs (SSPs). These programs may also reduce the transmission of hepatitis C.⁴

However, there are troubling signs that we may begin to lose hard fought gains in preventing disease transmission among PWID. HIV diagnoses among PWID, once concentrated in large urban centers, are shifting to rural localities and are fueled by a growing prescription drug abuse epidemic. These changing demographics have recently taken center stage nationally, with a spike in HIV diagnoses among PWID in Indiana⁵ and with CDC ranking Kentucky number one in the nation for high rates of hepatitis C cases.⁶ Neither Indiana nor Kentucky

Figure 1: HIV diagnoses among PWID, Scott County, Indiana vs NYC



The Consolidated Appropriations Act, 2016 (Pub. L. 114-113) partially lifted the ban on use of federal funding for SSPs. Following this policy change, the Department of Health and Human Services (HHS) released guidance describing the process whereby states may request a determination of need and use funding from the Centers for Disease Control and Prevention (CDC) to establish new or expand existing SSPs. No new funding was devoted to syringe access and the use of federal funding for the purchase of sterile needles or syringes is still prohibited.

The fact is that disease transmission among PWID in Indiana and Kentucky could have been prevented. In this issue brief, we provide a snapshot of the overwhelming scientific evidence supporting SSPs to prevent disease transmission, and present compelling new evidence to continue efforts to align policy with science.

SSPs are highly effective at preventing HIV infections among people who inject drugs

There are currently 264 SSPs in the United States. (Figure 2). SSPs constitute one of the most effective, cost-efficient means of preventing HIV transmission.⁹ Research has shown that if PWID have access to sterile syringes, they share syringes less frequently or not at all.¹⁰ In terms of individual risk, a meta-analysis combining **three studies among PWID in New York City showed that those who did not participate in SSPs**

How SSPs work

SSPs provide free sterile syringes to PWID, an approach that reduces the likelihood that users will share injecting equipment.¹² Although the provision of sterile syringes is their core service, SSPs also safely dispose of used syringes, and many offer a range of health and supportive services, including on-site medical care; screening and counseling for HIV, hepatitis C, and sexually transmitted infections; distribution of condoms, food, and clothing; and referrals to substance abuse treatment.¹³ In addition, many SSPs help save lives by providing medications to prevent overdose and support drug treatment.¹⁴ By offering services that are specifically tailored to meet their needs, SSPs help PWID keep themselves and others safer and healthier. They are also able to connect PWID to health and supportive services they would otherwise not have accessed.^{15,16,17}

were three times more likely to become infected with HIV than those who did.¹¹

Such programs also serve to link people who use drugs to treatment and other services.¹⁸ Research has also shown that SSPs neither encourage nor increase drug use or neighborhood crime. On the contrary, by linking individuals who inject drugs with services, SSPs can help people stabilize their lives and sometimes stop injecting drugs.

“[SSPs] are widely considered to be an effective way of reducing HIV transmission among individuals who inject illicit drugs, and there is ample evidence that [SSPs] also promote entry and retention into treatment.”

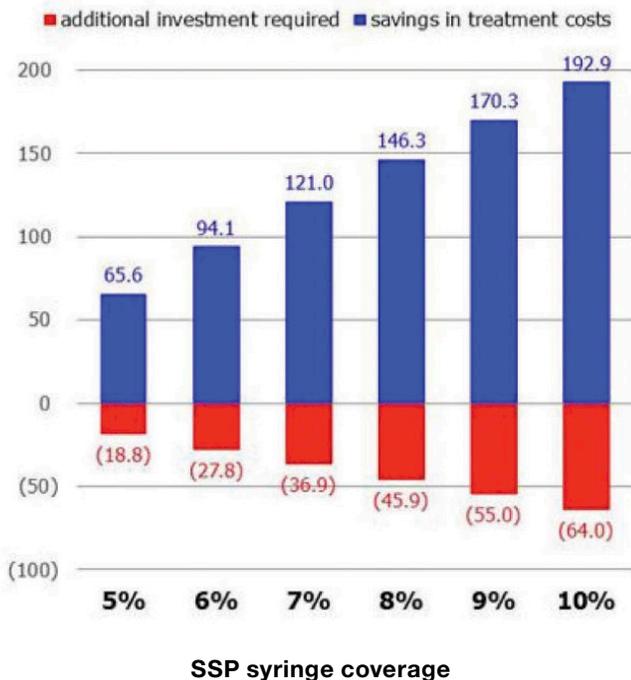
— Regina Benjamin, M.D., Former U.S. Surgeon General, *Federal Register*, February 2011

SSPs are also highly cost-effective, as it is vastly cheaper to prevent than to treat a new HIV infection.¹⁹ The lifetime treatment of an HIV-positive person is estimated to cost \$326,500 on average.²⁰ While HIV prevention requires ongoing efforts, the average per syringe cost of SSPs in 2011 was \$0.52.²¹

At the community level, an abundance of scientific evidence collected over decades has demonstrated that SSPs are effective in reducing HIV prevalence.²² In New York City, where HIV prevalence among PWID became extremely high early in the epidemic, the large-scale expansion of SSPs coincided with a dramatic decrease in HIV prevalence among PWID—from 54% in 1990 to 13% in 2001.²³ In five cities where HIV was introduced into the PWID population later in the epidemic, the implementation of SSPs and other HIV prevention interventions has limited HIV transmissions, maintaining HIV prevalence below five percent.²⁴

By providing for the safe disposal of contaminated needles, SSPs also reduce the risk of needlestick injuries among law enforcement officers and the public.²⁵ For example, in a study that systematically counted discarded syringes in Portland, Oregon, the percentage of days in which discarded syringes

Figure 3. Additional investment required & savings in HIV treatment costs (million 2011 USD) for each SSP syringe coverage level



Source: Nguyen, T.Q., Weir, B.W., Pinkerton, S.D., Des Jarlais, D.C., & Holtgrave, D. (July 23, 2012). Increasing investment in syringe exchange is cost-saving HIV prevention: modeling hypothetical syringe coverage levels in the United States (MOAEO204—Oral Abstract). Presented at the XIX International AIDS Conference, Washington D.C. Abstract available online at <http://pag.aids2012.org/Abstracts.aspx?SID=198&AID=17268> (date last accessed: December 11, 2012).

were found dropped by more than two-thirds—from 21.2% before to 8.8% after an SSP began operations.²⁶ Similarly, after Connecticut partially repealed needle prescription and drug paraphernalia laws, needlestick injuries among Hartford police officers declined by two-thirds—from 6/1,007 arrests in the six months prior to repeal to 2/1,032 arrests in the six months post-repeal.²⁷

Organizational Support for SSPs is robust and diverse

All major national medical and public health organizations support SSPs, including the American Medical Association,²⁸ the American Public Health Association,²⁹ the National Academy of Sciences,³⁰ and the American Academy of Pediatrics.³¹ So too do leading global bodies such as the International Red Cross-Red Crescent Society,³² the World Bank,³³ the World Health Organization, the Joint United Nations

Programme on HIV/AIDS (UNAIDS), and the United Nations Office on Drugs and Crime.³⁴ The American Bar Association strongly supports SSPs,³⁵ as does the U.S. Conference of Mayors.³⁶ Despite support from reputable organizations and scientific experts, Congress has lagged far behind the evidence and continues to bar public funding for SSPs.

SSP coverage in the United States is far below what is needed

“Coverage” refers to the capacity of SSPs to provide one sterile syringe per injection, as recommended by public health authorities. **In the United States, SSP coverage is very low, estimated to meet only three percent of the need.**³⁷ A recent analysis calculated that expanding SSP coverage to meet even 10% of injections would avert nearly 500 new HIV infections annually.³⁸ While such an expansion in service coverage would cost an estimated \$64 million, the cost pales in comparison to the estimated \$193 million lifetime cost of treating 500 new infections (Figure 3).

In a 2011 survey of U.S. SSPs, the 144 survey respondents reported operating programs in 117 cities in 32 states.³⁹ Collectively, SSP survey respondents reported exchanging a total of 36.9 million syringes in 2011; of those, approximately 22.4 million syringes (61%) were distributed by the 18 largest programs.

Many SSPs operate both fixed sites and mobile sites, offering services for an average of 27.4 hours per week. More than half of survey respondents (53%) reported being able to deliver syringes and other risk-reduction supplies to meeting spots. Almost all SSPs (90%) allowed secondary exchange (i.e., exchange of syringes on behalf of another person).

In addition to exchanging syringes, SSPs provided various supplies, services, and referrals; for example, virtually all (99%) provided alcohol pads and male condoms, and nearly all (94%) made referrals to substance abuse treatment. Many SSPs

“Early in 1998...I assembled the published studies...and was convinced that there were strong data favoring reduced transmission of lethal viruses by needle-exchange programs...”

— Harold Varmus, M.D., Nobel Laureate, Co-Chair, President’s Council of Advisors on Science and Technology, and former Director, National Institutes of Health. From *The Art and Politics of Science* (2009)

provided a range of other services as well, including counseling and testing for HIV (81%), hepatitis C screening (62%), STD screening (47%), and TB screening (26%). Nearly half provided hepatitis A and B vaccinations (40% and 42%, respectively).

Funding for SSPs has been declining. Among 85 SSPs that responded to the survey in both 2008 and 2011, the total budget for all programs decreased 8.9%, from \$16.6 million in 2008 to \$15.1 million in 2011. Among the 137 SSPs that reported financial information in the 2011 survey, individual budgets ranged from \$0 to \$1.1 million, with a median of \$45,000. Approximately one-third (36.5%) of SSPs operated with a budget of <\$25,000, 31.4% with \$25,000–\$99,999, and 32.1% with >\$100,000. While SSPs reported multiple sources of financial support, including private contributions (from individuals and foundations), the proportion of SSP budgets derived from public sources increased from 62% during 1994/95 to 84% in 2011, when it totaled nearly \$16.3 million. Since 2016, federal funds may be used to support certain components of SEPs; however, they may not be used to purchase sterile syringes or needles.

New study demonstrates relationship between public funding for SSP and lower HIV incidence

In a new study, researchers at New York City’s Beth Israel Medical Center show that laws allowing syringe services programs, permitting OTC sales of syringes, and providing

public funding for SSPs are associated with reducing new HIV incidence and maintaining already low levels of incidence among PWID.¹

Previous studies have demonstrated a strong relationship between receipt of public funding, the number of syringes distributed, the range and quantity of on-site services provided, and whether the SSP provides voluntary HIV counseling and testing.⁴⁰ In the new study, there was also a positive correlation between public funding and the number of syringes distributed by SSPs ($R^2=0.42$). The provision of public funding was also associated with SSPs offering a greater number of other services to PWID ($R^2=0.52$). Studies have also shown a strong inverse relationship between the number of syringes distributed by SSPs and HIV incidence among PWID. For example, between 1990 and 2002 in New York City, a period during which annual SSP distribution increased from 250,000 to 3 million syringes, HIV incidence declined from 3.55% to 0.77%.⁴¹ In the new study, states were clustered into three groups: 1) states with historically high rates of infection among PWID that remained high; 2) states with historically high rates of infection among PWID that transitioned to low rates of infection; and 3) states with historically low rates of infection among PWID that remained low. **All 15 states with SSPs that received public funding were in the high-to-low or low-to-low HIV incidence categories (Figure 4). In contrast, among the four states in the high-to-high HIV incidence category, none had SSPs that received public funding.**

Figure 4. HIV incidence and public funding, 1985–2012

States with high infection rates that remained high, 1985–2012	States with high infection rates that declined to low, 1985–2012	States with low infection rates that remained low, 1985–2012
<p>High new HIV infections yearly (>2%)</p> <p>Florida Louisiana South Carolina Texas</p>	<p>Connecticut District of Columbia Maryland Massachusetts Michigan North Carolina New Jersey New York Oklahoma Pennsylvania Tennessee Virginia Wisconsin</p>	<p>Arizona California Colorado Missouri New Mexico Ohio Oregon Utah Washington</p> <p>Low new HIV infections yearly (≤2%)</p>

Note: **Bolded** states are those that receive public funding for SSPs.

The case is clear: Public funding of SSPs prevents infection

The case for public support of SSPs has never been stronger. While it has long been understood that SSPs reduce the risk of HIV infection, help link chemically dependent individuals to vital drug treatment services, save money, encourage the safe disposal of syringes, and minimize the risk of needlestick injuries to law enforcement officials, it is now clear that public funding of SSPs is linked more broadly to reducing HIV incidence and maintaining already low levels of incidence among people who inject drugs, benefiting entire communities in turn.

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