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After the Emergency Department Visit: The Role of Harm Reduction Programs in Mitigating the Harms Associated with Injection Drug Use

An Information Paper

Injection drug use is a major public health problem in the United States (US). Cocaine, heroin, and methamphetamine are the most commonly injected illicit drugs, while opioids are responsible for the majority of overdose fatalities. Although recent emergency department (ED) efforts have focused on expanding capacity for buprenorphine induction for opioid use disorder treatment, the injection of illicit drugs carries specific health risks that require acknowledgment and management, particularly for patients who decline substance use treatment. Harm reduction is a public health approach that aims to reduce the harms associated with a health risk behavior, short of eliminating the behavior itself. This clinical review article examines the health complications of injection drug use and reviews the evidence base for two major harm reduction interventions - syringe services programs and supervised injection facilities - effective in reducing morbidity and mortality among persons who inject drugs.

INTRODUCTION

Injection drug use (IDU) is a major public health problem in the United States, causing grave harms to individual users, their families and communities, and society as a whole. IDU and the associated morbidity, mortality, and costs have been increasing rapidly, primarily due to rapid increase in prescription opioid use, the resurgence of heroin use, and emergence of illicitly produced fentanyl and analogues. The burden of injection drug use in the US is multifactorial and includes prevalence of use, direct health consequences of IDU, contribution of IDU to acquisition and transmission of blood-borne infections, and social and economic costs.

Persons who inject drugs (PWID) can be difficult to identify because of stigma and desire to conceal illegal activity. A recent meta-analysis combining survey data found that the lifetime prevalence of IDU in the US is 2.6% (95% CI 1.8-3.3%). Males inject drugs more frequently than females with lifetime use of 3.6% (CI 2.4-4.8%) compared to 1.6% (CI 1.1-2.0%). These estimates place the number of US persons who have ever injected drugs at approximately 6.6 million (range 4.6-8.6 million).[1]

IDU may lead to devastating health problems, ED visits, hospitalizations, and death for individuals. Drug overdose deaths, most commonly due to injected opioids, have been increasing rapidly for years. Total overdose deaths were 16,849 in 1999 and have risen every year to 70,237 in 2017, over 400% increase. About 68% of deaths in 2017 involved an opioid.[2] Prescription opioids were responsible for most deaths 1999-2009, with heroin increasingly responsible for overdose deaths starting in 2010 and illicitly-manufactured fentanyl contributing an increasing proportion of deaths after 2013, both typically injected.[3]

The 2011 DAWN study determined that there were 1.25 million ED visits involving illicit drug use. Cocaine (40.3% of these ED visits), heroin (20.6%), and methamphetamine (12.8%) were the most commonly injected illicit drugs. Frequently, concurrent use of alcohol or mixing of illicit drugs complicate illicit drug

ED visits. In this study, 27.9% of illicit drug ED visits also involved alcohol and 56.3% involved multiple drugs.[4]

The health risks associated with IDU are serious and often deadly. Illicit drugs have profound deleterious effects on health (Table 1). Health complications of IDU, however, also include the risks related to the injection process itself, namely: 1) transmission of bloodborne viral pathogens due to needle sharing, 2) inoculation of bacterial pathogens due to poor skin preparation and use of dirty injection equipment, and 3) vessel injury due to worn-down needles and poor technique related to rushed injection or injecting while intoxicated.

The risk for transmission of bloodborne viral infections is an important consequence of IDU. Hepatitis C virus (HCV) infection is the most prevalent infection associated with IDU. HCV prevalence rate among PWID aged 40-65 was 43.1%.[4] About 2.1% of all PWID are living with human immunodeficiency virus (HIV) infection. Bacterial inoculation resulting from contaminated drug preparation, poor injection site cleansing, and unsterile dirty injection supplies can lead to a range of infectious complications, from soft tissue infections (cellulitis, skin abscess) to bacteremia to infections due to hematogenous seeding of bacteria (endocarditis, septic arthritis, vertebral osteomyelitis, epidural abscess). Specifically, infective endocarditis (IE) due to IDU has been on the rise. From 2006-2013, heroin use doubled and in this same time period, the proportion of all IDU-related hospital admissions due to IE increased from 6 to 12%.[5] These infections require intravenous antibiotic therapy and frequently lead to complications including abscess, congestive heart failure, sepsis, and embolism.

Families, communities and society bear the burdens of huge costs of injection drug use due to damaged relationships, lost productivity, crime, and health care costs. Societal costs are difficult to estimate. However, the magnitude of costs can be estimated from studies on the burden of illicit drug use as a whole, prescription opioid abuse, some of which may be injected, and heroin use disorder, a major driver of costs for injected drugs.

Overall costs of illicit drug use in the US was estimated at $193 billion in a study published in 2011, using 2007 data. This cost includes misuse of prescription drugs and does not separate the specific cost of injection drug use.[6] Total costs are certainly much higher today. The most recent estimate of societal cost of prescription opioid misuse alone from 2013 data placed the cost at $78.5 billion.[7] An analytic cost model of heroin use reported in 2017 included cost of incarceration and crime; treatment for heroin use disorder; chronic infectious diseases, and their treatments; treatment of neonatal abstinence syndrome; lost productivity; and death by heroin overdose. This study estimated costs of heroin use disorder at $51.2 billion in 2015 US dollars.[8] Societal costs from all IDU probably approach $100 billion per year in the US.

HARM REDUCTION: A PUBLIC HEALTH APPROACH

Harm reduction is a public health approach that aims to reduce the harms associated with health risk behaviors, short of eliminating the behaviors themselves.[9] Efforts to reduce unhealthy dietary behavior and its health effects are representative of such a harm reduction strategy. The US Food and Drug Administration (FDA) legally mandates 'Nutrition Facts' labels on all food packaging to encourage and facilitate healthier food choices. Simultaneously, the FDA prohibits food manufacturers from using chemically modified partially hydrogenated oils known to have significant negative health effects.[10] Thus, rather than relying solely on consumer motivation, *changing the context* by ensuring food options are healthier can have greater positive impact.[11]

Similarly, vehicle safety modifications have led to the manufacturing of safer vehicles. An admittedly risky activity, driving is responsible for more than 32,000 crash fatalities annually.[12] Manufacturing modifications such as 3-point seatbelts, airbags, and collapsible steering wheels are *long-lasting protective*

interventions developed to reduce crash-related morbidity and mortality.[13] Hence, rather than outlawing driving altogether, federal and state legislation mandates adherence to vehicle manufacturing safety standards and *changes the context* by prohibiting driving while intoxicated and requiring driver competency testing and licensing.

Drug addiction is often considered a self-induced disease and abstinence, its cure. An abstinence-only approach, however, has failed to improve health and resulted in increased morbidity and mortality.[9] Legislation, policies, procedures, programs, and other interventions with a primary focus of preventing or reducing the harms of drug use *without* requiring abstinence are necessary to assist those with chronic dependence for whom abstinence may not be practical.[14] Harm reduction interventions can be implemented at various levels of Frieden's health impact pyramid (Figure 1).[11] Anti-drug law enforcement and legislative efforts, for example, *change the context* by reducing access to drugs. Manufacturing of naloxone rescue kits is a *long-lasting protective intervention* against opioid overdose fatalities. *Clinical interventions*, specifically for opioids, include supplying and training all first responders on the use of naloxone rescue kits. Following is a review of the two major clinical interventions currently available for improving the safety of IDU and reducing morbidity and mortality among PWID - syringe services programs (SSPs) and supervised injection facilities (SIFs).

SYRINGE SERVICES PROGRAMS (SSPs)

SSPs are community-based programs that provide sterile needles, syringes, and other injection equipment at no cost, as well as other services that benefit PWID and the broader community. The Centers for Disease Control and Prevention (CDC) and US Department of Health and Human Services (HHS) consider SSPs - also known as needle exchange programs, syringe exchange programs, and needle-syringe programs - an effective component in the prevention of HIV and HCV infections.[15]

The World Health Organization has long recognized the utility of SSPs in decreasing the risk of infectious disease transmission among PWID.[16] The first SSP can be traced to a pharmacist in Edinburgh, Scotland who dispensed sterile injecting equipment during a Hepatitis B virus (HBV) and HCV outbreak from 1982 until 1984 when stopped by authorities.[17] The first official SSP was opened in 1983 in Amsterdam, the Netherlands, also in response to a HBV outbreak.[18] The global HIV and acquired immunodeficiency syndrome (AIDS) epidemic of the 1980s helped fuel the establishment of SSPs across the world. In the US, the first SSP opened in 1987 in New Haven, CT, though it was largely an underground operation because drug paraphernalia possession was illegal.[19] The first legal US program began in 1988 in Tacoma, WA and in 1990, Hawaii established the first state-approved SSP.[19] Currently, the North American Syringe Exchange Network (NASEN) tracks the number of SSPs and maintains a directory of programs. As of 2015, there are over 225 programs in 36 states, the District of Columbia, Puerto Rico, and the Indian Nations.[20]

A variety of SSP models may simultaneously exist in a community and work together to provide services.[21] Most often, SSPs are individual specialized programs that either stand alone or are embedded in other social service or medical programs. Other programs may utilize pharmacies to provide syringes without a prescription. Less common ways include using a physician's prescription or through other health care services.

Additionally, programs can be fixed-site or mobile. Fixed-site programs are located in a building or a specific location and may include hospitals/clinics. Fixed-programs work best when located in areas with large populations of PWID. Benefits of fixed-programs include predictable hours, integration of other services, computer-based systems support, space for privacy, shelter from weather, and on-site storage. Mobile/street programs go out into the community on foot, bicycle, or motorized vehicles to provide services. They may roam the city or stop at specified locations and times. They may be independent or

serve as the outreach program of a fixed-program. Benefits of mobile/street programs include closeness to the drug scene neighborhood, less community resistance because they don't attract PWID congregations, flexibility of relocation to places of concern, informality, and ease of access.

Pharmacy programs may offer over-the-counter sale of syringes or accept claim vouchers provided by social service agencies. Voucher programs eliminate the purchasing cost of the syringes by the client. Benefits of pharmacy programs include longer hours, mainstream locations, and availability of other services/products. One major disadvantage can be staff reluctance to provide the service. Other potential disadvantages include the lack of syringe disposal services and minimum/maximum syringe limits per transaction.[21,22]

There are three syringe transaction models: (1) needs-based/negotiated distribution, (2) strict one-for-one exchange, and (3) one-for-one plus exchange. In the needs-based/negotiated distribution model, the program does not set a limit on the amount of syringes a participant can receive regardless of the number of syringes they return. Strict one-for-one exchange programs provide the participant with the exact number of syringes they return. These programs may use a voucher system so that should a participant not want as many syringes as returned, the voucher can be used at a later time to get additional syringes. The one-for-one plus exchange programs provide a predetermined number of extra syringes in addition to the ones provided as a one-to-one exchange. There are strengths and limitations to each syringe transaction model, however, the strict-one-for-one model may be the most limiting because if the participant does not have needles to exchange, they cannot get any or they may not be able to get as many as they need.

Some programs incorporate secondary or peer-delivery syringe distribution into their services. In this model, the SSP supplies syringes to PWID to distribute to their peer networks and offers them syringe disposal options. This model often provides commissioned peers a stipend for their services and works best in expansive geographic jurisdictions as part of a fixed-site program.

All SSPs must provide needle disposal services and comply with all federal, state, and local regulations for medical waste. Proper needle disposal is crucial to protecting participants and staff from accidental needlestick injuries. In addition to on-site sharps-containers, participants may be provided with portable-sharps containers. Proper disposal programs can also reduce the number of syringes "on the street" helping to protect the public. A study of the public safety impact of SSPs found 44 syringes/1000 census blocks on the streets of San Francisco as compared to 371 syringes/1000 census blocks in Miami, a city with no SSP.[23] Unsafe public syringe disposal was 34 times more likely in Miami.

Programs are required to have policies and procedures for handling infectious waste and staff must be supervised for adherence. Staff members and volunteers should be provided with HBV vaccination, personal protective equipment, access to hand-washing stations, hand-sanitizer, and proper cleaning supplies (eg, bleach). Rather than risk needlesticks by hand counting, staff are trained to estimate the number of returned needles/syringes by observation or by weight. In case of bodily fluid exposure, protocols for what to do and where to seek care should be in place.

Barriers to Implementation

One of the largest barriers to the implementation of SSPs is financial. For almost two decades, federal funds could not be used to support SSPs until the Consolidated Appropriations Act of 2010 allowed it with the caveat that funds not be used to purchase sterile needles or syringes for illegal IDU.[19,24,25] Guidelines for SSPs were issued by the HHS and CDC. HHS prohibits grantees "to use funds for SSPs in any location the local public health or law enforcement agencies deem to be inappropriate" and requires grantees to obtain annual certifications from these local agencies.[24] CDC guidelines require SSPs to be "part of a comprehensive service program" that includes linkages and referrals to substance use prevention and

treatment, mental health, and other support services.[25] Unfortunately, the act did not appropriate specific SSP funds and it was repealed in 2011.

In 2015, a modification to the act allowed the use of federal funds to purchase sterile syringes and needles "if the relevant State or local health department, in consultation with the CDC, determines that state or local jurisdiction, as applicable, is experiencing, or is at risk for, a significant increase in hepatitis infections or an HIV outbreak due to injection drug use, and such program is operating in accordance with State and local law."[24] It is unknown how many programs currently receive federal funding.

Funding sources for SSPs traditionally have come from local and/or state funding, non-governmental organizations, public health departments, and private donations. A study published in 2012 found that 97.7% of SSPs receiving either local and/or state funding had a department of health affiliation.[26] The funding source was not different across urbanization type. Overall, 31.4% received state funding, 37.9% no public funding, and 1.6% federal funding. Local-only funding was highest among SSPs exclusively serving urban areas (54.2%). This study, conducted one year after the ban was lifted, also found that 80.6% of programs intended to seek federal funding in the future and 62.2% anticipated barriers to the funding.

Other barriers to SSP implementation include institutional opposition, community opposition, and negative media portrayals.[27] Institutional opposition can include opposition from district attorneys, politicians, and law enforcement officials; as well as, legal opposition through drug paraphernalia laws and state and local laws that ban over the counter sales of needles. Community opposition is often organized by clergy and neighborhood business associations, and often originates from negative perceptions of PWID that are commonly fueled by unfavorable media portrayals. Opposition to SSPs usually involves a combination of different players and the contribution of each player can change over time. In New Jersey, for example, there was strong community support for a SSP in a town with high rates of PWID and IDU-related HIV; however, the governor and local officials opposed such a program and police officers arrested clients and volunteers.[27]

In the US, organized local support is crucial and direct action by grassroots activists and social movements, like the AIDS Coalition to Unleash Power (ACT UP), is often directly responsible for the establishment of SSPs. In fact, Tempalski, et al. found three independent predictors of a SSP presence in a metropolitan area: a high proportion of men who have sex with men, the presence of an ACT UP chapter, and a higher percentage of college-educated residents.[27] A high level of concern for HIV prevention and education lies at the center of the first two predictors, while greater political involvement, civic engagement, and receptivity to new scientific technologies explain the positive predictive value of educated residents. Surprisingly, resource availability, institutional opposition, and need did not predict the presence of a SSP.

Characteristics of Established SSPs

Most of the current data on SSPs comes from a 2013 survey of SSP program directors.[28] Researchers found that while the West and Northeast had the highest number of SSPs, the South had the lowest. Of the programs surveyed, 69% were urban, 20% rural, and 9% suburban. Rural SSPs exchanged fewer syringes than urban and suburban programs, and program budgets were dependent on the number of syringes exchanged. Mean annual budgets were $26,023 for rural, $116,902 for suburban, and $184,738 for urban SSPs. Urban programs accounted for 83% of budgeted funds. Local and state funding was not statistically significant between locations. The vast majority of program participants were males. Whites comprised the majority in all programs, however, urban SSPs reported considerably higher percentages of African-American and Hispanic participants. Heroin was the most common injection drug at all sites, with rural programs reporting higher opioid and amphetamine injection use. Rural and suburban programs were more likely to have full-time paid personnel and employ former drug users. According to the survey, common services offered included HIV counseling and testing, HBV/HCV testing, sexually transmitted infection

(STI) screening, referral to infectious diseases treatment services, pregnancy testing, mobile exchange, secondary exchange, naloxone distribution, and referral to medication-assisted treatment programs.[28] Other possible services are listed in Table 2.

Benefits and Limitations of SSPs

The greatest benefit of SSPs is the prevention of infectious disease transmission. In fact, the majority of SSPs were established in response to outbreaks. One of the earliest studies in 1997 found that among 81 cities worldwide, HIV infection increased by 5.9% per year in 52 cities without SSPs and decreased by 5.8% per year in 29 cities with SSPs.[29] Subsequent studies in the U.S. also found substantial reductions in HIV infections.[11,29,30] Indeed, the estimated incidence of HIV among PWID decreased by about 80% from 1990 to 2006.[31] The Joint United Nations Programme on HIV/AIDS (UNAIDS) recommends that in addition to substance use prevention and treatment services, SSPs provide 200 sterile syringes per injector per year to achieve a high level of coverage.[32]

The results for HCV reduction have not been as consistent as with HIV. There was a marked decline in HCV infections from 1992-2005 when targeted HIV reduction strategies, including SSPs, were implemented in select US cities.[33] One systematic review with meta-analysis actually found an increased risk of HCV seroconversion with SSP use (RR 1.62, 95% CI, 1.04-2.52).[34] Another study found insufficient evidence to either support or discount the effectiveness of SSPs in HCV infection prevention.[35] A review by Abdul-Quader found that 40% of studies showed a decrease in HCV infections.[35] The most recent systematic review found mixed results and concluded that SSPs could either increase the risk of HCV infection or have no effect.[36] Heterogeneity in study populations and inconsistent study outcomes probably account for the inconsistent conclusions.

Other unanticipated benefits of SSPs have been demonstrated. Some studies have shown higher rates of participation and retention in substance use treatment programs compared to those not using SSPs.[18] Additionally, SSPs facilitate access to the many other services that may be offered through these programs (Table 2). Finally, by decreasing improper needle disposal, SSPs also have a positive impact on public safety.

There are some limitations of SSPs. In addition to conflicting data on HCV infection reduction compared to HIV and HBV reduction, other limitations include their availability and accessibility. Although SSPs can be implemented at a moderate cost depending on the range of services offered, program costs and financial sustainability can be problematic. As previously described, most programs rely heavily on state and local funding, both of which are notoriously unstable sources of financial support subject to drastic swings in budget and ideology. Moreover, HHS and CDC guidelines[24,25], as well as federal, state, and local regulatory demands, may place unyielding burdens on programs trying to get established. Finally, regarding accessibility, SSPs are more frequently located in urban and suburban areas even though the rural areas may have significant or equal need. In cases where a rural program does exist, the actual physical location of the program may be a barrier to access due to lack of vehicle and/or public transportation options. Thus, funding sources and geographic location continue to pose serious obstacles to both the implementation and effectiveness of SSPs.

SUPERVISED INJECTION FACILITIES

According to CDC data, nationwide deaths due to drug overdose reached a record 70,237 in 2017 and approximately two-thirds of these were associated with opioids.[37] Medically supervised injection facilities, also known as safe injection sites (SISs) or supervised injection facilities (SIFs), are a harm reduction strategy that aims to reduce the risk of unintentional lethal overdose from illicit IDU and other associated

harms. Although SIFs provide many services available through SSPs (Table 2), the main goal of SIFs is to reduce drug overdose fatalities.

History and Characteristics of SIFs

Supervised injection in "drug consumption rooms" was first implemented as a harm reduction strategy in the mid-1980s in Berne, Switzerland.[38] In North America, the first of these facilities, *Insite*, opened in 2003 in the Canadian city of Vancouver.[38] Today, approximately one hundred supervised injection sites have been established across 66 cities in Europe, Canada, and Australia.[39] Despite the evidence, no legally-operating SIFs are currently in existence in the U.S. In recent years, various municipalities across the country have convened multidisciplinary task forces to conduct in-depth analyses of the evidence base and determine the potential benefits, challenges, and feasibility of establishing SIFs in their jurisdictions.

SIFs are legally-sanctioned safer injection facilities in which licensed health personnel can supervise drug injection. More than simply an indoor venue for drug use, these facilities provide a safe and hygienic space where PWID can access sterile injection supplies, inject under medical monitoring, receive overdose prevention education and safer injection technique instruction, undergo emergency overdose rescue when indicated, and obtain referrals to other potentially beneficial health and social service programs, including infectious disease and substance use treatment referrals.[40,41,42]

Impact on Morbidity and Mortality

The extant literature supports the assertion that SIFs save lives. Research from the Vancouver SIF offers evidence that SIF utilization reduces fatal overdoses. In a study published in 2011, drug overdose mortality was found to have decreased by 35% after the Vancouver SIF opening.[43] Using various mathematical models, this reduction in lethal overdoses was estimated to correspond to as many as 51 deaths averted during the four-year study period.[44]

In addition to reduced overdose mortality among PWID, SIFs have been associated with reductions in high-risk IDU practices such as injection in public spaces, rushed injection, injection without alcohol-based skin preparation, injection with shared or found needles, and unsafe disposal of injection equipment.[45,46,47] Although there is a lack of research on the direct impact that SIFs have on the rates of transmission of bloodborne pathogens such as HIV, HBV and HCV, the available evidence does show that PWID engage in safer injection practices after using a SIF,[48] leading to a reduction in viral transmission.[49,50]

Impact on Public Safety

Arguments often invoked in opposition to the establishment of a SIF are related to the perceived harms and inconveniences that illegal drug injection poses to the public. These may include concerns that SIFs will increase the number of persons who use injection drugs or the rate of drug-related crimes in areas near the SIF. Current research, however, do not support these assertions. In fact, the preponderance of the evidence suggests that SIFs can be beneficial to the communities in which they operate. One study found that there was no increase in the rates of assault and robbery or drug trafficking following the opening of a SIF, while vehicle thefts and vehicle break-ins rates were on the decline.[51] Moreover, multiple studies, including a systematic review, have failed to substantiate concerns that SIFs lead to increased drug use. On the contrary, research demonstrates that SIFs lead to a reduction in IDU in public spaces (eg, bus stations, beaches, parks), a reduction in the improper and hazardous disposal of needles, syringes, and other drug-injecting equipment, and a reduction in the rates of violence against women who are frequently at risk for coercion and exploitation around their use of injection drugs.[45,48,47,52] Gender-specific risks for HIV related to the

physical and social environments in which women inject may also be reduced by offering a legal and safe place to inject.[53,54]

Individual and Community Benefits

SIFs are particularly beneficial to highly marginalized members of society. A survey study among PWID in Ottawa, Canada found that individuals who injected in public spaces, required assistance to inject (a known risk factor for soft tissue infections, vessel injury, and transmission of viral pathogens), had tested positive for HCV, had experienced accidental overdoses in the previous year, and identified as LGBTQ, were the ones most likely to access SIF services.[46,55] A similar study in the US found that willingness to use a SIF among PWID correlated with daily IDU, homelessness, unintentional overdoses, and use of opioids.[56] In both these studies, the majority of PWID surveyed reported a willingness to use a SIF.[55,56] Indeed, the research suggests that by mitigating some of the environmental risks fueled by socioeconomic marginalization, SIFs benefit the most at-risk PWID and thus, society at large.

Barriers to Implementation

Partially spurred by the rapidly growing opioid epidemic among the white non-Hispanic demographic of the US population, harm reduction policy in the U.S. has advanced markedly in recent years.[39] The scientific research on SIFs is rigorous and the evidence overwhelmingly supports this clinical intervention as a harm reduction strategy. Nonetheless, implementing the use of SIFs remains a political challenge.[39,57] Opposition to implementation in the U.S. focuses on fears that SIFs encourage IDU by making the practice easier, safer, and more acceptable; attract more PWID to the area; and fuel drug-related crime. At the center of the political resistance to SIFs and other harm reduction strategies is the ideology that abstinence is the only solution to substance use. Unfortunately, abstinence ideology has influenced and guided policy without regard for the considerable body of evidence that addictive behavior change is a stepwise and non-linear process, a principle at the center of harm reduction (*Figure 2*).[58,59]

EMERGENCY MEDICINE AND HARM REDUCTION

As the *de facto* healthcare safety net and a major access point for underserved populations with socioeconomic and behavioral health risks,[60] EDs are a major component of public health and EPs are frontline agents of public health. EPs are at the forefront of ensuring that all segments of the population have access to the standard of care—including individuals unable to access care in other clinical settings, such as those experiencing homelessness, incarceration, mental illness, and drug addiction. Though little to no formal public health training is incorporated into residency training, EPs master harm reduction discussions through daily educational interventions with patients inquiring about how to prevent their next respiratory infection or reduce their risk of stroke. In other cases, harm reduction originates squarely with EPs asking about helmet use, tobacco smoke, and violence at home. Although IDU harm reduction is no different, political and legal challenges have complicated ED referrals to such programs despite their favorable profile as part of a broader, comprehensive approach to improving health.[61,62]

ED Referrals to Harm Reduction Programs

IDU involves a complex interplay of many factors such as race, traumatic life events, and social and gender inequalities. From a public health standpoint, EPs must establish strategies for caring for PWID and promoting harm reduction in a trauma-informed and non-judgmental way. Harm reduction in no way condones drug use or ignores its dangers. Similar to condom use advocacy for pregnancy and STI prevention, SSP use to prevent bloodborne infections, complications related to unsafe injection, and fatal overdoses should be encouraged in the ED. The NASEN maintains an online directory of SSPs

(https://nasen.org/directory/) and state department of health websites often contain similar information. EPs are encouraged to utilize these resources to identify local programs.

Harm reduction programs like SSPs and SIFs constitute key clinical interventions for IDU. EPs should offer information about harm reduction programs to PWID, particularly those who decline referral or transfer to long-term substance use treatment programs. For literate patients, a list of local harm reduction programs and resources can be automatically generated with the ED discharge paperwork via a smart-phrase in the electronic health record. For patients who require more assistance or request a referral, a social service consultation may be optimal as the referral process is often facilitated by pre-established partnerships with community-based programs. Although a streamlined system for referrals is ideal, accomplishing this can be challenging for EDs without the funding for designated personnel to facilitate the process (e.g., social workers) or for transportation to the programs.

CONCLUSION

Referrals to harm reduction programs are not always possible. In the case of SIFs (which are not operating in the U.S.) and in locations without access to SSPs, EPs can help lead and effect change by providing testimony about the human suffering, economic burden, and the demand placed on the healthcare system by IDU. Likewise, EPs who have studied or witnessed the positive effects of these interventions in the communities they serve can provide supportive arguments for expansion of harm reduction. Unfortunately, policy papers and research studies have not been enough to facilitate SSP and SIF implementation. It is therefore incumbent on clinicians, particularly EPs who treat the complications of IDU daily, to advance public health advocacy efforts on behalf of harm reduction for PWID and the communities supporting them.

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