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Implementing harm reduction in non-urban communities affected by opioids and polysubstance use: A qualitative study exploring challenges and mitigating strategies

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Abstract

Background: Harm reduction services, which typically provide overdose education and prevention with distribution of naloxone and other supplies related to safer drug use, help reduce opioid-related overdose and infectious disease transmission. However, structural stigma and the ongoing criminalization of drug use have limited the expansion of harm reduction services into many non-urban communities in the United States that have been increasingly affected by the health consequences of opioid and polysubstance use.

Methods: We conducted qualitative interviews with 22 professionals working with people who use drugs in cities and towns across Rhode Island and Massachusetts to understand challenges and strategies for engaging communities in accepting harm reduction perspectives and services.

Results: Our thematic analysis identified several interrelated challenges to implementing harm reduction services in non-urban communities, including: (1) limited understandings of harm reduction practice and preferential focus on substance use treatment and primary prevention, (2) community-level stigma against people who use drugs as well as the agencies supporting them, (3)

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data reporting and aggregating leading to inaccurate perceptions about local patterns of substance use and related health consequences, and (4) a "prosecutorial mindset" against drug use and harm reduction. From key informants' narratives, we also identified specific strategies that communities could use to address these challenges, including: (1) identifying local champions to advocate for harm reduction strategies, (2) proactively educating communities about harm reduction approaches before they are implemented, (3) improving the visibility of harm reduction services within communities, and (4) obtaining "buy-in" from a wide range of local stakeholders including law enforcement and local government.

Conclusion: These findings carry important implications for expanding harm reduction services, including syringe service programs and safe injection sites, into non-urban communities that have a demonstrated need for evidence-based interventions to reduce drug-related overdose and infectious disease transmission.

Keywords

Harm reduction; qualitative research; community research; law enforcement

INTRODUCTION

The Harm Reduction Coalition defines harm reduction as "a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use" (Harm Reduction Coalition, n.d.). Harm reduction approaches attempt to reach the client where they are with the goal of supporting the client to reduce harm. Syringe service programs, one component of harm reduction, provide a range of services to people who use and inject drugs, including sterile injection equipment (e.g., syringes), safer smoking kits, overdose education and naloxone distribution, condoms, HIV/HCV testing, and referrals for healthcare and drug treatment services. Abundant research supports the role of syringe service programs in reducing unsafe injection behaviours (Otiashvili et al., 2013; Palmateer et al., 2010), decreasing HIV and HCV transmission (Abdul-Quader et al., 2013; Aspinall et al., 2014), preventing drug-related overdose deaths (Hawk, Vaca, & D'Onofrio, 2015), and addressing a variety of other health outcomes (Vlahov, Robertson, & Strathdee, 2010; Wodak & McLeod, 2008; World Health Organization, 2004). A growing literature also supports the role of safe injection sites in reducing health harms for people who use drugs (Potier, Laprévote, Dubois-Arber, Cottencin, & Rolland, 2014).

Despite the evidence on the public health benefits of harm reduction, proponents of expanding and maintaining these services in smaller cities, towns, and non-urban areas often encounter significant political resistance (Burris, Strathdee, & Vernick, 2002; Des Jarlais, 2017). For example, two years after the injection drug-related HIV outbreak in Scott County, Indiana, nearby Lawrence County closed its syringe service programs against the recommendations of the Indiana State Health Commissioner, citing inaccurate concerns about such programs facilitating drug use and related moral objections (Hedger, 2017). More broadly, following the outbreak in Scott County, the U.S. Centers for Disease Control and Prevention issued a report identifying 220 rural U.S. counties that were highly vulnerable to HIV and HCV outbreaks and recommending broader implementation of syringe service programs (Abbasi, 2017). As of 2018, only 47 of these 220 counties were operating syringe

service programs, which the authors attributed to stigma surrounding addiction and the perceived “immorality” of harm reduction (Kishore, Hayden, & Rich, 2019). Opposition to harm reduction programs has also persisted in countries that are generally considered to have strong and longstanding national harm reduction policies such as in Canada (Hathaway & Tousaw, 2008; Hyshka et al., 2017; C. Strike & Watson, 2019).

Given the disconnect between the scientific evidence for and the frequent resistance to harm reduction at the local level, efforts are needed to engage local communities in developing and supporting tailored and targeted community-based approaches to addressing overdose and other drug-related harms. In recent years, local and community-based approaches to the overdose crisis have shown promise by bringing local culture and context into decision-making processes surrounding how to reduce drug-related overdose deaths (Albert, Brason, II, & CK, 2011; Alexandridis et al., 2018; Baker, Smith, Gulley, & Tomann, 2019; Brason 2nd, Roe, & Dasgupta, 2013; Griffin, 2020; Watson et al., 2018). These approaches have involved building coalitions of invested community members with the purpose of identifying local challenges and related strategies to reducing the harms associated with drug use within communities. Bringing diverse voices together can provide insight and support to address drug use at the local level.

The acceptability of harm reduction approaches within local communities is an important determinant of increased implementation of essential, evidence-based services to combat the overdose and opioid epidemic. However, community acceptance of harm reduction principles and services varies widely, and stigma against people who use drugs continues to be high, especially within rural communities (Baker et al., 2019; Rigg, Monnat, & Chavez, 2018).› Existing studies have primarily reported data from urban communities (Allen, Ruiz, & O’Rourke, 2015; Barry et al., 2019; Hathaway & Tousaw, 2008; Leece et al., 2019; Roth et al., 2019; C. J. Strike, Myers, & Millson, 2004; C. Strike, Rotondi, Watson, Kolla, & Bayoumi, 2016; C. Strike, Watson, Kolla, Penn, & Bayoumi, 2015; Wenger, Arreola, & Kral, 2011; Wolfson-Stofko, Elliott, Bennett, Curtis, & Gwadz, 2018). This study is based on in-depth interviews with behavioural health, harm reduction, drug treatment, and public health professionals in cities, towns and surrounding rural communities in Rhode Island (RI) and Massachusetts (MA), two states that have been disproportionately impacted by opioid use, polysubstance use, and injection drug use (Valente et al., 2020). We aim to better understand the local barriers and suggested strategies to increasing the acceptability and implementation of harm reduction programs in response to local drug-related epidemics.

METHODS

Study Design and Sample

This paper describes themes that emerged from a larger qualitative study focused on examining challenges with HIV prevention among people who inject drugs in cities and towns across RI and MA. In RI and MA, the rapidly increasing prevalence of opioid injection, polysubstance use, and fentanyl in local drug supplies has contributed to high rates of opioid-related overdose deaths as well as recent HIV outbreaks in both Boston and the smaller cities of Lawrence and Lowell (Health, 2017; Jones, Logan, Gladden, & Bohm, 2015; Kuehn, 2014; Leece et al., 2019; Park et al., 2020; Valente et al., 2020). Drawing from

local surveillance data, we identified cities and towns representing "hot spots" of overdose and HIV and HCV infections attributed to drug use that were outside the capital cities of Boston and Providence. We then worked within our professional networks to partner with community-based organizations to recruit people who inject drugs and professional key informants in cities, towns, and surrounding non-urban areas, excluding Boston and Providence. This analysis is restricted to professional key informants, who were eligible if they were ≥18 years of age and had experience working in public health and planning, harm reduction, HIV prevention, or related services for people who use drugs. To ensure that key informants represented a wide range of perspectives that could be helpful in understanding service implementation for this population, we used a purposive sampling strategy to recruit geographically-dispersed individuals with diverse roles and a range of experience in harm reduction, healthcare, drug treatment, local health departments and social service agencies. Eligible key informants provided verbal informed consent that was documented by study staff. The institutional review board of Brown University approved all study protocols.

Data Collection

Key informants first completed a brief quantitative assessment of their professional role, years at their current agency, and total years of experience working in HIV prevention and with people who use drugs. We then conducted in-depth qualitative interviews using field-tested, semi-structured interview guides containing open-ended questions about experiences working with people who inject drugs and in HIV prevention and other health and harm reduction services. Examples of questions included, *"Can you tell me a little bit about your job and related experience working with people who inject drugs?"* and *"What is it like to work with people who inject drugs in this town?"* Interviews lasted ~30 minutes. While the interview guide was not designed to explore perceptions of communities' acceptance of harm reduction, this topic emerged as such a central concern of key informants in early interviews that we decided through team discussions to pursue it in greater depth in later interviews. Interviews were audio-recorded and professionally transcribed. We continued recruiting and interviewing key informants until determining through regular team meetings that we had reached thematic saturation, or the point after which collecting additional data would be unlikely to yield substantially new or different insights on key topics of interest (Guest, 2006).

Data Analysis

We employed a collaborative codebook development process (DeCuir-Gunby, Marshall, & McCulloch, 2011; MacQueen, McLellan, Kay, & Milstein, 1998). First, six research team members (including two investigators and four research assistants) independently read selected transcript excerpts to generate potential codes and code definitions for topics of interest. We discussed and compiled potential codes into a preliminary codebook that team members then independently applied to a set of three full transcripts. This preliminary codebook included a number of codes related to the organization where key informants worked, issues within local communities, social justice concerns, needs of the populations they served (e.g., related to drug use, health conditions, and other services), and specific codes related to HIV prevention. We independently applied these codes to transcripts and

then met to compare code application, discuss discrepancies, and modify the codebook for application to another set of transcripts.

Through two additional rounds of this process, we continued refining codes and definitions until reaching consensus on the final codebook. Five analysts then used NVivo (v12) to independently apply final codes to their assigned transcripts, and each transcript was double-coded. Consistency was continuously monitored by a lead analyst who held regular discussions of coding progress through weekly calls. In-depth, thematic analysis then involved using a primarily deductive approach to synthesize data coded under organization-specific, location-specific, and social justice-related codes, examining the challenges communities faced adopting harm reduction approaches, as well as strategies communities have tried that show promise. Findings are illustrated in the sections below using representative quotes.

RESULTS

Among 22 key informants, 13 (59%) were from Massachusetts and 9 (41%) were from Rhode Island. Key informants spanned a range of organizations from drop-in HIV testing centres, health centres and hospitals, substances use clinics, syringe service programs, regional planning agencies, public health departments, and police departments. The median number of years that key informants reported working for their organizations was three years (interquartile range [IQR]: 1–6), and their median years working professionally with people who inject drugs was eight years (IQR: 3–12).

In qualitative interviews, key informants described increasing public interest in addressing drug-related harms within their communities. Participants described a range of services currently available to support people who inject drugs, including homeless shelters, drop-in centres, food banks, and social service agencies. In all communities, syringe service programs were the preferred places for people who inject drugs to access syringes and other harm reduction supplies; although pharmacies, medical offices, emergency rooms, and other agencies were also mentioned briefly, they tended to not be preferred sources of syringes for this population due to addiction-related stigma. Key informants identified several challenges they had experienced implementing harm reduction programs, as well as strategies they had used (or that could be used) to increase local buy-in and acceptability of harm reduction. We begin by describing four key challenges to implementing harm reduction within these communities, and then present the four identified strategies.

Challenges

Despite the availability of syringe service programs in non-urban communities, key informants' narratives revealed four major challenges to more widespread local implementation of harm reduction services, including: (1) limited understandings of harm reduction and preferential focus on substance use treatment and primary prevention, (2) community-level stigma against people who use drugs and the agencies supporting them, (3) lack of acknowledgement or reporting about local patterns of opioid use, polysubstance use, and related health consequences, and (4) a "prosecutorial mindset" against drug use and harm reduction approaches generally.

Challenge 1: Limited understandings of harm reduction and preferential focus on substance use treatment and primary prevention—In many interviews, participants identified that a major challenge to communities adopting evidence-based harm reduction strategies is a focus on "avoiding" or "fixing" the problem of drug use by funding and advocating primarily for prevention and treatment services, rather than acknowledging ongoing drug use and the need to keep individuals safe while using drugs. As this staff member at a local health department that spans a large rural county explained:

> I think there's a real focus, at least in our area, [on] what I call the bookends of this crisis: [people in the area] want to do primary prevention with children, bright, shiny, hopeful children…because they have their whole lives ahead of them. And then they want to talk about recovery. And there's a real resistance to what I call the middle part. The grey area. And people, I think, intellectually as well as emotionally, can't wrap their heads around it…They're not comfortable with it.

Advocates of harm reduction experienced resistance to discussing harm reduction services because community members were not comfortable with accepting ongoing drug use. As described by a syringe service program director in a small city, "People don't want to hear about harm reduction programming. They only want to hear about getting everybody into treatment and making them non-users."

Even when trying to educate community members and leaders about harm reduction, key informants experienced resistance and noted that community members preferred services that were directly targeted at reducing drug use, as explained by a syringe service program outreach worker whose work spanned a large rural area:

> People don't really know what we do, so we try to get out into the community as much as we can and educate, and as soon as you educate somebody, usually they kind of get what's going on. But people are still afraid of it. People are nervous…I get backlash all the time. People say stuff, [like] it's my fault that people are using [drugs]. And it's definitely harder [here] than when I worked in [the state capital]. People really don't understand what we're doing, and we're still kind of the "bad people."

Challenge 2: High levels of community-level stigma against people who inject drugs and the agencies supporting them—Related to a lack of understanding about harm reduction programs is the general stigma interviewees described against people who use drugs and the staff and agencies serving the population. Participants described stigma coming both from specific sources (e.g. law enforcement), as well as from the general community. As one syringe service program director in a mid-sized city explained:

> In terms of our clientele, the people who are actively using, there's a lot of stigma [against them]. There's a lot of stigma against our program. When it came out in the local paper that we were operating a needle exchange, there was a lot of public backlash…that came about purely, in my opinion, as stigma against our program. People see us as, quote, "enabling people." And people also blame us for every improperly discarded syringe in the city [like it] is our fault. I've been in meetings where first responders and law enforcement have basically blamed me personally

> for needles on the ground in the city…I've been made to feel very uncomfortable at meetings that are about the local opioid epidemic.

In describing their own and their clients' experiences feeling stigmatized in the community, a syringe service program director also described the stigma and blame related to drug use from both the community at large and from staff at other health service and safety agencies. By being the focus of the blame for opioid- and other drug-related issues within the city, this program director felt uncomfortable and marginalized attending meetings focused on the overdose and opioid epidemic itself.

Challenge 3: Data reporting and aggregating leads to inaccurate perceptions about local patterns of substance use and related health consequences— Participants expressed concerns about the ways in which local health data were reported and aggregated, which resulted in downplaying the nature and true extent of drug-related health harms in their communities. One public health department worker explained that drug-related overdose deaths in their mostly rural region were presented in a way that obscured the extent of the problem, which they believed was related to the presence of a wealthily community in their region:

> There's a real stigmatizing attitude [in that community]. I can show you the data… in [town] specifically, where there's a huge amount of money [and] you have things that will be reported or not reported creatively…I don't know why all these 30-year-olds are just dying peacefully at home, and…not talked about.

Relatedly, key informants identified that surveillance data on HIV diagnoses are linked to cities where the diagnoses occur and do not necessarily identify the places where individuals receiving the diagnoses reside. In one rural community, a syringe service program staff member described how the presentation of HIV surveillance data resulted in misrecognition of local HIV transmission related to injection drug use:

> [People in] the police department say to me, what do you mean people still get HIV? So what's happened is, our people that are coming back to [the area], getting tested in [other nearby cities] because they're going to treatment or [the] hospital, and then they come back here. We have five or six people in a pocket right now that were infected [here] but they were tested elsewhere. So, people are thinking that there's no [HIV] outbreak, or whatever you want to call it, in this area. So, it's really hard to get that messaging across. Because even [the state department of health] says it's not happening [here].

Due to how surveillance data are reported and aggregated, community members and leaders may not view syringe service or other harm reduction programs as necessary.

Challenge 4: A "prosecutorial mindset" against drug use and harm reduction —Key informants identified persistent beliefs within their communities that drug use and harm reduction should remain criminalized. Even in these two states, where possessing syringes or other drug use equipment had been decriminalized, informants perceived that some police officers and police departments continued targeting clients of harm reduction services. For example, their clients reported being arrested for existing warrants,

homelessness, or violations of other "public decency" laws. One public health department worker identified the ways in which this "prosecutorial mindset" prevented clients, especially individuals from communities of colour, from accessing harm reduction services, ultimately contributing to more dangerous drug use in their community:

> We actually had the local police [chief] state that he was going to camp outside the syringe access program and bust people…We still have a real mentality of prosecuting people who sell fentanyl…We have a really high prosecutorial mindset when it comes to all substances, and there's a very real risk for people who are actively using to not engage with anyone [or services] because there could be a tipoff. The [police] say they're not arresting people for simple possession, but I beg to differ in what I see, specifically in different communities, low-end communities, and communities of colour…Until there's a climate change as far as law enforcement and the prosecutorial mindset, people will stay in the closet, engaging in high-risk activities that put them on more danger, without the support that they need.

A clinic program manager in a small city also described how punitive approaches towards people who use drugs negatively impacted individuals' willingness to engage in both support services and harm reduction services:

> The fact that you can still get arrested for this stuff makes people furious. To the extent that if you're a parent, and [the department of family services], depending on the [case] worker, may or [may] not view this as an illness, but they have an opportunity to revoke or confiscate your children. Those things have real-life consequences on people's willingness to talk about this stuff, or to seek treatment.

While key informants outlined challenges to community acceptance of harm reduction, they also identified strategies that they or other local agencies had developed to overcome these challenges, which are summarized in the sections below.

Strategies

From key informants' narratives, we identified specific strategies that communities could use to mitigate the key challenges to implementing harm reduction, including: (1) identifying local champions to advocate for harm reduction strategies, (2) proactively educating communities about harm reduction approaches, (3) improving the visibility of harm reduction services within communities, and (4) getting buy-in or commitment from a wide range of local stakeholders including law enforcement and local government.

Strategy 1: Identify local champions to advocate for harm reduction programs

—Key informants from several different communities discussed the need for champions in local leadership positions who were committed to advocating for harm reduction services. As one syringe service program coordinator in a mid-sized city described, a city council member had helped secure local approval for their program:

> We were surprised at how well [the syringe service program] was actually received once it was approved...We have a city councilwoman who is wonderful and has been an advocate for [us] and all the work that we do…That's been great.

Other key informants described timing particular advocacy strategies around the politics of local governmental leaders. As a public health department worker explained, local advocates undertook critical efforts surrounding the opening of a syringe access program while a particular mayor who was known to be progressive and supportive of harm reduction was still in office:

> When we worked on getting the first syringe access program open in [town], we did that because the mayor at the time was very, very progressive and we had a huge HCV [public health] campaign. The community was ready. We had the typical problems, a little bit…but the community and the board [of health] were all on board as this was a public health issue, so that once we got things in motion with [the state], it went relatively quickly and was a huge success.

Strategy 2: Proactively and intentionally educate communities about harm reduction approaches—Many of our key informants had worked in harm reduction programs for years, and some had worked in multiple communities. One respondent explained how their first attempt to institute a syringe service program in a community was met with considerable pushback because they tried to implement it too quickly without providing enough education and getting enough buy-in from both the broader community and local decision-makers. The syringe service program manager whose agency spans a number of rural communities explained that they now engage in a slower process of community discussions and education prior to opening a syringe service program:

> I think the way that I'm trying to approach these conversations now is to do things more proactively. With [town] I think it happened perfectly. There was a lot of support from the county… [and] the Board of Health as well. I went in and talked about what [syringe service programs] do, and the data behind it. I think also approaching the conversation in a diplomatic way too, not going in, you know, guns blazing [but] going in from more of a view that this is an opportunity to educate…I think that approach really helps. Be available to answer questions and whatnot.

This syringe service program manager reflected on two important strategies to employ with these community conversations. First, it was important that the process was slowed down to intentionally engage in conversations and provide education about harm reduction. Second, the tone and intention, "not going in guns blazing," helped keep conversations productive and focused on the potential benefits of syringe service programs. This approach, combined with the support of the local champions in the county and board of health, made local discussions about supporting a syringe service program in this community more effective.

Strategy 3: Improve the visibility of harm reduction services within communities—In addition to increasing community-level education on the effectiveness of harm reduction, addressing perceptions of stigma against syringe service programs and their clients required some agencies to try to increase their visibility within communities. By participating in community meetings and working to reduce the number of discarded syringes observed in surrounding areas, one program coordinator at a syringe service program in a mid-sized city perceived that the community viewed their agency as a support rather than a threat:

> We've always been very out there and visible in our community. We do a lot of syringe pick up. I've even personally sat in on different neighbourhood community meetings in the field. [They say] "Syringes are all behind here," and so I'll say "Okay, I'll send a staff member out." And then passing out business cards, "If you see them, give us a call." You know, even if they never call, at least having a contact…Our program now takes in way more syringes than it gives out, so that's always a nice number to kind of project back into the community.

This syringe service program manager identified how they increased their visibility in a positive way by: 1) attending meetings where they could make people aware of the services they provide, 2) being available to collect discarded syringes, and 3) using process data related to their program (e.g., demonstrating that they collect more syringes than they give out) to highlight the positive role their agency plays within their community.

Strategy 4: Engage a wide range of local stakeholders to share information and resources—To overcome issues related to the "prosecutorial mindset" regarding drug use and harm reduction described above, one public health department worker described how a neighbouring community opioid task force joined together with a supportive Addiction Medicine physician and local law enforcement to provide support for drug treatment and harm reduction:

> It's very different in our neighbouring county, with the [county] Opioid Task force, but they have a very progressive sheriff department…They're very connected, they're doing MAT [medications for opioid use disorder] in the jails, they do post-overdose engagement stuff…They're just doing [an] enormous amount of really good work. [A local addiction medicine physician] works directly with them and [the physician] is just very, very, very encouraging… [but] not all rural areas are like that.

By developing an opioid task force and engaging with local stakeholders, including medical professionals and law enforcement, this rural community was able to expand services for individuals in jail and provide additional services for individuals after overdose.

DISCUSSION

Due to the harmful impact of drug-related overdose epidemic on communities across the United States, there is an urgent need for a broad array of evidence-based responses. However, implementing evidence-based harm reduction services within communities that are not accepting of harm reduction approaches generally undercuts continued efforts to reduce opioid-related mortality. In this study, we identified professional key informants' perspectives on challenges to and strategies for implementing harm reduction services—primarily syringe service programs—in small cities and towns in the U.S. Northeast. We identified challenges relating to gaps in knowledge and information about drug-related overdose and harm reduction, and the impact of structural and community-level stigma on the provision of services to people who use drugs. We highlighted potential strategies to overcome some of these challenges, including identifying local champions and getting buy-in from key stakeholders (i.e., local government), educating community members on what

harm reduction is and why it works, and improving the visibility of harm reduction services within communities. Although this study is largely based on key informants' experiences with syringe service programs, which comprise a widely accessed and recognized form of harm reduction in the U.S. Northeast, we believe that our findings and recommendations are also relevant for efforts to expand other types of harm reduction services that meet with local resistance including safe injection sites (Lange & Bach-Mortensen, 2019; Potier et al., 2014).

Our research points to the pervasive role stigma plays in affecting perceptions of people who use drugs as well as the agencies that support them. Our findings point to strategies used to increase visibility and provide education to local community members to strengthen support for harm reduction and decrease stigma against harm reduction programs and their clients. Previous research suggests that "non-elite actors," such as service staff or other advocates outside government or other high status role, can be effective in supporting and advocating harm reduction (Baker et al., 2019). Other research suggests that professional and graduate students are in a unique position to provide advocacy because of their experience with complex bureaucracies and experience with interpreting analyses (Barbour, McQuade, & Brown, 2017). Previous research on stigma surrounding drug use has focused on identifying communication and discussion-based strategies to reduce negative perceptions and attitudes. For example, one study used educational leaflets with positive depictions of people who use heroin to reduce stigma (Luty, Rao, Arokiadass, Easow, & Sarkhel, 2008). Another study suggested that motivational interviewing could help decrease stigmatizing attitudes towards people with alcohol dependence (Luty, Umoh, & Nuamah, 2009). While this work is promising, individual- and interpersonal-level interventions are likely insufficient on their own. Of concern, we identified addiction-related stigma publicly emanating from local leadership and citizens in the form of antagonism against programs supporting people who are actively using drugs. These findings mirror findings from other settings identifying political and law enforcement response to harm reduction, community rejection and "not in my backyard" (i.e., NIMBY) attitudes, and general government inaction towards services to support people who use drugs (Sharp, Barnett, & Vroom, 2020; Syvertsen & Pollini, 2020; Tempalski, Friedman, Keem, Cooper, & Friedman, 2007). More research is needed to develop multi-level, multifaceted interventions to address community- and societal-level stigma against substance use and addiction and identify strategies to motivate positive change in community members' and leaders' attitudes towards substance use and addiction. While it is helpful and necessary to address the "bookends" of the overdose crisis (e.g., through ongoing investment in primary prevention and treatment of substance use disorders), as our informants and researchers working in other settings have argued, it will also be imperative to reduce stigma around substance use, addiction, and harm reduction (Hawk et al., 2015).

Overall, our results suggest that small cities, towns, and rural communities need more widespread support for harm reduction strategies including increased access to naloxone and supplies to reduce infectious disease transmission. Small cities, towns, and rural communities in the United States have compounded challenges of lack of resources, high rates of poverty, low levels of education, and lack of access to healthcare (Clary, Ribar, Weigensberg, Radel, & Madden, 2020; Leider et al., 2020). In addition, drug use in rural

areas may be perceived to be less “visible,” occurring within homes or private areas (Parker, Jackson, Dykeman, Gahagan, & Karabanow, 2012). These combined challenges create a setting that is significantly different from urban areas where novel interventions tend to be developed and piloted. Researchers are currently working on ways to engage broad constituencies and stakeholders across communities to unite in fighting the opioid crisis in several states and countries (Albert et al., 2011; Alexandridis et al., 2018; Baker et al., 2019; Brason 2nd et al., 2013; Griffin, 2020; National Institutes of Health, n.d.; Watson et al., 2018). Current studies are assessing ways to engage local community coalitions to identify evidence-based practices to address opioid misuse, opioid use disorder, and overdose (Chandler, Villani, Clarke, McCance-Katz, & Volkow, 2020; Sprague Martinez et al., 2020). Studies like these could lead to the development and testing of effective strategies to reduce community-level stigma, building on the work presented here to engage communities in reducing opioid-related fatalities.

All community-level interventions to provide services to people who are actively using drugs are predicated on a policy environment that supports harm reduction. Our participants identified ways in which data may be misrepresented or misinterpreted, thus altering perceptions of drug use within local communities. Given the challenges non-urban communities face related to funding resources, poverty, poor access to healthcare, and other social determinants of ill health, it is particularly important that data reporting is accurate and data are interpreted in meaningful ways to appropriately drive policy. Improvements in the collection and reporting of surveillance data may help increase transparency, and engaging community members in this process could help improve local understandings of the true impact of addiction in non-urban areas. Since surveillance data often drives state funding and other forms of resource allocation, the communication and understanding of these data require further investigation. As our key informants suggested, even when data are reported accurately, there are many possible interpretations. We are unable to ascertain whether any of the misrepresentations of data reported to us in this study were intentional or accidental, or what the full series of consequences might have been. Nevertheless, our study points to the need to more fully and accurately capture and disseminate geographic data on fatal and non-fatal overdose, HIV/HCV diagnoses, and harm reduction service access so that non-urban communities can be better equipped to reduce drug-related harms and improve health outcomes locally.

In our study, participants recognized the compounding impacts of prosecuting drug use and harm reduction on communities of colour. In 2019, drug use was broadly consistent by race and ethnicity in the US (White – 22.1%, Black or African American – 22.4%, American Indian and Alaska Native – 24.7%, Native Hawaiian and Other Pacific Islander – 15.6%, Hispanic or Latino – 19.1%) (Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, 2019). However, drug policy has disproportionately impacted people of colour for drug-related crimes. American Indian, Alaskan Native, Latino, and Black/African American people are more likely than white people to be convicted of and incarcerated for drug-related misdemeanours and felonies (Camplain et al., 2020). These elevated levels of arrest and incarceration are partially due to racist practices such as “stop and frisk” tactics designed to “combat” the “war on drugs” (Alexander, 2020). Moreover, research is exploring the interconnections between social

locations and risk environments to highlight how different “intersectional risk environments” may produce or mitigate drug-related outcomes (Collins, Boyd, Cooper, & McNeil, 2019). In response, there is a call to confront structural racism and implement antiracist public health practices to address the opioid crisis (Kunins, 2020). These efforts will be critical to addressing the broader “prosecutorial mindset” highlighted in our findings.

There are several limitations to this study. First, we limited our geographic focus to areas outside the well-resourced capital cities in two states in the U.S. Northeast and recruited key informants through our professional networks and existing agencies providing services to people who use drugs. Thus, our sample likely includes individuals more supportive of harm reduction working in communities where some harm reduction services already exist. An additional limitation inherent to the purposive sampling we undertook in this qualitative study is that we are unable to know how generalizable our findings are. While our findings are based primarily on examples from key informants’ experiences with SSPs, we believe that our findings are informative for efforts to expand other types of harm reduction services (e.g., safe injection sites); nevertheless, this would require confirmation through additional research. Furthermore, because the emergent themes reported here were not primary questions within the larger qualitative study on HIV prevention needs of people who inject drugs, we did not systematically ask about these topics and may have missed opportunities to probe systematically about the challenges or strategies identified. Future research is needed to more thoroughly explore these topics and determine the efficacy of various strategies for improving community acceptance of harm reduction.

Nevertheless, this paper highlights significant challenges in implementing and sustaining evidence-based harm reduction services that will be critical in addressing local opioid and polysubstance use epidemics in cities and towns where such services have not historically existed. As demonstrated by recent data on overdose and other health consequences of opioid use and injection (e.g., rural HIV outbreaks), the opioid crisis does not discriminate by geography or population density. Our respondents highlighted how engaging local harm reduction champions, providing proactive education about harm reduction, increasing the visibility of harm reduction, and getting buy-in from a wide group of stakeholders were all central to improving the conversation around harm reduction for people who use drugs.

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