Title

"Another Person Was Going to Do It": The Provision of Injection Drug Use Initiation Assistance in a High-Risk U.S.—Mexico Border Region

Journal

Substance Use & Misuse, 54(14)

ISSN

1082-6084

Authors

Mittal, Maria L

Guise, Andrew

Rafful, Claudia

et al.

Publication Date

2019-12-06

DOI

10.1080/10826084.2019.1648514

Peer reviewed

HHS Public Access

Author manuscript

Subst Use Misuse. Author manuscript; available in PMC 2020 August 07.

Published in final edited form as:

Subst Use Misuse. 2019 ; 54(14): 2338–2350. doi:10.1080/10826084.2019.1648514.

"Another person was going to do it": The provision of injection drug use initiation assistance in a high-risk U.S.-Mexico border region.

M. L. Mittal[a,b], **A. Guise**[a,*,c], **C. Rafful**[a,d], **P. Gonzalez-Zuñiga**[a], **P. Davidson**[a], **D. Vashishtha**[a,*], **S. A. Strathdee**[a], **D. Werb**[a,d]

[a]Division of Infectious Diseases and Global Public Health, Department of Medicine, University of California San Diego, La Jolla, USA

[b]Facultad de Medicina, Universidad Xochicalco, Tijuana, Mexico

[c]Division of Health and Social Care Research, King's College, London, UK

[d]Centre on Drug Policy Evaluation, St. Michael's Hospital, Toronto, Canada

Abstract

Background: Persons who inject drugs (PWID) play a key role in assiting others' initiation into injection drug use (IDU). We aimed to explore the pathways and socio-structural contexts for this phenomenon in Tijuana, Mexico, a border setting marked by a large PWID population with limited access to health and social services.

Methods: *Preventing Injecting by Modifying Existing Responses* (PRIMER) is a multi-cohort study assessing socio-structural factors associated with PWID assisting others into initiating IDU. Semi-structured qualitative interviews in Tijuana included participants ≥18 years old, who reported IDU within the month prior to cohort enrollment and ever initiating others into IDU. Purposive sampling ensured a range of drug use experiences and behaviors related to injection initiation assistance. Thematic analysis was used to develop recurring and significant data categories.

Results: Twenty-one participants were interviewed (8 women, 13 men). Broadly, participants considered public injection to increase curiosity about IDU. Many considered transitioning into IDU as inevitable. Emergent themes included providing assistance to mitigate overdose risk and to protect initiates from being taken advantage of by others. Participants described reluctance in engaging in this process. For some, access to resources (e.g., shared drugs or a monetary fee) was a motivator to initiate others.

Conclusion: In Tijuana, public injection and a lack of harm reduction services are perceived to fuel the incidence of IDU initiation and to incentivize PWID to assist in injection initiation. IDU

Corresponding Author: Dan Werb, PhD, Assistant Professor, Division of Infectious Diseases and Global Public Health, UC San Diego School of Medicine, 9500 Gilman Drive MC 0507, La Jolla CA 92093-0507, dwerb@ucsd.edu, Tel: 858-205-8262.
*affiliation while work was performed.

Disclosure of Interest
The authors report no conflict of interest.

prevention efforts should address structural factors driving PWID participation in IDU initiation while including PWID in their development and implementation.

Keywords

HIV prevention; HCV prevention; injection initiation assistance; North America; Mexico

Introduction

With 11 million persons who inject drugs (PWID) worldwide, addressing risk factors for injection drug use (IDU) initiation is an issue of critical public health importance (UNODC, 2018). Globally, PWID experience a burden of over 9 million disability-adjusted life years from opioid dependence (Degenhardt et al., 2013), as well as heightened risk of HIV and HCV transmission (Mathers et al., 2008; Nelson et al., 2011). Recently, North America has experienced an increasing incidence of opioid overdose (UNODC, 2018). In the United States, for example, opioid overdose is now the leading cause of accidental death among persons under the age of 50 (Cicero, T.J., Ellis, M.S., & Harney J., 2015; Mack, K.A., Jones, C.M., & Ballesteros, M.F., 2017) driven by the use of prescription and non-prescription opioids (CDC, 2017; Paulozzi, L.J., & Ryan, G.W., 2006).

Relatedly, there is a growing scientific consensus that PWID play a key role in the transition of others into IDU by exposing, socializing and often responding to requests from injection-naïve individuals to facilitate their IDU initiation events (Werb et al., 2016; Bluthenthal, R.N., & Kral, A.H., 2015; Vlahov, D. Fuller, C.M., Ompad, D.C., Galea, S., & Des Jarlais, D.C., 2004). This is of concern, given data suggesting that recent initiates (i.e., new onset PWID) are at high risk of progressing into regular injection within 1 year of initiation (O'Keefe, D., Horyniak, D., & Dietze, P., 2016), first overdose occurring within the first year after first heroin use (Guarino, H., Mateu-Gelabert, P., Teubl, J., & Goodbody, E., 2018) and a high risk of HIV and HCV infection during their first years of IDU (Garfein et al., 1996).

Tijuana, a Northwestern Mexican border city, is an under-resourced middle income setting with an IDU epidemic. It is situated on a major drug trafficking route supplying heroin, fentanyl, cocaine, marijuana and methamphetamines to U.S. markets (DEA, 2018; Goodman-Meza et al., 2018), which has also spurred local patterns of IDU. Tijuana's PWID population has grown rapidly partly as a result of increasing availability of street drugs due to a 'spill-over' effect along the Tijuana-California drug trafficking corridor stretching from the Andean region and into the United States (Bucardo et al., 2005). The most recent estimates suggest that approximately 6,000 PWID reside in Tijuana, with HIV and HCV prevalences of 7% and 96% respectively (Strathdee et al., 2012; Brower et al., 2006; Strathdee, S.A., & Magis-Rodriguez C., 2008; White et al., 2007).

Previous qualitative research has described a fragmented moral code and "moral ambivalence" among PWID with respect to providing injection initiation assistance to others. While PWID generally report unwillingness to assist in initiation events, repeated requests for help, seeking to reduce harm to the 'initiate', unintended initiation, assisting in exchange for money or drugs, and seeking to share or foster pleasure are all factors that may

cause an individual to contravene the moral code against injection initiation assistance provision (Guise et al., 2018; Kolla et al., 2015; Wenger, L. D., Lopez, A. M., Kral, A. H., & Bluthenthal, R. N., 2016; Rhodes et al., 2011; Simmons, J., Rajan, S., & McMahon, J.M., 2012). While the facilitation of injection initiation by PWID has been previously reported in Tijuana, this has not been a primary topic of qualitative study. For example, men who inject drugs with deportation experiences reported curiosity and pressure to inject among close friends and family who later provided injection initiation assistance in Tijuana (Robertson et al., 2012). Gender also appears to play a role in shaping pathways to injection initiation among couples (Simmons, J., Rajan, S., & McMahon, J.M., 2012; Martin, F.S., 2010; Powis, B, Griffiths, P., Gossop, M., & Strang, J., 2009; Bryant, J., & Treloar, C., 2007; Sherman, S.G., Smith, L., Laney, G., & Strathdee, S.A., 2002; Rhodes, T., & Quirk, A., 1998). In the context of Tijuana, a gendered process of initiation has been previously documented, including a man being initiated in a Tijuana prison and remorsefully initiating their female partner post-release (Syvertsen, J.L., Bazzi, A.R., & Mittal, M.L., 2017). In a quantitative study by our group, male PWIDs in Tijuana were more than twice as likely to have provided injection initiation assistance when compared to female PWIDs (Meyers et al. 2018). Nevertheless, the processes and socio-structural contexts shaping PWID involvement in providing injection initiation assistance remain understudied in Tijuana. Understanding this phenomenon is important for developing effective responses to prevent linked epidemics of IDU, overdose and disease transmission across the U.S.-Mexico border. Therefore, the present study aims to contribute to this understanding by examining pathways that lead PWID to engage in IDU practice-sharing and assist the injection initiation of injection-naïve individuals in Tijuana, Mexico.

Methods

Design and Study Setting

Preventing Injecting by Modifying Existing Responses (PRIMER) is a multi-cohort mixed-methods study investigating whether structural interventions to reduce the harms of IDU may have a secondary preventive impact on the risk that PWID initiate others into IDU (Werb et al. 2016, provides full methodology and rationale). PRIMER includes data from cohort studies of PWID in multiple settings, including Tijuana, Mexico. The present study employed a qualitative observational approach whereby the sampling frame was defined as a Tijuana-based cohort of PWID which provides data for the PRIMER study (i.e., *Proyecto El Cuete IV* [ECIV]; Robertson et al., 2014). Semi-structured interviews explored participants' experiences of providing injection initiation assistance to injection-naïve individuals as well as the social norms and contexts for assisting others in their first injection.

Sampling and recruitment

ECIV is a prospective cohort of PWID recruited between 2012 and 2014, with 6-month follow-up behavioural and biological assessments conducted in secure field offices. The PRIMER study was launched in Autumn 2014 and coincided with follow-up 7 in ECIV. ECIV participants were community-recruited, and eligibility was restricted to individuals ≥ 18 years old, who reported IDU within the month prior to ECIV study enrollment (Roberston et al., 2014). Within the ECIV sampling frame, we sought a purposive sample of

PWID who had assisted with IDU initiation and so could give insight to this process (Coyne, I.T., 1997). To be eligible for the present study, therefore, participants reported ever assisting in the initiation of others into IDU on the ECIV quantitative survey (i.e. reporting having "*ever helped someone inject who had never injected before*") and consented to participating in future studies. Eligible participants were contacted by ECIV outreach staff, by phone or field visits, and invited to participate in our qualitative study.

Data generation

We used an in-depth approach to qualitative interviews, seeking to draw upon participants' experiences to explore the context and pathways by which PWID provide injection initiation assistance. Interviews were conducted from June-September 2016 by MLM, AG and CR, who are social scientists with qualitative research experience in communities using drugs. All interviews were conducted in Spanish or English, based on participant preference; all interviews were audio recorded. Audio transcriptions were quality-checked by MLM & CR (both native Spanish speakers) before being translated into English (when necessary) and then double-checked by bilingual social scientists familiar with local substance use terminology. Interviews were conducted in the *Zona Norte* [Tijuana's downtown red light district] (Syvertsen, J.L., Bazzi, A.R., & Mittal, M.L., 2017), at the cohort study field office which is walking distance from IDU 'hot spots' and frequently used by study participants as a 'safe space', with long-term study staff and procedures familiar to the participants through repeated contact. A primary consideration in data collection was managing the stigma, shame, and guilt potentially attached to assisting in drug injecting, given that this has been reported in previous studies (Wenger, L. D., Lopez, A. M., Kral, A. H., & Bluthenthal, R. N., 2016; Small, W., Fast, D., Krusi, A., Wood, E., & Kerr, T., 2009). Our semi-structured interview guide was first constructed based on the conceptual framework to investigate injection initiation events facilitated by established injectors, which is described in full elsewhere (Werb et al., 2016). Questions focused on individual, micro-social, meso-social, and macro-structural level pathways to provide injection initiation assistance. The guide was later shaped by pilot interviews in San Diego (Guise et al., 2018) and by peer members of the ECIV team to ensure a culturally appropriate translation. Our interview guide included questions reflecting on participants' current life situation ("Was injecting others for the first time influenced in anyway by other things in your life?"), their experience of providing injection initiation assistance ("Can you talk me through the most recent experience of injecting someone else for their first time…") and the potential for preventive interventions for injection initiation ("Do you think someone's housing status (i.e., stable housing vs. unstable housing vs. homeless) might shape how often they inject others for the first time?"). We explored these questions whilst allowing participants to explore these issues on their own terms, and did not probe in-depth if either verbal or non-verbal cues suggested unwillingness. Interviews commonly lasted one hour, but varied from 40 to 90 minutes.

Analysis

Through abductive reasoning, we approached this analysis with existing theory and concepts of moral codes 'of the street' with a specific focus on codes and norms influencing decisions to provide injection initiation assistance (Ezzy, D., 2002; Burawoy, M., 1991; Anderson, E., 2000; Wenger, L. D., Lopez, A. M., Kral, A. H., & Bluthenthal, R. N., 2016; Guise et al.,

2018), while developing an analysis grounded in the specific context. During the process of data collection, we wrote memos and reflected on transcribed interviews as a team which informed ongoing interviews. Thematic saturation was achieved following 21 interviews. As data collection ended, four members of our team finalized a coding framework and, following reliability checks across the team, organized the data around these codes, which included accounts of providing injection initiation assistance, the acceptability of assisting, guilt and social networks. Six members of our team then explored themes that provided insight to core patterns in the data and developed charts using Microsoft Office to refine the emerging analysis.

Ethics considerations

The study was approved by the University of California San Diego Human Research Protections Program (FWA00004495) and the *Universidad Xochicalco, Facultad de Medicina, Campus Tijuana* Institutional Review Board (FWA00022665). All participants provided informed consent prior to in-depth interviews and received a $25 USD (~470 Mexican Pesos) incentive. All names used below are pseudonyms to preserve anonymity.

Results

All twenty-one qualitative participants (women=8, men=13) who reported ever providing injection initiation assistance had a median of initiating 2 (Interquartile Range [IQR]: 1-3) and a maximum of initiating 50 individuals into IDU. Fifteen (71%) participants reported initiating others into IDU in the past 6 months. Both ‘ever’ and ‘past 6 month’ initiates were most commonly an acquaintance or a friend, 15 (71%) and 13 (87%) respectively. Most participants (n=16; 76%) reported ever been in prison. Participants had a median age of 40 (IQR: 36-46) years old, and the majority (n=18; 86%) reported currently injecting heroin, of which 8 (44%) participants reported heroin injected in combination with methamphetamine at the time of the qualitative interview (Table 1).

We summarize qualitative findings in relation to PWID insights on providing injection initiation assistance and their implications for structural interventions. We identified major emergent themes surrounding unwritten codes, street-based injection, and a lack of harm reduction services, all of which influenced decisions around the provision of injection initiation assistance. Table 2 provides a summary of additional minor themes that emerged in qualitative findings, including pleasure seeking in IDU, linkage to methamphetamine use, and PWID perceptions of accidental initiation.

Providing injection initiation assistance to mitigate harms associated with first injection

Emergent themes included facilitating IDU initiation to prevent overdose among initiates. This was due to a perceived lack of harm reduction services in Tijuana to mitigate overdose risk among new PWID, as well as protecting injection-naïve individuals (i.e., potential initiates) from being taken advantage of by others. The fear and potential consequences of initiates overdosing made some PWID hesitant to provide injection initiation assistance:

> *“No well, the first time that... when I was taking the needle out, what they did was throw up everything they had in their stomach. They started vomiting, eh,*

> *everything…so sometimes I put it in their veins for them because I think, 'an overdose won't happen* [if I control the injection] *and I won't go to jail if I inject them* [because they won't die]*,' you understand? That's what I was afraid of, because a lot of people have been taken* [to jail] *for injecting another person when they overdose…Sometimes the police officers come here because they won't believe that it was* [the overdosed person's] *first-time using…"*
>
> –Carlos, 45 years old

Many participants also felt an obligation to assist because they had previous experience with reversing drug overdoses. For example, Martha, a 36-year-old woman, warned initiates of the heightened risk of overdose common to inexperienced injectors. In Tijuana, street access to naloxone—an opioid antagonist that reverses opioid overdose—is very low due to limited funding for harm reduction services (Scholl, E., & Nicholson, J., 2010) and because Mexican ambulances are not required to carry a supply (DOF, 2014). In this context, Martha described overcoming her reluctance to provide injection initiation assistance given the relatively few options that individuals have to avoid overdose. "*It makes me feel guilty if they die, if they overdose. If I help someone get fixed, I, at least me, if* [the initiate] *starts to fall asleep on me or overdose, I am going to find a way to help him so that he doesn't die on me, you get me?*" She further articulated the belief that those who had themselves experienced overdose would be better equipped to help initiates:

> *"I think that all of us who use heroin, or have used it, have had an overdose at some point, and well, thanks to God or something like that… well we are still alive. And then you start gaining experience of how to help people who are going through that. I have seen* [people use] *very caveman-like ways to help others* […] *just like that I have helped another person, injected them with salt and water like that, but I have also seen how they revive them with beatings, and—come on, it's really caveman-like".*
>
> –Martha, 36 years old

Given the lack of formal overdose prevention education or naloxone access in Tijuana, Martha understood why some people resorted to 'caveman-like' ways (i.e., beatings) to reverse overdose, which Martha suggested commonly occurred among new injection initiates. She was also explicit in her belief that not all PWID would go out of their way to help others. In fact, she worried about those in the minority who would allow initiates to 'nod off' in order to steal from them. "*That's what happened one time, right there nearby, just to steal 800 dollars from a guy.*" However, she also noted her own ambivalence about how she might react in similar circumstances: "*I don't know, if I were there, I wouldn't have allowed it.*"

Initiatior reluctance and 'unintentional initiation'

Some participants referred to assisting people into IDU intiation without knowing it was their first time. According to them, some initiates appear to feel it necessary to resort to lying in order to hide their injection-naïve status in order to assuage initiator concerns about transgressing moral codes:

> *"Why* [lie about never injecting before]*? I don't know…because almost nobody here wanted to do it if it is for their first time because of the risk that you are going to overdose. I say it's because of that…We all have a different mentality, and many people have a lot of evil. I have seen it. Maybe I have noticed it in this circle of vice. I mean like... they are more evil because of the same addiction, the necessity for the drug. They lie, we lie, to obtain something from him, to fix ourselves and... that is why people lie."*
>
> –Sofía, 38 years old

Participants described their own reluctance in engaging in this initiation process and how they were often responding to requests for assistance. Gustavo was particularly cautious when initiating others, as a result of being wary that potential initiates were actually undercover police looking to make an arrest: "*I talk with the dude, you get me? Before giving it [first injection] to him, that way I avoid a problem; because many times it is police, many times they are uniformed, sometimes they are* [dressed like] *civilians—I mean, I try to prevent* [arrest]*, you get me? I try to be on alert with those dudes* [undercover police]*, you get me?*" Gustavo, trying to avoid a 'set up' or arrest, had to ascertain that the initiate was not an undercover police officer or an informant. These type of fears appeared to amplify people's reluctance to provide injection initiation assistance to unknown injection-naïve individuals.

Other participants' reluctance to initiate others was rooted in an 'unwritten law', a moral code to prevent the spread of IDU. Lucía, a 36 year old woman who was born and raised in the gang territories of the U.S. before moving to Tijuana with her deported partner, reflected on these unwritten laws in relation to her own gang culture. Her U.S.-based gang was critical of members who injected drugs, and would condemn anyone providing injection initiation assistance.

> *"Well I mean, not, not, not, the code of our, our conduct and whatever of the* [U.S.-based gang]*... you ain't supposed to do that, you ain't supposed to* [initiate others]*, to hit* [inject] *somebody like, you know what I mean. We're not even supposed to be slamming, but if you do, you keep your… you don't wash your underwear on the street corner* […] *keep that shit* [IDU] *in your own house."*
>
> –Lucía, 36 year old

For many, unwillingness to initiate others was due to guilt and shame associated with previous initiation experiences. Reluctance to provide initiation assistance was closely linked with the stigma associated with initiating others:

> *"Why do I feel bad? Well because I initiated her to the addiction. Because from that moment on, it was no—it was no longer a theory but rather a fact that she was given a dose and she liked it. And then every time, almost every day she comes to the door. 'No, I told you that...before I gave it to you, I told you that this would happen; that's what's up, and I felt bad because I am destroying your life in the syringe that I give you,' because sooner or later they are going to become aware that it's a different kind of drug* [dependence]*. Then they are going to want to blame me. They are going to want to fuck me up…Right?"*

–Edgar, 55 years old

For some, access to resources (e.g., shared drugs or a fee) was a motivator to aid initiates. Even for those who normally refuse others, a dire financial situation and symptoms of opioid withdrawal might combine to reduce the capacity of individuals to refuse to initiate others:

> *"It's 'cause... so like I'm telling you, you come to me with money and I, I find myself in a situation where I don't have money and in withdrawal; hey, I am going to do it to you. But if I have money and I have the bag* [of drugs] *and I also have more information to prevent the dude from things* [e.g., starting to inject]*, I try to avoid it* [providing assistance in injection initiation] *for them. But in a bad situation, I don't think so."*

– Gustavo, 30 years old

Exposure to street-based injection perceived to drive curiosity

Participants reported a commonly-held belief that Tijuana's street-based drug scenes increased curiosity about IDU among injection-naïve people, particularly those seeking a more pleasurable way to experience drug use (Table 2). Therefore, the transition into IDU was seen by the majority as 'inevitable' among those exposed to this environment. Lucía believed that "*the less they* [injection-naïve individuals] *are around injecting, the more unlikely a person is to* [start to] *inject.*" Having lived in the U.S. prior to her relocation to Tijuana, she was shocked to see the level of street-based injecting in the city: "*like, right here, I remember when I first came down here, walking down the street in broad daylight, like around this time of day* [10 a.m.]*, and you see that fool just crouched down between two cars, just like, in broad daylight, while people walked by!*"

Street-based injection exposure, according to participants, engendered an understanding of the inevitability of IDU. Sofía, in particular, nevertheless expressed tremendous guilt for having initiated others despite her belief that she had helped reduce the harms commonly associated with IDU initiation:

> *'Well, I was telling my brother, like he is the one with whom I hang out with the most, I told him, 'I feel bad because I injected them and maybe I am getting them addicted, I am making them* [have]*...a more miserable life with drugs and everything.' And my brother is the one who gives me breathe, he tells me, 'no, no, even if you did not* [help them] *do it, another person was going to do it.' But believe me that you do feel it in your conscience; I personally, yes, yes on two occasions I have felt the lowest, for doing that. You get me? With people that perhaps, that maybe I could have said, 'you know what? Don't do it because I did it and look, hmm, well I already got addicted, it has not really helped me forget everything, and all of that.' I could have told them that. Why didn't I do it? And also at the same time I say, well, if I hadn't have done it, another person would have done it, and maybe* [done it] *worse.'*

–Sofía, 38 years old

Discussion

We sought to examine the pathways that lead PWID to provide injection initiation assistance to injection-naïve drug users in Tijuana, Mexico, a limited-resource setting experiencing disproportionate IDU-related harms. Building upon previously reported patterns of PWID provision of injection initiation assistance in other global settings (Rahimini-Movaghar et al., 2015; Bluthenthal et al., 2014; Rhodes et al., 2011; Harocopos et al., 2009; Small, W., Fast, D., Krusi, A., Wood, E., & Kerr, T., 2009; Kermode et al., 2007; Bryant, J., & Treleor C., 2008; Crofts, N., Louie, R., Rosenthal, D., & Jolley, D., 1996), we found that PWID's reluctance to initiate others was linked to stigma and shame (Wenger, L. D., Lopez, A. M., Kral, A. H., & Bluthenthal, R. N., 2016; Small, W., Fast, D., Krusi, A., Wood, E., & Kerr, T., 2009), unintended initiation (Guise et al., 2018; Rhodes et al., 2011), and to a perception of the inevitability of transitions into IDU due to increased curiosity among injection-naïve individuals exposed to street-based drug scenes (Guise, A., Horyniak, D., Melo, J., McNeil, R., & Werb, D., 2017; Kolla et al., 2015; Fast, D., Small, W., Krüsi, A., Wood, E., & Kerr, T., 2010). However, we note that unlike evidence from other studies, we did not find acute gendered differences in the context for injection initiation assistance provision in this qualitative sample (Meyers et al., 2018; Syvertsen, J.L., Bazzi A.R., & Mittal, M.L., 2017; Simmons, J., Rajan, S., & McMahon, J.M., 2012; Martin, F.S., 2010; Powis, B, Griffiths, P., Gossop, M., & Strang, J., 2009; Bryant, J., & Treloar, C., 2007; Sherman, S.G., Smith, L., Laney, G., & Strathdee, S.A., 2002; Rhodes, T., & Quirk, A., 1998).

We expressly explored efforts by participants to mitigate the harm associated with IDU initiation (Kolla et al., 2015). While the period of IDU transition is associated with overdose and infectious disease transmission risk (Guarino, H., Mateu-Gelabert, P., Teubl, J., & Goodbody, E., 2018; Evans et al., 2012; Vlahov et al., 2008; Miller, C. L., Kerr, T., Strathdee, S. A., Li, K., & Wood, E., 2007; Fuller et al., 2005; Garfein et al., 1996), an overwhelming concern expressed by participants for initiates' safety related to overdose. This is consistent with the lack of support for harm reduction programs including very limited street availability of naloxone in Tijuana (DOF, 2014; Verdugo et al., 2013; Scholl, E., & Nicholson, J., 2010; Syvertsen, J.L., Bazzi A.R., & Mittal, M.L., 2017). These structural impediments to risk avoidance are manifest among our Tijuana cohort, among whom more than half of participants report having ever experienced at least one non-fatal overdose (Meacham et al., 2017); the high prevalence of overdose in turn contributed to the moral obligation that some participants expressed to mitigate initiates' overdose risk. Indeed, this moral obligation was a key reported justification for overcoming their reluctance to provide injection initiation assistance.

Our study further develops the understanding of stigma and shame as it relates to an 'unwritten law' or moral code which prevents PWID from sharing IDU practices with injection-naïve individuals. These findings add to research in other settings (Guise et al., 2018; Wenger, L. D., Lopez, A. M., Kral, A. H., & Bluthenthal, R. N., 2016; Small, W., Fast, D., Krusi, A., Wood, E., & Kerr, T., 2009), which have identified a similar code that appears to be more prevalent among PWID with longer injection careers, who seek to to avoid 'destroying lives' by assisting others in their first injection. Despite the ubiquity of this code, it was often contravened by participants to mitigate withdrawal in exchange for drugs as has

been reported elsewhere (Guise et al., 2018; Kolla et al., 2015; Goldsamt et al., 2010), and, as noted above, for harm reduction purposes.

Constrained by their environment, we found that some PWID felt they could not avoid providing injection initiation assistance. This process highlighted PWID's structural vulnerability to assist others in their first injection, which in turn increased individual guilt and stigma. PWID have been previously described as the 'gatekeepers of drug injection practices' (Simmons, J., Rajan, S., & McMahon, J.M., 2012). Our data suggests that initiators' failure to 'hold the gate' by breaking this unwritten law (Harocopos et al., 2009) may be the primary reason for the guilt and shame they experience around initiating others. It is not the act of injecting others for the first time in isolation, but the chances of getting someone 'hooked' on injection from which the stigma arises. Like Simmonds & Coomber (2009), the guilt and shame experienced by participants challenge widely-held notions about PWID having little concern for others' safety. The consequences of IDU, including increased risk of being targeted by arbitrary policing practices in this setting (Wood et al., 2017; Pinedo, M., Burgos, J. L., Ojeda, A. V., FitzGerald, D., & Ojeda, V. D., 2015; Beletsky et al., 2013), were present when participants responded to requests for assistance. These personal struggles increased the reluctance of PWID to provide injection initiation assistance. However, the structural violence of everyday life ultimately drove participants to provide injection initiation assistance (Rhodes et al., 2011), with the burden of stigma appearing to be greater for participants aware of the initiate's injection-naïve status.

These findings have implications for public health efforts seeking to prevent PWID provision of injection initiation assistance through structural and peer-led interventions. The moral obligation to ensure initiates' safety, linked with a perceived inevitability of IDU initiation due to street-drug scene exposure, played a key role in the decisions participants made to help those requesting assistance. Evidence of PWID driven by a moral obligation to help others in this setting could be channelled into culturally appropriate 'break the cycle' interventions involving peer IDU harm reduction education and IDU exposure reduction (Gray, R., 2008; Hunt, N., Stillwell, G., Taylor, C., & Griffiths, P., 1998). The stigma and shame surrounding the provision of injection initiation assistance could also be addressed in this resource-limited setting by user-driven safe assisted-injection interventions (Small et al., 2012). In the meantime, institutionalizing widespread harm reduction information in partnership with local NGOs could create a source of well-known and trusted advice that can be available for PWID to which they can refer injection-naïve individuals instead of assisting them in injection initiation.

Our findings suggest that in Tijuana, participants' perception of IDU inevitability was linked to street-based drug scene exposure, which is in turn shaped by local drug enforcement practices. We note that previous research from our group found that street-based drug injection in multiple North American settings has been shown to be associated with an increased likelihood that PWID provide injection initiation assistance (Vashishtha et al., 2017). Current structural interventions to reducing street-based injecting include increasing access to opioid agonist treatment (OAT; i.e., methadone), as well as medically-supervised consumption facilities (Wood et al., 2004; Potier et al., 2014; Kinnard et al., 2014; Semaan et al., 2011; Bravo et al., 2009; DeBeck et al., 2008; Wood et al., 2006). In Mexico, public

support for OAT expansion has been increasing among public health and local NGO groups due to their effectiveness in preventing drug-related harms including HIV and HCV risk transmission and overdose risk among PWID (Romero Mendoza et al., 2016; Scholl E., & Nicholson, J., 2010). Notably, previous research from our group has also shown that a history of enrollment in OAT is associated with a reduced risk that PWID provide injection initiation assistance to others (Mittal et al., 2017; Mittal et al., 2019). However, policymakers seeking to enhance OAT provision and implement medically-supervised consumption facilities in Tijuana should include PWID in their planning and implementation in order to address the many barriers and social pressures. These should include addressing persistent requests for initiation described in this study, which may influence the effectiveness and breadth of impact of these services. Such an approach may be effective in addressing the gaps in public health and local policies to reduce the ongoing expansion of an IDU-disease-overdose syndemic in this region (Beletsky et al., 2018; Goodman-Meza et al., 2018).

Contrary to previous reports (Syvertsen, J.L., Bazzi A.R., & Mittal, M.L., 2017), our study did not find evidence of recent provision of injection initiation assistance in Tijuana prisons, despite most participants reporting a history of incarceration. This may be due in part to the restructuring of local prisons which appears to have significantly reduced its free-market drug economy, which had led to increased prevalence of drug injecting and syringe sharing among inmates (Price, J.A., 1973; Pollini et al., 2009).

We present data from a qualitative sample from Tijuana, aiming to provide insight into the localized phenomenon of injection initiation in a context marked by a disproportionate prevalence of drug injecting and related harms; as such, this study has several limitations typical of research of this kind. First, we relied on reports of participant's own initiation assistance practices, which is a highly stigmatized behaviour (Wenger, L. D., Lopez, A. M., Kral, A. H., & Bluthenthal, R. N., 2016; Small, W., Fast, D., Krusi, A., Wood, E., & Kerr, T., 2009) and likely resulted in under-reporting of this behaviour (Guise et al., 2018). However, we purposively recruited participants to be representative of a broad range of PWID to increase the diversity of accounts specific to this context. We also note that the social desirability bias in our sample could have been lessened because participants previously admitted to providing initiation assistance in the quantitative survey delivered by the cohort study staff who had developed rapport over time, but were interviewed by other people, similar to other studies (Kolla et al., 2015). Given that discussion of IDU and risk is limited and can be subject to obfuscation by potential initiates during the provision of injection initiation assistance (Guise et al., 2018), our study did not explore current substance use or one's decision to initiate IDU, including methamphetamine use, among persons seeking initiation assistance. Therefore we were unable to assess the individual's tolerance and how this relates to overdose risk in these peer interactions.

Conclusion

The unintended consequences of IDU-related stigma, overdose and local drug enforcement practices are paradoxically fuelling the incidence of IDU by increasing the exposure of injection-naïve individuals to PWID who engage in street-based injecting, as well as the

latter group's willingness to initiate others into drug injecting. This study highlights diverse pathways by which PWID report providing injection initiation assistance. Structural interventions seeking to prevent IDU initiation should incorporate the experienced voices of PWID in their development and implementation.

Acknowledgments

PRIMER – ECIV participants and staff, Jazmine Cuevas-Mota, Zaira Reynoso, Amen Ben Hamida, Stephanie Meyers, and Jason Melo.

Funding

This work was supported by the National Institute of Drug Abuse (NIDA) Avenir Award DP2-DA040256-01 (PI: Werb) and NIDA R01DA019829 (PI: Strathdee). MLM is supported by the Fogarty International Center of the NIH Award Numbers D43TW008633 and R25TW009343, UC San Diego Center for AIDS Research NIAID P30AI36214 and NIDA grants T32DA023356 and 3R01DA040648-02S1. CR was supported by a UC-MEXUS/CONACyT scholarship grant number 209407/313533, the UC MEXUS Dissertation Grant numbers DI 15-42 and a Postdoctoral Fellowship from the Canadian Institutes of Health Research (CIHR). PD is supported by NIDA R01DA040648. DV is supported by NIH training grant 1TL1TR001443. DW is also supported by a New Investigator Award from the CIHR.

References

Anderson E, 2000 Code of the street: Decency, violence, and the moral life of the inner city. WW Norton & Company.

Beletsky L, Baker P, Arredondo J, Emuka A, Goodman-Meza D, Medina-Mora ME, ... & Magis-Rodriguez C (2018). The global health and equity imperative for safe consumption facilities.The Lancet,392(10147), 553–554.

Beletsky L, Lozada R, Gaines T, Abramovitz D, Staines H, Vera A, ... & Strathdee SA (2013). Syringe confiscation as an HIV risk factor: the public health implications of arbitrary policing in Tijuana and Ciudad Juarez, Mexico. Journal of Urban Health, 90(2), 284–298. [PubMed: 22806453]

Bluthenthal RN, & Kral AH (2015). Next steps in research on injection initiation incidence and prevention. Addiction, 110(8), 1258–1259. [PubMed: 26173157]

Bluthenthal RN, Wenger L, Chu D, Quinn B, Thing J, & Kral AH (2014). Factors associated with initiating someone into illicit drug injection.Drug and Alcohol Dependence, 144, 186–192. [PubMed: 25282308]

Bravo MJ, Royuela L, De la Fuente L, Brugal MT, Barrio G, & Domingo-Salvany A (2009). Use of supervised injection facilities and injection risk behaviours among young drug injectors. Addiction, 104(4), 614–619. [PubMed: 19215603]

Brouwer KC, Strathdee SA, Magis-Rodríguez C, Bravo-García E, Gayet C, Patterson TL, ... & Hogg RS. (2006). Estimated numbers of men and women infected with HIV/AIDS in Tijuana, Mexico. Journal of Urban Health, 83(2), 299–307. [PubMed: 16736378]

Bryant J, & Treloar C (2007). The gendered context of initiation to injecting drug use: evidence for women as active initiates. Drug and Alcohol Review, 26(3), 287–293. [PubMed: 17454018]

Bryant J, & Treloar C (2008). Initiators: An examination of young injecting drug users who initiate others to injecting. AIDS and Behavior, 12(6), 885–890. [PubMed: 18097744]

Bucardo J, Brouwer KC, Magis-Rodríguez C, Ramos R, Fraga M, Perez SG, ... & Strathdee SA (2005). Historical trends in the production and consumption of illicit drugs in Mexico: implications for the prevention of blood borne infections. Drug and Alcohol Dependence, 79(3), 281–293. [PubMed: 16102372]

Burawoy M (1991). Ethnography unbound: Power and resistance in the modern metropolis. Univ of California Press.

Centers for Disease Control (CDC). 2017). Fentanyl-fueled overdoses. JAMA, 317, 2055.

Cicero TJ, Ellis MS, & Harney J (2015). Shifting patterns of prescription opioid and heroin abuse in the United States.New England Journal of Medicine, 373(18), 1789–1790.

Coyne IT (1997). Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries?Journal of Advanced Nursing, 26(3), 623–630. [PubMed: 9378886]

Crofts N, Louie R, Rosenthal D, & Jolley D (1996). The first hit: circumstances surrounding initiation into injecting. Addiction, 91(8), 1187–1196. [PubMed: 8828246]

DeBeck K, Wood E, Zhang R, Tyndall M, Montaner J, & Kerr T (2008). Police and public health partnerships: Evidence from the evaluation of Vancouver's supervised injection facility. Substance Abuse Treatment, Prevention, and Policy, 3(1), 11.

Degenhardt L, Whiteford HA, Ferrari AJ, Baxter AJ, Charlson FJ, Hall WD, ... & Flaxman A (2013). Global burden of disease attributable to illicit drug use and dependence: findings from the Global Burden of Disease Study 2010. The Lancet,382(9904), 1564–1574.

Diario Oficial de la Federación (DOF). (2014). Norma Oficial Mexicana NOM-034-SSA3–2013, Regulación de los servicios de salud Atención médica prehospitalaria. Mexico DF: Secretaría de Salud.

Drug Enforcement Administration (DEA). (2018). 2018 National Drug Threat Assessment Summary (DEA-DCT-DIR-032–18). Washington: U.S. Department of Justice publication.

Evans JL, Tsui JI, Hahn JA, Davidson PJ, Lum PJ, & Page K (2012). Mortality among young injection drug users in San Francisco: a 10-year follow-up of the UFO study. American Journal of Epidemiology, 175(4), 302–308. [PubMed: 22227793]

Ezzy D (2002). Qualitative Analysis: Practice and Innovation. London: Routledge.

Fast D, Small W, Krüsi A, Wood E, & Kerr T (2010). 'I guess my own fancy screwed me over': transitions in drug use and the context of choice among young people entrenched in an open drug scene. BMC Public Health, 10(1), 126. [PubMed: 20222984]

Fuller CM, Borrell LN, Latkin CA, Galea S, Ompad DC, Strathdee SA, & Vlahov D (2005). Effects of race, neighborhood, and social network on age at initiation of injection drug use. American Journal of Public Health, 95(4), 689–695. [PubMed: 15798131]

Garfein RS, Vlahov D, Galai N, Doherty MC, & Nelson KE (1996). Viral infections in short-term injection drug users: the prevalence of the hepatitis C, hepatitis B, human immunodeficiency, and human T-lymphotropic viruses. American Journal of Public Health, 86(5), 655–661. [PubMed: 8629715]

Goldsamt LA, Harocopos A, Kobrak P, Jost JJ, & Clatts MC (2010). Circumstances, pedagogy and rationales for injection initiation among new drug injectors.Journal of Community Health, 35(3), 258–267. [PubMed: 20127155]

Goodman-Meza D, Medina-Mora ME, Magis-Rodríguez C, Landovitz RJ, Shoptaw S, & Werb D (2018). Where Is the Opioid Use Epidemic in Mexico? A Cautionary Tale for Policymakers South of the US–Mexico Border. American journal of public health, (0), e1–e10.

Gray R (2008). Preventing IDU initiation among drug-curious youth: an attempt to measurably reduce IDU initiation among youth in Central Asia. In International Harm Reduction Association's 19th Conference, Barcelona, Spain, Available at: https://www.hri.global/files/2010/05/03/2008_Wednesday_Concurrent_Routes_Gray.pdf (retrieved on 13.05.17).

Guarino H, Mateu-Gelabert P, Teubl J, & Goodbody E (2018). Young adults' opioid use trajectories: From nonmedical prescription opioid use to heroin, drug injection, drug treatment and overdose. Addictive Behaviors, 86.

Guise A, Melo J, Mittal ML, Rafful C, Cuevas-Mota J, Davidson P, ... & Werb D (2018). A fragmented code: The moral and structural context for providing assistance with injection drug use initiation in San Diego, USA. International Journal of Drug Policy, 55, 51–60. [PubMed: 29524733]

Guise A, Horyniak D, Melo J, McNeil R, & Werb D (2017). The experience of initiating injection drug use and its social context: a qualitative systematic review and thematic synthesis. Addiction, 112(12), 2098–2111. [PubMed: 28734128]

Harocopos A, Goldsamt LA, Kobrak P, Jost JJ, & Clatts MC (2009). New injectors and the social context of injection initiation.International Journal of Drug Policy, 20(4), 317–323. [PubMed: 18790623]

Hunt N, Stillwell G, Taylor C, & Griffiths P (1998). Evaluation of a brief intervention to prevent initiation into injecting. Drugs: Education, Prevention and Policy, 5(2), 185–194.

Kermode M, Longleng V, Singh BC, Hocking J, Langkham B, & Crofts N (2007). My first time: initiation into injecting drug use in Manipur and Nagaland, north-east India. Harm Reduction Journal,4(1), 19. [PubMed: 18053266]

Kinnard EN, Howe CJ, Kerr T, Hass VS, & Marshall BD (2014). Self-reported changes in drug use behaviors and syringe disposal methods following the opening of a supervised injecting facility in Copenhagen, Denmark. Harm reduction journal, 11(1), 29. [PubMed: 25352296]

Kolla G, Strike C, Roy É, Altenberg J, Balian R, Silver R, & Hunt N (2015). Initiation stories: An examination of the narratives of people who assist with a first injection. Substance Use & Misuse, 50(13), 1619–1627. [PubMed: 26595279]

Mack KA, Jones CM, & Ballesteros MF (2017). Illicit drug use, illicit drug use disorders, and drug overdose deaths in metropolitan and nonmetropolitan areas—United States. American Journal of Transplantation, 17(12), 3241–3252. [PubMed: 29145698]

Mathers BM, Degenhardt L, Phillips B, Wiessing L, Hickman M, Strathdee SA, … & Mattick RP. (2008). Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. The Lancet, 372(9651), 1733–1745.

Martin FS (2010). Becoming vulnerable: Young women's accounts of initiation to injecting drug use. Addiction Research & Theory, 18(5), 511–527.

Meacham MC, Roesch SC, Strathdee SA, Lindsay S, Gonzalez-Zuniga P, & Gaines TL (2017). Latent classes of polydrug and polyroute use and associations with human immunodeficiency virus risk behaviours and overdose among people who inject drugs in Tijuana, Baja California, Mexico. Drug and Alcohol Review, 37(1), 128–136. [PubMed: 28337798]

Meyers SA, Scheim A, Jain S, Sun X, Milloy MJ, DeBeck K, … Werb. (2018). Gender differences in the provision of injection initiation assistance: a comparison of three North American settings. Harm Reduction Journal, 15, 59. [PubMed: 30514384]

Miller CL, Kerr T, Strathdee SA, Li K, & Wood E (2007). Factors associated with premature mortality among young injection drug users in Vancouver.Harm Reduction Journal,4(1), 1. [PubMed: 17201933]

Mittal ML, Vashishtha D, Sun S, Jain S, Cuevas-Mota J, Garfein RS, Strathdee SA, Werb D (2017). History of medication-assisted treatment and its association with initiating others into injection drug use in San Diego, CA. Substance Abuse Treatment, Prevention, and Policy. Subst Abuse Treat Prev Policy, 12(1), 42. [PubMed: 28974239]

Mittal ML, Jain S, Sun S, DeBeck K, Milloy MJ, Hayashi K, Hadland SE, Werb D (2019). Opioid agonist treatment and the process of injection drug use initiation. Drug and Alcohol Dependence, 197, 354–60. [PubMed: 30922483]

Nelson PK, Mathers BM, Cowie B, Hagan H, Des Jarlais D, Horyniak D, & Degenhardt L (2011). Global epidemiology of hepatitis B and hepatitis C in people who inject drugs: results of systematic reviews. The Lancet, 378(9791), 571–583.

O'Keefe D, Horyniak D, & Dietze P (2016). From initiating injecting drug use to regular injecting: Retrospective survival analysis of injecting progression within a sample of people who inject drugs regularly. Drug and Alcohol Dependence, 158, 177–180. [PubMed: 26652894]

Paulozzi LJ, & Ryan GW (2006). Opioid analgesics and rates of fatal drug poisoning in the United States. American Journal of Preventive Medicine, 31(6), 506–511. [PubMed: 17169712]

Pinedo M, Burgos JL, Ojeda AV, FitzGerald D, & Ojeda VD (2015). The role of visual markers in police victimization among structurally vulnerable persons in Tijuana, Mexico. International Journal of Drug Policy, 26(5), 501–508. [PubMed: 25281235]

Pollini RA, Alvelais J, Gallardo M, Vera A, Lozada R, Magis-Rodriquez C, & Strathdee SA (2009). The harm inside: injection during incarceration among male injection drug users in Tijuana, Mexico. Drug and Alcohol Dependence, 103(1), 52–58. [PubMed: 19386448]

Potier C, Laprévote V, Dubois-Arber F, Cottencin O, & Rolland B (2014). Supervised injection services: what has been demonstrated? A systematic literature review.Drug and Alcohol Dependence, 145, 48–68. [PubMed: 25456324]

Powis B, Griffiths P, Gossop M, & Strang J (1996). The differences between male and female drug users: community samples of heroin and cocaine users compared. Substance Use & Misuse, 31(5), 529–543. [PubMed: 8777737]

Price JA (1973). Private enterprise in a prison: The free market economy of La Mesa Penitenciaria. NPPA Journal, 19(2), 218–227.

Rahimi-Movaghar A, Amin-Esmaeili M, Shadloo B, Noroozi A, & Malekinejad M (2015). Transition to injecting drug use in Iran: A systematic review of qualitative and quantitative evidence. International Journal of Drug Policy, 26(9), 808–819. [PubMed: 26210009]

Rhodes T, Wagner K, Strathdee SA, Shannon K, Davidson P, & Bourgois P (2012). Structural violence and structural vulnerability within the risk environment: theoretical and methodological perspectives for a social epidemiology of HIV risk among injection drug users and sex workers In Rethinking Social Epidemiology (pp. 205–230). Springer, Dordrecht.

Rhodes T, Bivol S, Scutelniciuc O, Hunt N, Bernays S, & Busza J (2011). Narrating the social relations of initiating injecting drug use: Transitions in self and society. International Journal of Drug Policy, 22(6), 445–454. [PubMed: 21903372]

Rhodes T, & Quirk A (1998). Drug users' sexual relationships and the social organization of risk: the sexual relationship as a site of risk management.Social Science & Medicine, 46(2), 157–169. [PubMed: 9447640]

Robertson AM, Garfein RS, Wagner KD, Mehta SR, Magis-Rodriguez C, Cuevas-Mota J, … & Strathdee SA (2014). Evaluating the impact of Mexico's drug policy reforms on people who inject drugs in Tijuana, BC, Mexico, and San Diego, CA, United States: a binational mixed methods research agenda. Harm Reduction Journal, 11(1), 4. [PubMed: 24520885]

Robertson AM, Lozada R, Pollini RA, Rangel G, & Ojeda VD (2012). Correlates and contexts of US injection drug initiation among undocumented Mexican migrant men who were deported from the United States. AIDS and Behavior, 16(6), 1670–1680. [PubMed: 22246511]

Romero Mendoza M, Medina-Mora ME, González H, Vásquez J, Armas G, Magis C (2016). Guiía para el uso de metadona en usuarios adultos con VIH dependientes de la heroiína intravenosa [Guide for methadone use in adult injection drug users who are living with HIV and intravenous heroin dependent]. México DF: Instituto Nacional de Psiquiatría, Centro Nacional de Prevención y Control del VIH/SIDA, and Secretaria de Salud.

Scholl E, & Nicholson J (2010). HIV prevention on the US-Mexico border. Addressing the needs of most-at-risk populations. Arlington: AIDS Support and Technical Assistance Resources (AIDSTAR-One) publication.

Semaan S, Fleming P, Worrell C, Stolp H, Baack B, & Miller M (2011). Potential role of safer injection facilities in reducing HIV and hepatitis C infections and overdose mortality in the United States.Drug and Alcohol Dependence, 118(2), 100–110. [PubMed: 21515001]

Sherman SG, Smith L, Laney G, & Strathdee SA (2002). Social influences on the transition to injection drug use among young heroin sniffers: A qualitative analysis. International Journal of Drug Policy, 13(2), 113–120.

Simmonds L, & Coomber R (2009). Injecting drug users: A stigmatised and stigmatizing population. International Journal of Drug Policy, 20(2), 121–130. [PubMed: 17981451]

Simmons J, Rajan S, & McMahon JM (2012). Retrospective accounts of injection initiation in intimate partnerships. International Journal of Drug Policy, 23(4), 303–311. [PubMed: 22398215]

Small W, Wood E, Tobin D, Rikley J, Lapushinsky D, & Kerr T (2012). The Injection Support Team: a peer-driven program to address unsafe injecting in a Canadian setting.Substance Use & Misuse, 47(5), 491–501. [PubMed: 22428817]

Small W, Fast D, Krusi A, Wood E, & Kerr T (2009). Social influences upon injection initiation among street-involved youth in Vancouver, Canada: a qualitative study.Substance Abuse Treatment, Prevention, and Policy, 4(1), 8.

Strathdee SA, Magis-Rodriguez C, Mays VM, Jimenez R, & Patterson TL (2012). The emerging HIV epidemic on the Mexico-US border: an international case study characterizing the role of epidemiology in surveillance and response. Annals of Epidemiology, 22(6), 426–438. [PubMed: 22626001]

Strathdee SA, & Magis-Rodriguez C (2008). Mexico's evolving HIV epidemic.JAMA,300(5), 571–573. [PubMed: 18677029]

Syvertsen JL, Bazzi AR, & Mittal ML (2017). Hope Amidst Horror: Documenting The Effects of The "War On Drugs" Among Female Sex Workers and Their Intimate Partners in Tijuana, Mexico. Medical Anthropology, 1–18 [PubMed: 27015145]

United Nations Office of Drugs and Crime (UNODC). (2018). World Drug Report 2018 (Sales No. E. 18.XI.9). Vienna: United Nations publication.

Verdugo S, Gaxiola H, Wagner K, Valles A, Davidson P, & Strathdee S (2013). Characteristics of overdose cases in Tijuana, Mexico: New approaches for identifying drug users at risk for HIV. In Paper presented at the Society for Prevention Research (SPR) Conference.

Vlahov D, Wang C, Ompad D, Fuller CM, Caceres W, Ouellet L, ... & Garfein RS (2008). Mortality risk among recent-onset injection drug users in five US cities. Substance Use & Misuse, 43(3–4), 413–428. [PubMed: 18365941]

Vlahov D, Fuller CM, Ompad DC, Galea S, & Des Jarlais DC (2004). Updating the infection risk reduction hierarchy: preventing transition into injection. Journal of Urban Health, 81(1), 14–19. [PubMed: 15047779]

Wenger LD, Lopez AM, Kral AH, & Bluthenthal RN (2016). Moral ambivalence and the decision to initiate others into injection drug use: A qualitative study in two California cities. International Journal of Drug Policy, 37, 42–51. [PubMed: 27572714]

Werb D, Garfein R, Kerr T, Davidson P, Roux P, Jauffret-Roustide M, ... & Strathdee SA (2016). A socio-structural approach to preventing injection drug use initiation: rationale for the PRIMER study. Harm Reduction Journal, 13(1), 25. [PubMed: 27629248]

White EF, Garfein RS, Brouwer KC, Lozada R, Ramos R, Firestone-Cruz M, ... & Strathdee SA (2007). Prevalence of hepatitis C virus and HIV infection among injection drug users in two Mexican cities bordering the US. Salud Pública de México, 49(3), 165–172. [PubMed: 17589770]

Wood E, Tyndall MW, Zhang R, Stoltz JA, Lai C, Montaner JS, & Kerr T (2006). Attendance at supervised injecting facilities and use of detoxification services. New England Journal of Medicine, 354(23), 2512–2514. [PubMed: 16760459]

Wood E, Kerr T, Small W, Li K, Marsh DC, Montaner JS, & Tyndall MW (2004). Changes in public order after the opening of a medically supervised safer injecting facility for illicit injection drug users. Canadian Medical Association Journal, 171(7), 731–734. [PubMed: 15451834]

Wood EF, Werb D, Beletsky L, Rangel G, Mota JC, Garfein RS, ... & Wagner KD (2017). Differential experiences of Mexican policing by people who inject drugs residing in Tijuana and San Diego. International Journal of Drug Policy, 41, 132–139. [PubMed: 28111221]

TABLE 1.

PRIMER qualitative study participants in Tijuana, Mexico (n=21).

Pseudonym	Gender	Age	Race/Ethnicity	Reported ever providing injection initiation assistance (# persons)	Primary substance use and route of administration (past 30 days)	Housing status (past 6 months)	Self-reported health issues
Israel	M	44	Latino	30	Goofball IDU	SRO	HCV
Omar	M	47	Latino	1	Heroin IDU	House/apt	-
Aarón	M	30	Latino	10	Tobacco smoked	House/apt	-
Martha	F	36	White	1	Heroin IDU	Tenement	HCV
Nancy	F	39	White	1	Heroin IDU	Tenement	HPV
Edgar	M	55	Latino	1	Heroin IDU; Smoked Meth	House/apt	-
Lucía	F	36	Latina	2	Heroin IDU; Alcohol	Tenement	ALD
Sofía	F	38	Latina	3	Heroin IDU; Smoked Meth	Tenement	-
Carlos	M	45	Latino	2	None	House/apt	-
Leticia	F	41	Latina	3	Goofball IDU	Tenement	HCV, SSTIs, asthma
Lucas	M	50	White	1	None	House/apt	-
Julia	F	27	Latina	3	Speedball IDU	House/apt	-
Sergio	M	50	Latino	50	Heroin IDU	House/apt	-
Miguel	M	46	Latino	1	Heroin IDU; Smoked Meth	Friend's place	-
Bryan	M	35	White	2	Heroin IDU	House/apt	-
Polo	M	41	Indigenous	1	Goofball IDU	Friend's place	-
Gustavo	M	30	Latino	2	Heroin IDU; Smoked Meth	Shooting gallery	-
Martina	F	38	Latina	1	Heroin IDU; Methadone	House/apt	-
Mauricio	M	40	Latino	1	Heroin IDU; Methadone; Smoked Meth; Cannabis smoked	House/apt	HCV
Luna	F	25	Indigenous	6	Heroin IDU; Cannabis smoked	House/apt	HCV, T2DM
Misael	M	60	Latino	3	Heroin IDU	House/apt	-

F: Female; M: Male; IDU: Injection drug use; Goofball: Heroin/Methamphetamine; Speedball: Heroin/Cocaine; SRO: Single room occupancy; HCV: Hepatitis C Virus; HPV: Human Papillomavirus; ALD: Alcoholic Liver Disease; SSTIs: Skin and soft tissue infections; T2DM: Type 2 diabetes mellitus

Table 2.

Key findings regarding pathways to PWID providing injection initiation assistance in Tijuana, Mexico.

Main Theme	Summary of findings	Example
Increased curiosity about IDU among injection-naïve persons	Exposure to street-based injection in this setting and PWID's personal experiences of initiation shape perception of other's inevitability and normalization of IDU. Curiosity about IDU is also linked to pleasure-seeking.	*Street-based drug environment* "Wrong place, wrong time, with the wrong people, you know?" –Edgar, 55 years old *Normalization of IDU increases perception of inevitability.* "Honestly I don't think there's anything you can do to stop it, you know, or to prevent it… I believe that, you know, people are going to do what they are going to do no matter what." –Israel, 44 years old "Either way he will get injected with or without me, if he is going to use, or if he doesn't pay me, he would pay anyone else, he already has the idea of using drugs right, do you understand me? When something gets in your head, you have to do it, and until you do it, it's like you rest." –Nancy, 39 years old *Pleasure-seeking in intravenous drug administration.* "This drug here is uh you could say 'top notch', beats them all, beats them all man. […] Curiosity is always going to hit somebody where they are…[they're] gonna want to try it."–Israel, 44 years old
Harm reduction	Lack of harm reduction services (i.e., medically-supervised consumption facilities, naloxone distribution programs) drive experienced PWID to mitigate harms associated with IDU.	*Overdose prevention* "Well, there are people that, for example, I have seen how they have left them, that if, that if they overdose, they don't inject them with salt or anything. I have seen and have said, how can there be that [kind of] heart? Do people like that really exist? And even seeing them in front of me with my own eyes, I say, I didn't think it was like that; I don't know if it is just in Mexico, or in what places, but I can't believe it, and I have seen how they let people die. They let people die." –Sofía, 38 years old *Abscess prevention* "Yeah, 'cause a lot of people who don't know how to fix you know, they try to do it for the first time, and they miss you know, everything, and uh next thing you know walking around with a big abscess, and pain in their face, you know." –Israel, 44 years old *Initiate's personal safety* "And not everyone thinks the same. If they start to fall asleep, overdose, and they see that they have money or they have something… they are letting him nod off to steal from him, you get me?" –Martha, 36 years old *Decrease non-IDU drug harms (i.e., methamphetamine)* "I have seen people that don't sleep for 30 days [smoking methamphetamine] and they look like zombies over here and […]And they started using and… they got hooked on heroin so they left crystal [methamphetamine] and started using heroin, they started because they want to go down and they are hooked." –Omar, 47 years old
Reluctance to initiate others	Regret and shame linked to participants own IDU career and/or past experience providing initiation assistance increases reluctance and sometimes refusal to provide injection initiation assistance	"Because, ah, to inject someone? Because they don't know what awaits them. You know but, but that person doesn't know. Do you understand me? And nevertheless you said, 'look *güey* [dumbass] don't inject like that because this, and this and this. Ah! … That's why I didn't want to get involved. They really don't know. That's why." –Nancy, 39 years old
Unintended initiation	In some cases, participants were unaware that the person they were assisting had never injected drugs before. When probed on this matter, some participants believed it was a lie people tell themselves to disregard responsibility and/or cope with the stigma and shame related to initiating others.	*PWID did not know initiate had never injected before* "He lied to me and said that he had fixed before, and it was just like me, he wanted to fit in. Also, [I was] so loaded that I overlooked [arms without trackmarks]". –Israel, 44 years old *PWID suggest 'accidental initiation' is not possible* "It's not even by accident [to initiate someone], one knows well that.. Why are we making fools of ourselves, right? [to pretend it wasn't intiate's first time] Ha ha ha." –Edgar, 55 years old "[Initiates] get there with lies, with lies that, 'hey fool, well I really know, fool, I was *prendido* [hooked] for some time', but we know that it's not true, you get me? Because it is not the *misma clecha* [credibility], the dude does not have the same *túrica* [habit], doesn't have track marks, doesn't have anything and well you can see it, that the dude is not a junkie." –Gustavo, 30 years old
Current efforts to prevent injection initiation	In an effort to discourage IDU initiation, most PWID referred sharing a few words of wisdom and personal experience before initiating others as a 'warning'.	"…if you do it [initiate IDU], you're gonna look like me, and you're going [to] be [having] a hard time. I'll tell them." –Omar, 47 years old
Transactional assistance	Some participants were less reluctant to initiate others provided that drugs or money to purchase drugs was exchanged.	"Usually when someone is going to *enviciar* [get addicted] a person, it's because they have something, it's because there is something behind it." –Mauricio, 40 years old "Some people pay me [to provide injection initiation assistance], there are some people that give me drugs, you understand?" –Carlos, 45 years old

Main Theme	Summary of findings	Example
Gender differences	Overall, participants did not perceive differences in gender to influence the provision of injection initiation assistance from the initiator's point-of-view.	"Drugs are genderless. It's the same, whether you are a man, or a woman, or gay, or lesbian, no matter what you are." –Aarón, 30 years old

IDU: Injection drug use; PWID: Persons who inject drugs