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Title:
The Social Logic of Naloxone: Peer administration, harm reduction, and the transformation of social policy

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The Social Logic of Naloxone: Peer administration, harm reduction, and the transformation of social policy

Abstract:
This paper examines overdose prevention programs based on peer administration of the opioid antagonist naloxone. The data for this study consist of 40 interviews and participant observation of 10 overdose prevention training sessions at harm reduction agencies in the Bronx, New York, conducted between 2010 and 2012. This paper contends that the social logic of peer administration is as central to the success of overdose prevention as is naloxone's pharmacological potency. Whereas prohibitionist drug policies seek to isolate drug users from the spaces and cultures of drug use, harm reduction strategies like peer-administered naloxone treat the social contexts of drug use as crucial resources for intervention. Such programs utilize the expertise, experience, and social connections gained by users in their careers as users. In revaluing the experience of drug users, naloxone facilitates a number of harm reduction goals. But it also raises complex questions about responsibility and risk. This paper concludes with a discussion of how naloxone's social logic illustrates the contradictions within broader neoliberal trends in social policy.

Keywords: United States; naloxone; overdose; harm reduction; public health; drug policy; Bronx; neoliberalism

Introduction

It is widely recognized today that the War on Drugs has not only failed to reduce drug use in America but has also produced a host of harmful consequences. In response, alternative strategies are gaining ground. A major challenge to the prohibitionist consensus has been mounted by proponents of harm reduction, which seeks to ameliorate the negative consequences of drug use without prioritizing abstinence (Marlatt, 1996; Des Jarlais, 1995). Harm reduction is at once a public health strategy, a dimension of drug policy, and a health social movement (Brown and Zavestoski, 2004; Ezard, 2001; Inciardi and Harrison, 1999; Rhodes, 2009). Supporters of harm reduction have sought above all else to establish that drug users are "deserving of caring and life rather than punishment and death" (Small, Palepu and Tyndall, 2006: 74). Far from being a static and prescriptive program, harm reduction is fluid, reactive, and evolving, molding itself to the contours of existing drug laws and treatment options.

This article examines one of the newest and fastest-growing harm reduction interventions: peer-administered naloxone, a drug that reverses the effects of opiate overdose and, when administered

correctly and in time, can prevent death. Such strategies distribute naloxone kits and train users to administer the drug to their peers. Evaluations and meta-analyses of naloxone programs suggest that they can be effective in preventing drug-related death and may have other public health benefits (Breedvelt et al. 2015; Giglio, Li and DiMaggio, 2015; McAuley, Aucott, and Matheson, 2015; Clark, Wilder, and Winstanley, 2014; Walley et al. 2013; Green, Heimer and Grau 2008). But most studies of naloxone have been limited to evaluating its specific medical and public health effectiveness. Naloxone has not so far received the same critical analysis as other recent drug policies such as syringe distribution or methadone. The epistemic, social, and political innovations upon which naloxone depends, and the complex policy changes wrapped up in the practice of peer administration, have not yet been fully explored from a social-scientific perspective.

Analyzing sessions for training users in administering naloxone on their peers in the Bronx, New York City, this article investigates the social logic of naloxone. It argues that peer-administered naloxone depends not only upon the chemical properties of the drug itself, but also upon a distinctive approach to the social context of drug use. Whereas prohibitionist policies seek to isolate users from the spaces

and cultures of drug use, in contrast, harm reduction strategies like naloxone see the social networks of drug users as sites and tools for intervention. As a public health strategy, naloxone depends upon the experience and expertise gained by users in their careers as users. This social logic is as central to the success of naloxone as is the medication's pharmacological potency.

The social logic of naloxone facilitates a number of harm reduction's political and social goals. In exploiting the experiences and knowledge gained by those who consume drugs, naloxone contributes to the destigmatization of users, which is both a means and an end of harm reduction (Gowan, Whetstone and Andic, 2012). It formalizes a new relationship between drug users and the state, affirming users not as criminals or patients but as "indigenous public health workers" (Bennett et al., 2011) who are part of the public health project itself. Peer-administered naloxone, like the harm reduction movement more broadly, seeks to transform users from passive objects into more active political subjects (Friedman et al., 2004; Henman et al., 1998).

But in targeting and exploiting the social worlds of drug use, naloxone is also representative of recent neoliberal trends in public

health (Ayo, 2012). In deputizing the user as a public health agent, naloxone constructs a "responsible subject" charged with the job of "self-care" (Dean, 1999; Lemke, 2001). While acknowledging that new forms of surveillance might be the price to pay for access to life-saving resources, some critics have tied the new roles and responsibilities that emerge with harm reduction interventions like syringe exchange or naloxone to new forms of discipline of deviant populations (Bourgois, 2000; McLean, 2011; Moore, 2004; Roe, 2005). Yet, as Gowan, Whetstone and Andic (2012) argue, not all social policies that promote responsibilization should necessarily be seen as antithetical to social rights. "To the contrary, if such attempts simultaneously foster recognition of a collective, or relational, selfhood, they may create the preconditions for claims to social citizenship" (Gowan, Whetstone and Andic, 2012: 1258). The case of naloxone points to these sorts of conflicting potentials within contemporary social policy.

The questions are how, why, and to what ends particular policy logics are used, not merely whether they are used. Peer administration requires rethinking the subjects and objects of public health strategies. Leveraging the expertise of drug users forces a reevaluation of their life experiences. The ways in which users are

charged with administering drugs on others and thus with life-saving power decenters the authority of credentialized medical professionals, and raises complex questions about risk and responsibility. The social logic of naloxone therefore speaks to more general issues regarding the politics of social and public health policy today. As social interventions and network-based thinking become more common in social policy and the "new public health" (Petersen and Lupton, 1996), these issues have broader relevance.

Site and Methods

This article adopts a qualitative and ethnographic approach to studying social policy (see Stevens, 2011; Schatz, 2009: Yanow, 1996; Spradley, 1970). Using participant observation and interviewing, this approach relies upon "in-depth fieldwork… in order to analyze the concrete practices through which a policy is enforced in everyday life" (Dubois, 2009: 222). The goal is to examine the relational and iterative dimensions of policy formation and implementation, and to interpret the meanings and taken-for-granted categories that policies rely upon and operationalize. Critical policy ethnographies also connect the policy process to broader political-economic changes (Fischer, 2016). This approach is

therefore well suited to interpreting recent trends in overdose reversal, evaluating the assumptions upon which this form of policy relies, describing the techniques that it mobilizes, and explaining its relation to the broader context of neoliberal public health policy.

Data for this study were gathered over a two-year period from January 2011 to December 2012, as part of a larger study on the diffusion and institutionalization of harm reduction in New York City. Fieldwork involved participant observation at three syringe exchanges in the Bronx and 40 semi-structured interviews with agency staff and peer volunteers, employees of the New York City Department of Health and Mental Hygiene (DOHMH), the New York State AIDS Institute, and harm reduction advocates working at three New York City harm reduction and drug policy organizations. Participants were recruited based on their positions within these organizations or other involvement with naloxone training. After explaining the nature and purpose of the research, verbal informed consent was obtained from each interviewee. Fieldwork also included observation of ten overdose prevention trainings, a majority of which (N=8) took place at a syringe exchange here referred to as South Bronx Harm Reduction (SoBroHR). In addition to trainings aimed at active drug users,

naloxone training for staff of New York City-area social service agencies were also observed (N=2). In accordance with Institutional Review Board protocol, names of the organizations have been changed and interviewees are here referenced with randomly selected initials.

Opioid overdose fatalities have nearly quadrupled since 1999, and are now the leading cause of accidental death in the United States. An estimated 91 Americans die every day from an opioid overdose (Rudd et al. forthcoming). In line with national trends, overdose has become a leading cause of death in New York City (see Piper et al., 2007, 2008). Heroin overdose more than doubled between 2010 and 2013, and overdose from opioid analgesics rose by 256% between 2000 and 2013 (DOHMH, 2014: 3; Siegler et al., 2014). The South Bronx, where data for this study were collected, has persistently had the highest rate of opiate overdose in the city (DOHMH, 2011).

The South Bronx is also home to some of the city's oldest and most established harm reduction agencies. These agencies grew out of the work of activists who initiated underground syringe distribution in the early 1990s in response to the HIV/AIDS crisis. Overtime, activist groups professionalized and began offering harm reduction

and other health services in partnership with City and State health departments. Today, SoBroHR provides a variety of programs and services to its more than three thousand participants, including syringe exchange, case management, employment training, onsite primary health care and pharmacy, soup kitchen, showers, laundry, and social space. More than just a needle exchange, SoBroHR is a service provider and community space that has come to play a vital role in the "geography of survival" (Mitchell and Heynen, 2009; McLean, 2012) of many of it homeless and drug using participants.

SoBroHR was one of the first agencies in the city to offer overdose reversal training and access to naloxone. In 2005, New York passed legislation authorizing opioid antagonist administration programs, and the state health commissioner established standards for overdose prevention programs and the use of naloxone by non-medical personnel. Naloxone programs are now licensed by the NYSDOH and abide by the regulatory framework set out by the law (Beletsky, Burris and Kral, 2009). As HIV/AIDS rates among injection drug users have declined, established agencies like SoBroHR with deep roots in the community have been instrumental in developing programs for overdose prevention as a new epidemic has taken hold.

Naloxone as a Harm Reduction Strategy

Before the development of formalized overdose reversal programs, drug users engaged in various do-it-yourself strategies to prevent overdose death. Improvised folk remedies like placing ice on genitals or injection of concentrated saline were largely ineffective and often dangerous (Beschner and Bovelle, 1985: 93-97; Maxwell et al., 2006: 89-90). And though overdose has long been a common and tragic fact of life among opiate users, it was not until the late 1990s and early 2000s that activists in Chicago, San Francisco, New York, and elsewhere began to develop naloxone-based overdose reversal as a core harm reduction strategy.

Naloxone hydrochloride—also known by the brand name Narcan—is an opiate-blocking drug that reverses the effects of overdose by counteracting the depression of the central nervous and respiratory systems that can cause death. Patented in 1961 and promoted in the 1960s as a possible replacement for methadone (Zaks et al., 1971), naloxone quickly became important in the treatment of accidental opiate overdose within clinical settings. It is effective on all types of opiate overdose, from heroin to prescription pharmaceuticals like oxycodone and fentanyl. Naloxone has an unscheduled regulatory

classification, meaning that it has no addictive or psychoactive properties and thus no potential for abuse. Serious adverse affects are rare and naloxone will have no effect on non-opiate users (Buajordet et al., 2004). Typically, the drug takes effect within a few minutes and lasts from thirty minutes to two hours depending on the dose administered and the amount of opiates present in the body.

Despite its lifesaving potential, naloxone's use as a harm reduction tool was not immediately obvious. As typically practiced by paramedics, intravenous administration of a high dose of naloxone rapidly strips the body of opiates, which is the functional equivalent of throwing a dependent user into sudden and violent withdrawal. As Chicago Recovery Alliance (CRA) member Dan Bigg notes: "For those who had heard about naloxone, it was generally as kindly as garlic might be to a vampire" (Harm Reduction Coalition, n.d.). Underscoring the connection between naloxone and punitive war-on-drugs-style policy, KR, an addictions researcher and user-activist, reported a widely circulating rumor that police would inject suspected users with naloxone in order to consider the appearance of withdrawal symptoms as justification for arrest. Naloxone, then, was widely known but not immediately adopted as part of the

common practice of users. Naloxone's successful use as a public health tool required the development of a strategy attuned to the social contexts of drug use and overdose.

It has long been recognized that people use drugs within a social context (Becker, 1953; Young, 1971; Latkin et al, 1995). But the politics of addiction and punishment that surround drug use has tended to see this social context as the root of the problem. Prohibitionist approaches are based on the assumption that the social settings of drug use and social connections between users are wholly negative, nothing but spurs to drug consumption and crime that should be avoided. Early progressive drug policy also sought to separate drug users from their social environments, typically incarcerating city-dwellers in rural 'drug farms,' where it was hoped that hard work and a healthy diet would cure the social, moral, and physical deficiencies of the 'addict' (Campbell, Olsen and Walden, 2008). The drug farms were short lived, but the underlying assumption about the corrosive nature of drug users' networks remained and became the blueprint for the residential model that continues to dominate the American drug treatment industry today.

Turning the notion of social contagion on its head, peer-to-peer administration is the major innovation that underpins the successful public health application of naloxone. The practice of peer administration transformed naloxone from an unwelcome intervention imposed by unsympathetic emergency medical personnel into a symbol of drug user self-help and mutual aid. The idea of peer-administered naloxone was developed by user-activists, front-line medics, and other supporters of earlier harm reduction strategies. Just as syringe exchange originated as a direct, pragmatic response to the HIV/AIDS crisis among injectors, naloxone's extra-clinical trajectory also began as an emergency response to a deadly problem. The CRA began its work in 1996 in response to the overdose death of activist John Szyler. Medics working with the CRA began dispensing naloxone directly to select participants (Maxwell et al., 2006), paving the way for the adoption of naloxone by user-activists and their allies.

The earliest naloxone pilot programs distributed the drug to users in pairs who would be responsible for each other (Seal et al., 2005: 304). However, restricting naloxone prescriptions to established pairs proved impractical and it quickly became clear that another model was needed. Examining the structure of syringe circulation

within user social networks, one group of researchers identified "the existence of 'hubs' or 'nodes' of experience and knowledge within drug-using communities which appear to be recognized by users and their peers" (Bennett et al., 2011; See also Marshall et al., 2015). Naloxone supporters adopted this insight. The hope was that "[o]nce naloxone rescue kits are distributed into the community to people trained in overdose prevention, they are further disseminated through social networks to people who were not trained directly by the distribution programs" (Doe-Simkins et al, 2014). The very structure of once-maligned user networks is now seen as a tool to amplify the effectiveness of public health policies.

The goal was for nodal individuals to serve not only as the point of entry for public health interventions but also as the agents of those interventions. Bennett et al. (2011), drawing on Giblin (1989), understand peers in harm reduction as "indigenous public health workers": non-credentialed, informally trained participants who are deputized to perform public health work. The emergence of peer work in harm reduction is a way to overcome the distance between users and the formal health system, which often cooperates with the same punitive state that punishes and stigmatizes users (Dechman, 2015). It also reflects the restructuring of social services, which

increasingly emphasize participation and the "buy-in" of recipients (Martin, 2008). Users have credibility among each other that outsiders and professionals generally lack. And indigenous public health workers, unlike most of their formally-credentialed counterparts, are familiar with the spaces and routines of drug use.

By training users to administer naloxone on one another, overdose-reversal drugs can be deployed precisely when and where overdose occurs by people familiar with the experience of drug use who are able to draw on local knowledge. According to the Harm Reduction Coalition (HRC), between 1996 and 2013, over 152,000 laypersons have been provided with training and naloxone kits. Of these recipients, 81.6% were characterized as drug users, while 11.7% were family and friends and 3.3% were service providers (Wheeler et al., 2015: 631-632). These figures suggest that drug users administering naloxone on their peers, and not health professionals, are the central agents of this strategy.

Mobilizing Peers

Peer-administered naloxone depends upon the existence of drug users who can act as peers. Users become peers after attending

training sessions and being issued naloxone by a person with prescribing authority. These training sessions, which are required by law and typically occur at syringe exchanges, provide more than just instructions on how to deploy naloxone on an overdosing body. They are also occasions for fostering a new, active role for users within their social networks.

Overdose prevention training takes place every day at SoBroHR. Training sessions are part of a roster of groups that participants can attend. Participation in these groups is incentivized by the distribution of a round-trip MetroCard, at the time worth $4.50. There is no limit to the number of times an individual participant can sign up for an overdose prevention group, and indeed many attendees are regulars.

Training sessions are short, lasting up to thirty minutes, and typically include about fifteen participants and one trainer. Instruction can take place in English or Spanish, and though a set curriculum is repeated each time, conversations vary according to the experience of participants. These sessions are often the only instruction that participants receive when they take on the peer role. Upon completion, participants are given a prescription for

naloxone and a kit containing two vials of the drug and either two syringes or atomizers, first aid equipment, and written instructions. Training sessions can be conducted by peers, agency staff, or others, though only physicians or licensed physicians' assistants have prescribing authority.

Based upon pre-existing relationships within user social networks, the peer role was formalized in order to meet multiple objectives. For some, overdose prevention training is a way to improve the lives of users generally. NR, a veteran harm reduction activist, sees naloxone as all about "recognizing that you need to put tools in the hands of drug users so they can have autonomy over their drug use." For others, being trained as a peer offers a sense of purpose that users are often denied. VU started as a participant at SoBroHR and went from peer to member of staff.

> *VU: When I first got here, I didn't feel out of place. What I did feel was included in the process. Everywhere during the time I was using, that was something that was stigmatized. That I was a drug user, all the behaviours that I went through. I was excluded from many places. So when I got here, and they included me, that was very significant to me.*

CT, a peer program coordinator at another harm reduction agency, offers similar observations. For her, mobilizing peers is a way "for disenfranchised communities to have some sense of belonging."

> *CT: It serves as somewhat of a motivation to get people interested in not just doing outreach but being aware of the communities that they're serving and those social networks that happen with people, and what it looks like to become more political.*

For CT, overdose reversal is part of a larger harm reduction ethic. Other peers see being ready to administer naloxone as a way to "give back" to the harm reduction community itself. LW is a peer and member of SoBroHR's participant advisory board:

> *LW: It's taught me a lot. It's taught me to be responsible. And the only way I can give back is what I'm doing now... I'm just a participant, peer, whatever, but I take so much pride in coming in to SoBroHR.*

Other participants also come to strongly identify with the naloxone project. A fieldnote excerpt describes RI, a regular at SoBroHR for whom involvement with naloxone is a major part of the presentation of self:

> *RI is a tall Latino man in his mid-thirties. He has short black hair and a rigid posture. He strides through SoBroHR with an air of familiarity and authority. He attends all of the naloxone training sessions, often volunteering to act out the role of overdoser. He wears a naloxone kit around his waist, the blue pouch dangling from his belt like a janitor's key ring.*

User activists and their allies claim naloxone as tool of empowerment. The peer role offers users the possibility of authority and respect in a world that often denies it to them.

Also in line with harm reduction's ethos, training sessions are organized in ways that foster participant-led dialogue. Trainers do not emphasize the status differences between themselves and the peers. They seek to facilitate discussion with and among peers, encouraging attendees to use training sessions as spaces to share their personal experiences. Repeatedly returning to training sessions long after they have mastered the technical information necessary for properly administering naloxone, peers use sessions to share "war stories" about overdoses they have experienced or witnessed, and to remember friends they have lost. Trainees also critically reflect upon naloxone itself. At one session at SoBroHR, a peer remarked, "I know some people who would actually be very angry if you administered Narcan…. Knocks the heroin right out of them," leading to a longer conversation about the ethical and practical dilemmas of naloxone administration. Naloxone training sessions are opportunities to collectively face some of the challenging questions that pattern many users' lives: the everyday threat of overdose and death, the complexities of overdose reversal, and the possibility of redemption and transformation.

In a process driven at once by public health workers and by participants, the peer role has developed into an instrument of

public health policy. By adjusting the peer's sense of self as an active moral agent, naloxone supporters hope that participating in overdose prevention will have a broader set of positive effects. KR, a prescribing physician noted, "Actually, my personal view of it is that the person doing it, the person reviving the other person may be the person most likely to go into treatment." Peers are trained as indigenous public health workers capable of intervening in overdose. But naloxone supporters hope that peers will have a wider impact on their communities, on the public perception of users, and on themselves.

Expertise and Experience

Among all objectives, however, the predominant purpose of training sessions is to educate peers so that they are prepared to administer naloxone. Training programs vary between locations but a core curriculum developed with the input of the HRC includes basic opioid neurophysiology; pharmacodynamics and pharmacokinetics of opiates and of naloxone and other opiate antagonists; risk factors and prevention techniques for opiate overdose; signs and symptoms for the early recognition of overdose; prevention of choking and aspiration in unconscious patients; techniques of rescue breathing;

routes of administration and dosing guidelines for naloxone; and protocols for follow-up care (Maxwell, 2006).

Learning to administer naloxone requires mastering a broad amount of practical and technical knowledge. Properly administering naloxone requires knowing how to recognize that an overdose is occurring; how to manoeuver an unresponsive body into the recovery position in order to reduce the risk of choking and to optimize airflow; determining whether or not naloxone is even appropriate given the specific substances that have been ingested; how to use syringes and other medical paraphernalia in a highly time-sensitive, life-and-death situation; and how to respond to possibly violent people experiencing drug withdrawal symptoms. Few public health initiatives place this level of responsibility in the hands of non-specialists.

An excerpt from a training session demonstrates the high level of practical and technical knowledge that peers are asked to master. The session excerpted here was led by NK, a physician's assistant, in conversation with MP, who is a regular training session attendee.

> *NK: So if you're going to give them an intramuscular dose, you've got two bottles like this, and two syringes. One syringe for each bottle. You only have to use the*

> *syringe once. You're not looking for a vein, it's intramuscular.*
> *MP: You can hit the leg or no?*
> *NK: You can hit the leg. The next step… these are single dose vials, so use the whole bottle, you don't have to worry about measuring. And there's not very much in here. It's 1 CC, so the bottle looks like it's almost empty. Don't be alarmed. You just want to get everything that's in the bottle into the syringe. And to help you do that, it helps to put some air into the bottle first. So open up your syringe, get a CC of air into there. And then, the bottles have a little orange top on them. Pull the top off, and then there's a little rubber stopper. Just put the needle right through the stopper, just so you can see the point sticking out at the top. Then we can push the air in, the pressure will start to push it out by itself. If the needle's too high, you'll start to get air, so if you're getting air and there's still liquid left in the bottle, push the air back out, pull the needle down so it's under the surface, just so you can see the tip sticking out, and then pull the rest in. Just get as much in as you can, every drop. And then any air left in the needle, push it out. And then you're ready to go.*

As this excerpt makes clear, peers who participate in naloxone interventions are asked to perform complex actions, requiring attention to detail and a technical facility with medical equipment. Peers must make sophisticated medical decisions, drawing upon knowledge gleaned from training sessions as well as practical knowledge learned from experience with drugs use.

Once medical equipment has been prepped, the peer needs to administer naloxone through injection into the body of the person

who is overdosing. Peers need to know where on the body is best for the medicine to be absorbed quickly.

> *MP: What about the butt cheek?*
> *NK: Not the butt cheek. Don't go in the butt. One, that's where the most fat is. And you want to go under the fat, into the muscle. So you got a guy with a lot of body fat, don't be afraid to go deep. Cause you want to get underneath the fat. The muscle has all the circulation.*
> *MP: What happens if the person is thin?*
> *NK: Thin? It's not going to go that far, if you go too far you're going to hit bone. Can't go further than bone. You want to go straight in. Cause that'll get you to the muscle the quickest. If they're skinny, it's not going to go all the way. You can actually kind of feel cause your muscles are surrounded by a thick membrane, so as you go in, you might feel it resist a little bit and then pop through. Then you know you're in the muscle. You want to go in straight, don't be afraid to go deep, like a dart. Stick it in, push all the medicine in, and then, when you're done…*
> *MP: Get ready to run!*

Peers are tasked with making significant decisions about when, where, and how to administer naloxone. They draw upon their own knowledge in order to be comfortable manipulating a body in a moment of acute medical crisis. They represent the leading edge of the medical apparatus, administering emergency medical care until medics can arrive.

Naloxone training sessions build upon the significant expertise that drug users develop in their careers as users. Another fieldnote

excerpt describes a typical meeting of an overdose prevention training group at SoBroHR.

> *NK: So what are the different kinds of opiates?*
> *[Crowd calls out long list of different forms of opiates, including heroin, methadone, oxycodone, hydrocodone, morphine, codeine, Vicodin, Percocet, Xolox, Dilaudid, Fentanyl, Demerol, etc.]*
> *DS: Opioids is made to work on the same receptors as the opiates.*
> *NK: Right. Besides opiates, there's completely synthetic medicines, like Fentanyl is one, methadone is one, those are all made in the laboratory.*
> *DS: Suboxone is an opiod.*
> *NK: Right, right. Opioids are opiates, so they're both natural opiates, from the opium poppy, and synthetic ones.*
> *FE: Mmmhm.*
> *DS: I know medicine, man, I know medicine.*
> *NK: So again, those are the drugs that Naloxone works on. It doesn't work on, in particular, the benzos, the benzodiazepines. So what are some of those?*
> *Group: Xanax, Klonopin, Librium, Ativan…*
> *FE: What about Catapres?*
> *NK: No, Catapres isn't a benzo, but it also doesn't work with this. It's something that you could potentially overdose on.*
> *DS: It's not a benzo, but it works like one, boy. You take a Catapres with some dope or whatever…*

The attendees have deep knowledge about opiates already, acquired well before they began their training sessions. They know the difference between opiates and opioids, they can identify benzodiazepines, and they have an understanding of the biochemical differences between different classes of drugs and their effects on the body.

Peers use training sessions to exchange specific medical information drawn from their experiences. For example, participants share hard-won wisdom about the strength of certain branded batches of heroin, warnings about the relative potency of fentanyl and other pharmaceuticals, and advice about which combinations of substances were particularly effective or lethal. The trainers encourage this kind of knowledge transfer, and invite participants to explain and demonstrate various components of the training curriculum.

Far from treating users as passive objects of policy intervention, then, naloxone draws on the relatively high degree of medical knowledge that exists, in its own distinct forms, within the cultures of drug user networks. Overdose reversal would be impossible without precisely those practices, knowledges, and skills that are stigmatized in prohibitionist drug policies: facility with needles, experience with drug interactions, comfort and familiarity in the social spaces of drug use. Users can act as competent reversers of overdose only because they possess this taboo form of expertise. Only users themselves have the requisite combination of vernacular medical knowledge and familiarity with the routine situations of drug use. As NK observed, "I mean there's a cultural thing. People

who have experience with needles are fine with it." Subsequent research confirms that this form of user expertise is effective in emergency situations. One study found that "people trained in overdose recognition and naloxone administration were comparable to medical experts in identifying situations in which an opioid overdose was occurring and when naloxone should be administered" (Green, Heimer and Grau, 2008: 984). This effectiveness is due precisely to users' expertise. In abandoning the prohibitionist insistence on stigmatizing the experience of the user, harm reduction strategies like naloxone have identified a potent public health resource.

Risk and Responsibility

In utilizing the networks, experience, and expertise of drug users, naloxone also creates new relationships between users and medical authorities. While naloxone distribution continues to rely on various medical experts, the general impact of the peer-to-peer model is to diminish the central authority of the physician in the provision of life-saving care. This process raises new questions about responsibility, liability, and authority.

Naloxone training sessions make clear that peer administration does carry with it a number of risks. Recipients risk nerve damage from a misplaced injection, among other possible injuries. Administrators risk exposure to blood and other potentially biohazardous fluids, and the violence of people who "wake up swinging." The significance of these risks tends to be downplayed by naloxone supporters. Informants involved in naloxone programs were unanimous in asserting that the risks of injury or harmful side effects are minimal. When questioned about the possible risks of a botched naloxone administration, FW, a physician involved with naloxone programs reported, "The only thing that could go horribly wrong is that the person dies anyway." The assumption is that anyone who needs naloxone would otherwise experience fatal overdose; hence, to a greater extent than in most other areas of medicine and social policy, routine rules are suspended.

Peer administration is at the core of naloxone programs but it clashes with traditional lines of medical authority. Peers receive prescriptions at the end of training sessions, but naloxone is not intended for use on the person for whom the prescription is written. Instead, naloxone is administered by the prescription-holder on a third party whose identity has not been predetermined by the

prescribing authority and about whom no prior knowledge is available. The prescription-holder might have a longstanding relationship with the person on whom they administer naloxone, where medical history, risk, and consent could conceivably have been discussed—or they might be complete strangers where none of these issues could possibly have been addressed.

The questions regarding responsibility and liability significantly structure access to and support for naloxone. FW, the physician who was involved in the development of naloxone programs in New York recalled:

> *FW: The law holds the person administering naloxone harmless. And it holds the programs harmless. It doesn't hold the prescribers harmless, they tried to make them harmless but they didn't make it through the code committee on the state level. So liability and malpractice is still somewhat of a disincentive to physicians who want to get involved in prescribing naloxone. So liability is not decided. Malpractice companies haven't looked closely at the naloxone program. There hasn't been a test case.*

The uncertain legality of peer-administered naloxone distribution continues to be the most important barrier to wider participation by physicians, even though legislation has been passed shielding them from liability.

Even after questions of legal liability have been settled, the move from physician to peer administration seems to some to threaten traditional forms of medical authority. A naloxone trainer described this position:

> *NK: One of the big barriers is I think because it sort of breaks the professional barriers, and I think that's why in some ways a lot of the resistance is coming from MDs… They like being the gatekeepers for control of this stuff.*

For this reason, many harm reduction advocates see doctors as opponents of peer-administered naloxone. This conflict over the gatekeeping function of medical decision-making is part of the broader politics of harm reduction. But because of questions surrounding prescribing authority, it is particularly acute with peer-administered naloxone.

Ultimately, peer-administered naloxone is only one part of the public health response to overdose. Even trained peers must continue to interact with the formal medical system. It is important that emergency medical services be called after administering naloxone, as the overdoser is still at risk of lapsing back into overdose and may experience other symptoms associated with opiate withdrawal. Many users fear summoning emergency responders, as doing so often means police involvement, which could lead to arrest.

This may be the most serious obstacle to naloxone's success (Brodrick, Brodrick, and Adinoff 2016). A Good Samaritan Law was passed in 2011 to address this fear (see Drug Policy Alliance n.d.), as were other immunity laws enabling the practice of medicine without a license. But many would-be peer administrators remain apprehensive. One of the DOHMH harm reduction staffers explained:

> *CG: I'm all about getting more naloxone into the hands of more people. The problem with naloxone is as it stands right now, it's coupled with education. And that education piece is really important. So how do you talk to people about the risks of an overdose and how you actually use naloxone. If you can just buy it off the shelf at a pharmacy, it's not clear that somebody's going to A, use it in the right circumstance, B, use it in the right way, C, still call 911, which is crucial and that's the biggest thing that we educate people about. Call 911, then give the naloxone. Whatever you do, you still have to call 911.*

There is no legal mechanism to *require* drug users to call emergency medical services. The administration of naloxone, and the summoning of help, is at the observer's discretion. In transferring responsibility onto users to administer life-saving drugs to their peers, naloxone also transfers a number of risks: the risk of harm, the risk of death, the risk of entanglement within the legal system which has a still-evolving relationship to peer-administered services for drug users. Naloxone programs evidently cannot occur without transferring authority to users, but in doing so, they raise a number

of questions that, at least in New York City, remain largely unanswered.

Discussion and Conclusion

This paper has argued that in order to function as a public health strategy, peer-administered naloxone overdose prevention programs rely upon a distinctive social logic. Breaking with the War on Drugs paradigm that warns against peer influence, overdoes prevention mobilizes peers as indigenous public health workers. Such programs exploit, rather than seek to erase, the social connections, tacit knowledge, and specific expertise that users acquire as users. This social logic has enabled naloxone to succeed and fueled its growth as a public health strategy. But it also raises difficult questions about responsibility and risk. Users are tasked with saving the lives of their peers, asked to carry out technically advanced public health work without any remuneration—and with no established consequences if they fail.

It is clear that the social logic of naloxone has both medical and political motivations. Public health departments came to recognize that medical interventions that did not overcome the alienation that

users experience at the hands of the formal health system were bound to fail. Revalorizing the life experiences of the drug user was the only way to effectively intervene to stem the overdose crisis. Because it looks to users themselves as experts, naloxone revalues the experience of marginality. It forges new coalitions between medical researchers, law enforcement, public health administrators, and drug users activist groups in order to pursue progressive goals. By integrating drug users as users into political society, this form of drug policy potentially provides new avenues for participation, solidarity, and citizenship.

In empowering users as health workers, naloxone assumes and bolsters neoliberal trends in social policy. Critical analysts of harm reduction like Bourgois (2000), Roe (2005), and McLean (2011) have connected harm reduction's emphasis on self-care with the neoliberal drive towards responsibilization, where individuals are burdened with responsibilities—such as the protection and preservation of life—that had previously belonged to the state and other collective institutions. This study suggests that in many ways, naloxone is consistent with this story. Naloxone prioritizes pragmatic interventions while remaining agnostic towards the structural causes of social suffering. These programs depend upon

decentralizing authority and redistributing accountability towards individuals and self-organized communities. At least in the American context, peer-administered naloxone is in fact unthinkable without the transformations in public health associated with neoliberalism.

But the case of naloxone complicates this line of criticism. Peer-administered overdose reversal suggests that decentralization, deputization, and responsibilization can be compatible with projects for collective dignity, autonomy, and mutual aid. It is arguably an example of what James Ferguson sees as a policy that exploits typical "neoliberal moves" (Ferguson, 2009: 174) for progressive ends. Rather than seeing naloxone as an example of the imperative to discipline and control, it may be more fruitful to see it as a public health innovation that has managed to prevail in the era of austerity and privatization in part by harnessing neoliberal techniques towards different goals. Rather than denying the existence of social networks or destroying them through commodification, naloxone seeks to use and strengthen them.

Peer-administered naloxone thus points to the complexity of contemporary developments in social policy and public health. It

demonstrates that in a time when the state is absolving itself of traditional responsibilities for the care of citizens, some new opportunities for progressive policymaking are emerging. Amid a broader shift towards privatization, the case of peer-administered naloxone suggests there are also new ways for policy to become social.

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Highlights

- Peer administered naloxone relies on social dynamics of drug use
- Drug users' expertise leveraged to pursue public health aims
- Peer administration raises questions about risk and responsibility
- Drug users gain new role as indigenous public health workers
- Peer administered naloxone example of public health policy in a neoliberal era