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Law enforcement attitudes toward overdose prevention and response

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Abstract

Background—Law enforcement is often the first to respond to medical emergencies in the community, including overdose. Due to the nature of their job, officers have also witnessed first-hand the changing demographic of drug users and devastating effects on their community associated with the epidemic of nonmedical prescription opioid use in the United States. Despite this seminal role, little data exist on law enforcement attitudes toward overdose prevention and response.

Methods—We conducted key informant interviews as part of a 12-week Rapid Assessment and Response (RAR) process that aimed to better understand and prevent nonmedical prescription opioid use and overdose deaths in locations in Connecticut and Rhode Island experiencing

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Contributors:
TCG conceived of the study, oversaw data collection and analaysis, and prepared the final manuscript. MR and SB helped collect the interview data, coded and analyzed the transcripts, and contributed to the first drafts of the manuscript. WP, NZ, RH and PC took part in the analysis and manuscript writing. TCG had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

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overdose "outbreaks." Interviews with 13 law enforcement officials across three study sites were analyzed to uncover themes on overdose prevention and naloxone.

Results—Findings indicated support for law enforcement involvement in overdose prevention. Hesitancy around naloxone administration by laypersons was evident. Interview themes highlighted officers' feelings of futility and frustration with their current overdose response options, the lack of accessible local drug treatment, the cycle of addiction, and the pervasiveness of easily accessible prescription opioid medications in their communities. Overdose prevention and response, which for some officers included law enforcement-administered naloxone, were viewed as components of community policing and good police-community relations.

Conclusion—Emerging trends, such as existing law enforcement medical interventions and Good Samaritan Laws, suggest the need for broader law enforcement engagement around this pressing public health crisis, even in suburban and small town locations, to promote public safety.

Keywords

law enforcement; police; overdose; prescription opioid abuse; naloxone

1. INTRODUCTION

Poisoning is the leading cause of adult injury mortality in the United States (US; Centers for Disease Control and Prevention, 2012), composed primarily of drug poisonings (overdoses). Nationally, there has been a more than five-fold increase in unintentional drug overdose deaths since 1970 (Centers for Disease Control and Prevention, 2011a). Opioid pain relievers are the most commonly involved type of drug, responsible for over half of unintentional drug overdoses (Centers for Disease Control and Prevention, 2011b). Geographic distribution of prescription opioid-involved deaths suggests not only differences in epidemiology but also in availability and provision of emergency medical resources, access to which may determine the injury outcome. In particular, a tendency of prescription opioid overdoses to occur outside of metropolitan areas in small town and suburban locations places greater emphasis on local public safety professionals for responding to these health emergencies. Like all injuries, the majority of drug poisoning deaths is preventable and, if witnessed, overdoses can be effectively reversed. Recent attention has focused on how first responders, both emergency medical technicians (EMTs) and police, can prevent and respond to overdoses (Centers for Disease Control and Prevention, 2011b). Much of this focus has been on providing first responders, particularly EMTs (e.g., other than paramedics), with naloxone to reverse opioid induced overdose (Banta-Green et al., 2013; Office of National Drug Control Policy, 2011, 2012). Police are often trained in provision of first aid and larger police departments may have EMTs on staff, suggesting capacity for overdose response activities (c.f., Quincy, Massachusetts Police Department as example). However, numerous studies have documented reticence on the part of substance using populations to call 911 in the event of an overdose emergency (Bohnert et al., 2011; Burris et al., 2004; Darke et al., 2000; Green et al., 2009; Pollini et al., 2006; Sherman et al., 2007; Tobin et al., 2005; Tracy et al., 2005) for fear of police involvement. Given that there are significant barriers to wider, community-based dispensation of naloxone, fear of police involvement exacerbates limited community naloxone availability. Furthermore, little data

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exist regarding law enforcement attitudes toward overdose prevention and response; none focus on prescription opioid overdose prevention and response. Such data may shed light on the perceived role of police and may challenge the belief held by some that police are uninterested in supporting or becoming involved in overdose prevention and response efforts.

The public's perception of law enforcement as being uninterested in overdose prevention may be traced to over forty years of drug market enforcement practices and related criminal sentencing policies targeting urban (open) illicit drug markets, especially within communities of color (see Kerr et al., 2005). Research to date has consistently demonstrated that drug market enforcement practices are a critical structural determinant, either enhancing or minimizing drug-related morbidity and mortality (Beletsky et al., 2005; Bohnert et al., 2011; Cooper et al., 2012; Friedman et al., 2006, 2011; Rhodes, 2002; Rhodes et al., 2006; Silverman et al., 2012). These enforcement practices have been shaped by guiding policing strategies, e.g., community or problem-oriented policing, COMPSTAT, "Stop and Frisk," etc., (Geller and Fagan, 2010; Goldstein, 1979; McDonald, 2001; Weisburd et al., 2003; Willis et al., 2004), organizational characteristics (Chappell et al., 2006) and discretion (Walker, 1993), all of which vary by jurisdictional and political confluences. With some exception (Rivers et al., 2012), traditional street-level enforcement strategies remain the standard response towards illicit drug use (Kerr et al., 2005) irrespective of secondary harms, including an expansive correctional population, disparities in arrest rates for people of color, and felony disenfranchisement, to name a few. Research clearly demonstrates these practices create a marked climate of distrust, fear, secrecy, and uncertainty for drug users (Beletsky et al., 2005; Burris et al., 2004; Compton and Volkow, 2006). Exclusive drug market enforcement policing activity may contribute to higher drug overdose mortality rates through: (1) *fear* of police arrest among individuals who witness an overdose, thereby delaying the response of emergency personnel; (2) heightened police *presence,* thereby indirectly promoting drug use in seclusion; and (3) areas with more arrests having more incarcerations, wherein the post-release period is a known risk period for fatal overdose (Binswanger et al., 2007; Bohnert et al., 2011).

In contrast, a number of recent legal and policy changes explicitly include law enforcement partners and suggest there may be other opportunities for a community response that could reduce overdose mortality. First, the Office of National Drug Control Policy called for expanding the availability of naloxone (an opioid overdose antidote) beyond the public health arena to include first responders-especially law enforcement - and for dismantling legal barriers disallowing such practices to date (Kerilowske, 2012). Second, the National Association for Drug Diversion Investigators issued a public statement calling for law enforcement agencies to adopt policies allowing officers to carry and administer naloxone to individuals experiencing opioid overdose proclaiming, "the availability of this product will ultimately save many lives, as police officers are oftentimes the first responders where delays of only a few seconds can mean the difference between life and death" (National Association of Drug Diversion Investigators, 2012). Third, legal interventions via Good Samaritan Laws, which provide limited immunity from drug-related charges when 9-1-1 is called in an overdose emergency, and statutes allowing for "third party prescription" have

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served to lessen overdose secrecy, silence, and stigma (Beletsky et al., 2007; Compton and Volkow, 2006) and increase naloxone's availability and use (Davis, 2012). Moreover, current federal legislation, such as Stop Overdose Stat Act, would facilitate: (1) widening the purchase and distribution of naloxone; (2) educating physicians and pharmacists about overdose prevention and naloxone prescription; (3) training first responders, including law enforcement, on effective overdose response; and (4) implementation or enhancement of programs that provide overdose prevention, recognition, treatment, and response to individuals (National Association of Boards of Pharmacy, 2012).

The law enforcement community itself has a varied range of attitudes and perceptions about those who use drugs and related treatment modalities and policies (see Beyer et al., 2002). This workplace variance stems from the fact that law enforcement routinely witnesses the inherent human complexities of drug use and the outcomes of current drug control mandates (Beletsky et al., 2005). As such, novel drug control policies and practices (see Beletsky et al., 2011, 2005; Beyer et al., 2002; Rhodes et al., 2006; Rivers et al., 2012; Silverman et al., 2012) and, as previously outlined, recent legal and policy changes to standard drug control practices, may increase the odds of aligning public health and criminal justice objectives. As strategic policing innovations introduced over the past forty years such as community policing, "broken windows" policing, third party policing, hot spots policing, and evidenced based policing (Braga and Weisburd, 2007; Moore et al., 1997) suggest, policing has gradually shifted from an *exclusive* enforcement model to one more accepting of a problem-solving framework when encountering people affected by homelessness, mental illness, drug-market driven violence, substance abuse, and cardiac episodes (Hawkins et al., 2007; Kennedy and Wong, 2012; Morabito et al., 2013; Newman et al., 2002; Rivers et al., 2012; Schaefer Morabito, 2010; Wood et al., 2011). Most encouraging have been recent albeit *jurisdictionally limited* strategic innovations melding traditional public health prevention programs for people who inject drugs (PWID) with policing (Beletsky et al., 2011; Davis and Beletsky, 2009; DeBeck et al., 2008; Silverman et al., 2012). While there has been a range of studies examining the role of drug enforcement attitudes and practices on the health of PWID (Beletsky et al., 2005; DeBeck et al., 2008; Jardine et al., 2012; Rhodes et al., 2006; Silverman et al., 2012; Small et al., 2012) there have been no studies to date of law enforcement attitudes about overdose prevention and response, especially within the context of non-medical prescription opioid use (NMPU). The aim of this analysis is to explore law enforcement perspectives on overdose prevention and response from a subset of interviews collected during a Rapid Assessment and Response study investigating prescription opioid overdose outbreaks in three New England communities (the RARx Study).

2. METHODS

Data collection was conducted in three small town and suburban locations in Connecticut (CT) and Rhode Island (RI). The RARx Study aimed to better understand patterns of prescription opioid overdose in selected communities experiencing high overdose burden and to suggest targeted ways to better prevent them. Study methods are reported elsewhere (Green et al., 2013). Briefly, field staff conducted qualitative interviews between June and August 2011, using a semi-structured interview guide. Topics covered drug use more generally; prescription opioid use, NMPU, diversion; overdose awareness and responses;

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and possible interventions, including prescription monitoring, naloxone access, and drug treatment. Two questions specifically addressed law enforcement: How would you describe the interactions between police and drug users in this community? and What responsibility does law enforcement have in overdose prevention and response? The topic guide did not explicitly ask law enforcement about their jobs or attitudes toward drug users. Interviewees were recruited through recommendations by Community Advisory Board members and chain referral, wherein interviewees recommended further interviewees. Seven field interviewers were trained in qualitative interviewing methods, based on materials and techniques employed in prior rapid assessment and rapid policy assessment projects. The in-depth interviews were conducted with three groups of key informants representing: 1) individuals, such as chiefs of police, who could provide a sense of the "big picture" of prescription opioid abuse and overdose (noted as 'System' interviewees); 2) individuals with day-to-day professional contact with people using prescription opioids and at risk of overdose (noted as 'Interactor' interviewees); and 3) individuals who were not members of the other two groups and who were either using prescription opioids currently, or had personal experience with prescription opioid use. Data collection occurred over a 12-week period which was set according to the rapid assessment method, regardless of whether saturation in themes was reached. This paper represents a subanalysis of the 13 interviews with law enforcement agents of varying rank, who took part as the first or second key informant type noted above (i.e., System or Interactor, with interviewee numbered consecutively in the text that follows).

Interviews were recorded and transcribed. Through an iterative process, the research team developed a qualitative coding scheme which was applied to the interview transcripts. Themes were added as they emerged from the data, allowing for inductive analysis. Using NVivo, a qualitative data management software package (version 9, QSR International, Burlington, MA, USA), and Microsoft Word 2007 (Microsoft Corporation, Redmond, WA, USA), all interviews were coded independently by two members of the field team, with the principal investigator (TCG) checking for consistency. Thematic coding was undertaken by members of the research team (MR, SB, NZ, TCG), all of whom also conducted interviews in the field. Discrepancies in coding were resolved by consensus. The research team derived conclusions from coded transcripts. Demographics were collected at the level of state and interviewer type, not by profession, and are presented for all informants to protect their privacy. For similar reasons, quotes are not identified by race, gender, or rank. The study was approved by the Institutional Review Board at Rhode Island Hospital.

3. RESULTS

We collected 143 key informant interviews across the two states and three study sites; 13 interviews were conducted with law enforcement officials. The majority of all interviewees identified as White (90.8%) and not Hispanic (95%), and two-thirds were male. Law enforcement interviews from the study locations represented a range of experience: police chiefs (n=3), detectives (n=3), narcotics investigators (n=2), community policing officers (n=2), and patrol officers (n=3).

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3.1 The role of the police in preventing overdose death

All law enforcement interviewees reported responding to or investigating an overdose and the most common view (12 of 13 interviews) of overdose was, first and foremost, that of a medical emergency. The data revealed tensions expressed about the role of the police in medical emergencies such as an overdose. For example, one police chief described this as follows:

> ...you'll generally get a call, 'hey, I just came home, found my kid on the floor.' Or, 'Hey, my boyfriend is, is unconscious." So you respond, ambulance is on its way as well. And depending on whether CPR is necessary, or if it's just trying to get some vitals until the paramedics get there, um, and then you start, once, once the paramedics get there, then we can kind of take a step back and look around, and usually there's a pill bottle somewhere in the vicinity, or, 'hey, mom, what was, what medication is he on?' 'Well, he's not taking anything.' 'Okay, what medication are you on?' 'Well, I have these pain pills.' 'Well, can I see the bottle?' 'Oh my god, I had it filled last week, and it's empty!' You know, those types of things, or, often, it's the girlfriend or boyfriend saying, 'yeah, he's got a, you know, he's got a,' unless they're involved in it, too, 'he's got a pill problem. Here's what I think he's taken.' And then if we, you know, have to get a search warrant or consent to, to search around. But, first of all, to give the paramedics and the hospital an idea as to what may be in his system, so they can treat correctly. –System1

Participants saw first-hand the increased involvement of prescription opioid medications in diversion, drug-related crime and overdose. However, participants expressed that police have little power, save for arrest and investigation, to affect physician prescribing. Thus, they can only intervene in a criminal problem, but not to prevent the problem before it becomes criminal. For example, one officer, in reflecting upon sources of prescription opioids in the study community, said:

> I do elderly affairs, and that's like a social work position and then some. But I, I am in contact with doctors because, especially, to mention all the times, I'll say, "Listen, you know, Mary's not doing so well, when's her next appointment."... So now I call Dr. Brown, who prescribed 100 pills to little Mary, I'm gonna start telling Dr. Brown how to do their job? I think they should be regulated from somebody much higher than the police department. Why are these people getting hundreds of pills?-Interactor1

Officers felt there was little they could do to counsel drug users about their drug use; instead, arrest was viewed as the best tool to help them, as one police chief articulated:

> They get arrested. 'Why you arrest me?' 'Why you, why you doing this?' 'Well, I'm doing it, to try to get you off this. You try to get r-, you try to not, to go clean.' Can't do it. And you ask, you know, have they tried o-, but I'm not in their shoes, so I don't know what they've gone, I don't know what their life experiences have been, I don't know. It's easy for me to say, you know, but I, I'm not the, you know, we enforce the law. There's only so much we can, you, you try to counsel them, but some of 'em are just, like this woman I'm telling, I wouldn't, you know, 'hey, you

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> need to stop drinki-,' naw. It's like talking to the plant there. It's not gonna work.-System1

Officers reported frustration at being unable to help prevent overdoses, because of limited social and economic resources in the community. One officer said:

> You know, you try to offer help to people that you know are addicted and everything else. But again, there's not a lot of help out there. You know, there is, but you've got to pay for it. Now, even if you go to court, say, you get arrested. They find you with a couple bags of heroin. It's your first offense. Judge says, "All right. I'm gonna sentence you to...you have to get substance abuse evaluated. We're gonna test you. And you've got to, got to get yourself in a program."You, you've got to pay for that. If you don't have any money, how the hell are you gonna get in the program? So it, it's very frustrating sometimes.-Interactor2

Importantly, officers acknowledged a strong sense of duty to community and public safety, but were concerned about the added responsibility of trying to prevent overdoses. One officer articulated the tension between duty and the ability to be an effective agent of overdose prevention:

> ...that's frustrating, because I know a big part of our job in public protection is, you know, we arrest people, but, you know, we really are community caretakers and...every person that's in this police station went to an interview and they all said they want the job. Not to arrest people. Their job, they wanted to help people. That's what they said and I believe it.-Interactor3

3.2 A sense of futility

Despite intentions to help, many participants expressed an overwhelming sense of futility and helplessness; a key factor was the lack of effective treatment resources. This was best captured by a police chief who said,

> I've had a number of people call me crying. You know, "What are my alternatives?" And their biggest complaint is that they can't get treatment or that insurance plans won't cover it and it's cost-prohibited. And they just feel trapped. I don't have a solution for them. I mean, I...I can't solve [it] period. They can't get treatment, period. They can't get in the door. The programs are either short term, not covered by health insurance or people that don't have health insurance, you know, all the national problems, I listen to them all. They call desperate, looking for alternatives. And I give them the names of, you know, [closest private treatment center] and the hospitals and some of the programs..... But historically, the feedback I get is not good....They walk away unsatisfied.-System2

Existing training and resources in the community contributed to the sense of futility that upper management law enforcement acknowledged in the force. Two of three systems interviewees reflected similar comments to this police chief, who described:

> I know it's enormously frustrating for my staff. You know, they see some of these folks and have a sense of these (overdoses were) preventable. And the individuals fell right through the cracks of the so-called 'system' and they're frustrated by that.

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> And feeling somewhat helpless, you know, we...I think it's catch 22 for my staff because we're sending them to more and more training to identify these cases and try and ensure their survivability. And their part is the early intervention part. And they do everything we ask them to do and train them to do. And the patient dies through no fault of their own, but they get to go back and, and deal with the fallout.-System2

3.3. Empathy

Officers extended their sense of helplessness about the intractable drug problem and with addiction more generally, acknowledging a loss of empathy.

> Sometimes we look at things, um, we've lost a bit of that empathy, and it's, and it, it happens. It's, it, you know, we fight it, and we, we try to keep. And mostly g-, mostly officers are good that way. But sometimes it's very hard not to be cynical. Because you've been lied to, and seen so much of it over, over a career, that, um, now he's just a, now he's just a, one of those pill guys. You know? Don't trust him. He's on the pawn shops all the time, he's pawning his mother's, you know, whatever, um. I think society is a little more of a, not acceptance, but of sympathy. Because they're not out shooting heroin or smoking crack on the corner. They've got a pill problem. 'Oh, the poor kid, he had a car accident, and how he had these pills, and now he's addicted. The poor kid.' And we're like, 'yeah, but he's stealing your lawnmower. And, and your rings, and everything else, and robbing your neighbors, you know, he grew up next to, robbing, burglarizing their house.'-System1

However, officers seemed to differentiate between types of drug users. For instance, individuals who receive prescription medications for pain and who later become addicted garnered some empathy, in part, because these individuals were not perceived as being associated with illicit drug users. Law enforcement interviewees from all three sites shared similar, recent experiences to the emotional description from this police chief:

> ...we also had an employee that had a problem...he's no longer here. And it was really sad, because he was a good officer. And, ah, had an injury, prescription, doctor wasn't fully aware of how to, you know, once the need for it was over, what to do. Cut him off, just, you know, it doesn't work that way. You know, it, it doesn't work that way. You know, it just, it [went] downhill, I don't think it's any better now. It's been, he's been gone five or six years, moved to another state. And came in to see me, we ende-, it ended on bad terms, we had to, ah, terminate. Um. Came in to see me, before he left to another state. And, ah, hadn't changed. And it was, it was kind of sad. I said, 'Well, it's not going to.' –System 1

Another officer further illustrated this difference when describing NMPU by colleagues.

> We've had that pretty close to home...People are calling other people that they know are on the pills and asking them, you know, for them... And it's not something that everyone discusses. It may be because it hits some, you know, because it does affect so many people on a personal level. It's not something that, you know, you know, officers discuss at roll call.-Interactor3

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In general, chronic pain patients who became non-medical prescription opioid users were perceived by several officers as victims of the medical system, and generated a sympathetic response:

> We have made arrests here in town of some municipal employees who were prescribed these sorts of drugs and six months later, were buying them on street corners. And ultimately, engaged in things to support, you know, to, to come up with revenue in order to support that habit. And they came to our attention, were arrested, subsequently lost their jobs. A lot of them lost their families, their homes. And they had up until the time when they were first prescribed not considered problem employees. They weren't abusers of sick time. They were productive people. Families, kids and...they got hurt on the job and they start-...they started taking this stuff under the guidance of some doctor. And the next thing you know, they're looped off of, of these. And now, the doctor is telling them, "You can go back to work." but they don't wanna give up the drug. We, we saw a couple of them selling town property, basically, in a black market in order to come up with money to buy pills on street corners in [study site].-System2

In contrast, officers reported a loss of empathy related to those perceived as illicit "drug abusers". One officer commented:

> I don't have much sympathy.... for individuals that are drug abusers, and what they do to their families and the economy, I suppose. –Interactor4

3.4 Carrying the tools of prevention: Naloxone

Naloxone is a medication typically carried and administered by paramedics, although there is growing interest in equipping law enforcement with naloxone. At present, law enforcement officers in our study sites are not permitted to administer naloxone in an overdose situation.

One supervising officer cited the legal barriers to carrying naloxone, saying:

> I know I don't want my officers giving people shots and pills. We get sued for enough stuff. Let people with some health training issue that. But I, I think first responders is, is always a good option. At least, something that gets them, you know, for the 10 minutes they're gonna take to get to a hospital where, you know, the super-trained staff can take over from there.-Interactor5

Another officer conveyed, in a tone of frustration, the limits of law enforcement's current role in an overdose occurring in his community:

> There's nothing really more you can do, you know? It's not really... you go to, you try to do whatever first aid that you can. But, you know, by law, you're not, we can't carry Narcan [the brand name of naloxone]. *You can't do anything like that. – Interactor2*

Law enforcement in our study sample expressed concern, similar to what has been documented elsewhere (Beletsky et al., 2009; Burris et al., 2009), about the kind of message

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communicated by allowing drug users to carry and administer naloxone to overdosing victims. As one officer stated:

> I think it's a ‘get out of jail free’ card, 'cause if you take the Narcan, “Oh, you know what? Hey, I screwed up and I fell off the wagon. Let me just take the Narcan and I'll start over again. It gives them a way out.-Interactor6

While attitudes toward naloxone differed according to whether users were perceived to be “legitimate” pain patients or illicit drug users, empathy for the victim's family and experiential knowledge of the overdose scene provided an alternative basis for naloxone support, as one police chief articulated:

> Respondent: I think the difference there is, you're, again, you know, certainly not through rose-colored glasses, the cynicism, we're, we would be counting on, on maybe addicts to help out other addicts.
>
> Interviewer: Or pain patients, or, or parents, or,...
>
> Respondent: Well, no, y-, y-, you know, let's differentiate. If there are, um, people legitimately taking, I have no problem with that. It makes sense to me. Because you c-, but, you know, and I gue-, I suppose if I'm, I'm a parent, and my kid is 40 and I, they're just, you know, I suppose that would be a, a good thing. You know, I suppose that would be a good, if I think about it, you know if there's no, if I've tried every other, you know, ‘listen, there's just, we're just hoping and praying every day that this kid, this man or this woman, comes to grips with this and decides to fix it, but in the meantime, let's have something on hand just in case we come home to this nightmare.’ ?-System1

3.5 Training and suggestions for how to involve law enforcement in overdose prevention and response

Several suggestions for interventions emerged from the law enforcement interviews, including specialized training in recognizing and responding to drug overdose for active officers, or more comprehensive curriculum for law enforcement training academies on overdose and addiction. One officer voiced concerns:

> The unfortunate thing is police are so taxed with so many issues now that, you know, behavioral and, and people wanna, “Oh, we wanna train you on autism. Oh, no, elderly dementia.” It's so much to absorb and I feel, I kinda feel that here again, they've identified something else that's a serious, you know, is-...issue, an epidemic [pain pill abuse and overdose] and...well, how much can we, you know, how many signs and symptoms and pills and diagnosis and prognosis and, you know, how much can we know and be effective in, in, in trying to, to do the right thing?-Interactor3

By far the most common law enforcement interventions mentioned by officers were prescription drug take-back days, organized by the Drug Enforcement Agency (DEA), and DEA-approved medication drop-boxes installed at police departments (mentioned by 11 of 13 law enforcement interviewees).

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However, this approach was not without drawbacks, as this officer pointed out:

> People don't like the police....So they're not gonna, like, we did the...take back program with pills. And...through DEA, we had set up, well, they... they registered the police department as the location, and I said, “Well first of all, we're not a really good location...we are at the center of town, but we're not handicapped,100% accessible, and just, you have to park on the main street, get out of the car, almost get hit by a car, so, I put one location at the senior center, and figured people would be more apt to come in and drop off pills.-Interactor1

One officer envisioned a possible law enforcement protocol for talking with survivors and witnesses of drug overdose. He described a training that could build a relationship between overdose incident, victim, and community follow-up, with the dual goal of overdose prevention and improving community police relations:

> And again, you're not there to arrest the person, but yet, recognizing that you may take it a step further, maybe follow up at the hospital with the person and have a talk with them. Give them some referral information. Now, we would know who to refer him to at this point. So that's part of the police educations. Signs, symptoms, referral, post-incident follow up would be key so that if, you know, we do recognize that the person potentially overdosed, yeah, they're released from the hospital a couple days later. If the officer had some sense of what to do on that follow up visit...that may have an impact. So that may be the, the catalyst, if you will to open the door to that. And not to mention, you know, it's good police relations overall.-Interactor3

Framing any law enforcement intervention regarding NMPU and overdose with a personal message is critical. The officer continues:

> How many officers would be apt to do that? Well, the more training they have...and this type of drug, these type of drugs, don't forget, it's, it's not just the criminal element. It's because it's your neighbor. It could be your sister. It could be your family member. I think any time it can be personal and the officer can associate it with their own life and family, they'll tend to be more compassionate and follow up and, you know, and, and sort of have some ownership of, of the issue and talk to the person.-Interactor3

4. DISCUSSION

Our data suggest law enforcement officers are empathetic to the health problem of overdose. However, some officers may feel conflicted about their role in protecting public safety through enforcement of laws aimed to reduce the supply of drugs in communities. Views on law enforcement preventing overdose fatalities were complex but generally fit within activities associated with the concepts of community policing and good police relations. Importantly, respondents in our study sample indicated a desire to be more involved in overdose prevention and response, suggesting the potential for broader law enforcement engagement around this pressing public health crisis, even in suburban and small town

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locations like our study sites, where prescription opioid overdose deaths are increasing (Green et al., 2010; Paulozzi and Xi, 2008).

One identified theme for law enforcement was that of helplessness to effect change in their community on issues of addiction and overdose. This suggests that many police and other law enforcement believe that they are ill-equipped to deal with these issues. While training and education are important to help address shortfalls, lack of treatment resources in the community and legal and policy barriers to officers carrying naloxone are more salient challenges to increased involvement in overdose prevention and response within the law enforcement community. However, there is strong precedent for police officer involvement in medical emergencies, particularly with automated external defibrillators (AEDs), in the pre-hospital setting. Hawkins et al. randomly sampled police agencies across the United States and found that among the 420 responding police agencies (53% of the total number surveyed) , 80% reported responding to medical emergencies and 39% reported carrying AEDs (Hawkins et al., 2007). Furthermore, across all responding agencies, those with and without AEDs, nearly half (47.7%) reported that their officers were trained in both cardiopulmonary resuscitation (CPR) and first aid. Interestingly, this same study found that among agencies with AEDs, the role of officers prior to EMS arrival was to provide initial medical care (73.2% of responding agencies) rather than scene control or law enforcement (Hawkins et al., 2007). An earlier study among a sample of police officers in Indiana found that 57% of respondents indicated that use of an AED would not interfere with an officer's law enforcement duties (Groh et al., 2002). Compared to officers lacking such training or experience, officers trained in AED use or who had performed CPR while on duty were more likely to indicate use of AEDs as being needed in their communities (Groh et al., 2002). Considering how commonly drug-involved overdose scenes, compared to cardiac arrhythmias, are responded to by law enforcement, training officers to recognize opioid overdose and administer naloxone follow an indicated and established pattern of law enforcement medical intervention that promote community safety. Future work should also explore how police unions regard police engagement in direct overdose reversal services. Efforts to expand overdose education and awareness-raising in populations that often come into contact with law enforcement entities (e.g., individuals on probation and parole) provide additional opportunities for prevention and another mechanism for engaging law enforcement in public health.

Another contributing factor to the feelings of futility that law enforcement expressed in our study, albeit to a lesser extent, was the notion that police have little to no influence over prescribing practices. Interviewees in our sample expressed frustration at the seeming lack of training that many prescribing physicians in the community have with respect to safe prescribing of opioid medications. Further, law enforcement activities tend to be reactive and enforcement focused regarding diversion of prescription medications. They generally are not able to exert significant influence to prevent diversion, particularly in the cases of physicians over-prescribing or prescribers being taken advantage of by patients engaged in ‘doctor shopping.’ Prescribers tend not to involve law enforcement when they suspect their patient is diverting or ‘doctor shopping,’ even when presented questionable data from a prescription monitoring program patient report (Green et al., 2012). “Burnout,” physical stress, and poor job satisfaction are well established nemeses of employment stability and

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health for police, which have been shown to be more pronounced problems in small agencies (i.e., cities or counties with less than 100,000 population, as in our study sites) than larger agencies (in cities or counties with more than 250,000; McCarty et al., 2011). It is unclear the extent to which the stresses and repeated frustrations identified in this study contribute to overall job satisfaction and other occupational strains for law enforcement officers in the study sites. Future research could address this line of inquiry. Occupational burnout may be one reason that training and equipping officers to respond to overdose may be of interest to law enforcement management, particularly to avoid high turnover, which is a perennial concern in police departments.

Law enforcement officers in our sample differentiated between types of opioid users. Many respondents expressed different views depending on if they felt they were talking about someone with a 'legitimate prescription' compared with someone perceived as an 'addict' who may have acquired opioids illegally. While not a clear distinction, this may in part be seen as an extension of the 'risk environment' among PWID (Burris et al., 2004; Green et al., 2009), wherein the influence of policy and policing practices effect helpseeking, risk behaviors, and, ultimately, health outcomes of users. Briefly, this conceptual framework views law enforcement and the enforcement of laws as ecological causes of risk, given that police have significant flexibility with respect to the application of various criminal and public order laws (Burris et al., 2004). To the extent that these laws are differentially applied to perceived 'addicts' and 'legitimate patients,' overdose risk may be exacerbated. For example, law enforcement practices have been known to influence injection network dynamics (Burris et al., 2004; Cooper et al., 2005; Friedman et al., 2006) and may exert similar influences among users of illicitly obtained prescription opioids. As more states across the country adopt Good Samaritan legislation (Davis, 2012; Davis et al., 2013; UW Alcohol and Drug Abuse Instititute, 2012), the impetus of such laws will necessarily place less emphasis on differentiation between individuals suffering from an opioid overdose who obtained the medications illicitly or through a valid prescription. In this way, Good Samaritan laws convey normative messaging about the importance of saving overdose victims' lives, whether opioid use is illicit or licit. Such norms can then be integrated into policing institutions as part of trainings, standard operating procedures, and incentive metrics. Additionally, several respondents indicated that the line between licit and illicit prescription drug users was further blurred when referencing a fellow officer with an addiction to prescription opioid medications. Such instances foster empathy and may provide an opportunity to educate about overdose prevention and response using naloxone, in order to understand how to protect a colleague.

There are important limitations to this study. Job satisfaction and attitudes toward drug users were identified as emergent themes but were not the focus of the interviews from which the data were extracted. Therefore, standardized questions about these topics were not consistently asked of participants. Second, any instances of addiction, overdose experiences or witnessed overdoses among law enforcement were spontaneously reported; we did not specifically recruit officers with personal experience with addiction. Third, the number of law enforcement interviews for this study was small and covered a wide range of professional experience. On the scale of the small town or suburban area, the sample reached saturation and may be considered highly representative. However, qualitative data

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such as those included in the RARx Study, may not generalize to other locations, nor are they static over time. We purposely did not collect demographics on the respondents, as at the small town level such information would be identifying.

In conclusion, there are many ways for law enforcement to be involved in promoting public safety, including engaging in fatal overdose prevention or response activities. Law enforcement commonly serve as medical first responders yet, within the law enforcement community, there is a lack of clarity as to what police can do and what they *should* do at the scene of an overdose. In many cases, officers cannot relinquish their law enforcement role at the scene, and it may be unrealistic for them to do so. A recent US district court ruling in Rhode Island challenges these operations. The decision clarifies that police trained in CPR have a duty to use it, immunizes police for ordinary negligence in giving CPR to someone under custody, and clarifies that police are liable for gross negligence in performing or failing to perform CPR (National Police Accountability Project, 2012). Such legal precedent can provide guidance to local and state policy makers considering equipping all first responders with naloxone.

However, it is important to consider the possibility that duties which may expose officers to liability could act as a disincentive for agencies to train their personnel. Future evaluations could assess the effectiveness of different ways of framing messages in overdose interventions for law enforcement. Our data suggest that law enforcement, especially in small town and suburban locations, are willing to be partners in training and education around overdose awareness, prevention and response, possibly including the administration of naloxone as a first responder. Overdose prevention and response may have greater impact if framed as extensions of existing law enforcement and public safety efforts. Future programming and intervention evaluations should examine community based overdose prevention and law enforcement, including the short- and long-term effects of law and policy changes to protect overdose witnesses calling 911(Banta-Green et al., 2013) and permitting law enforcement to carry and use naloxone.

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REFERENCES

Banta-Green CJ, Beletsky L, Schoeppe JA, Coffin PO, Kuszler PC. Police officers' and paramedics' experiences with overdose and their knowledge and opinions of Washington State's Drug Overdose-Naloxone-Good Samaritan Law. J. Urban Health. 2013 epub ahead of print.

Beletsky L, Agrawal A, Moreau B, Kumar P, Weiss-Laxer N, Heimer R. Police training to align law enforcement and HIV prevention: preliminary evidence from the field. Am. J. Public Health. 2011; 101:2012–2015. [PubMed: 21940924]

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Beletsky, L.; Burris, S.; Kral, A. Closing death's Door: Action Steps to Facilitate Emergency Opioid Drug Overdose Reversal in the U.S. The Center for Health Law, Politics and Policy, Temple University Beasley School of Law; Philadelphia: 2009.

Beletsky L, Macalino GE, Burris S. Attitudes of police officers towards syringe access, occupational needle-sticks, and drug use: a qualitative study of one city police department in the United States. Intl. J. Drug Policy. 2005; 16:267–274.

Beletsky L, Ruthazer R, Macalino GE, Rich JD, Tan L, Burris S. Physicians' knowledge of and willingness to prescribe naloxone to reverse accidental opiate overdose: challenges and opportunities. J. Urban Health. 2007; 84:126–136. [PubMed: 17146712]

Beyer L, Crofts N, Reid G. Drug offending and criminal justice responses: practitioners' perspectives. Intl. J. Drug Policy. 2002; 13:203–211.

Binswanger IA, Stern MF, Deyo RA, Heagerty PJ, Cheadle A, Elmore JG, Koepsell TD. Release from prison--a high risk of death for former inmates. N. Engl. J. Med. 2007; 356:157–165. [PubMed: 17215533]

Bohnert AS, Nandi A, Tracy M, Cerda M, Tardiff KJ, Vlahov D, Galea S. Policing and risk of overdose mortality in urban neighborhoods. Drug Alcohol Depend. 2011; 113:62–68. [PubMed: 20727684]

Braga, K.; Weisburd, DL. Policing Innovation and Crime Prevention: Lessons Learned from Police Research Over the Past 20 years. Nationa Institute of Justice Policing Research Workshop; Planning for the Future; Washington, DC: 2007.

Burris S, Beletsky L, Castagna CA, Coyle C, Crowe C, McLaughlin JM. Stopping an invisible epidemic: legal issues in the provision of naloxone to prevent opioid overdose. Drexel Law Rev. 2009; 1:273–340.

Burris S, Blankenship KM, Donoghoe M, Sherman S, Vernick JS, Case P, Lazzarini Z, Koester S. Addressing the "risk environment" for injection drug users: the mysterious case of the missing cop. Milbank Q. 2004; 82:125–156. [PubMed: 15016246]

Centers for Disease Control and Prevention. [October 15 2012] Poisoning In the United States: Fact Sheet. 2011a. http://www.cdc.gov/homeandrecreationalsafety/poisoning/poisoning-factsheet.htm.

Centers for Disease Control and Prevention. Prescription Painkiller Overdoses in the US Vital Signs. 2011b. http://www.cdc.gov/vitalsigns/MethadoneOverdoses/.accessed on

Centers for Disease Control and Prevention. CDC grand rounds: prescription drug overdoses - a U.S. epidemic. MMWR. 2012; 61:10–13.

Chappell AT, MacDonald JM, Manz PW. The organizational determinants of police arrest decisions. Crime Delinq. 2006; 52:287–306.

Compton WM, Volkow ND. Major increases in opioid analgesic abuse in the United States: concerns and strategies. Drug Alcohol Depend. 2006; 81:103–107. [PubMed: 16023304]

Cooper H, Moore L, Gruskin S, Krieger N. The impact of a police drug crackdown on drug injectors' ability to practice harm reduction: a qualitative study. Soc. Sci. Med. 2005; 61:673–684. [PubMed: 15899325]

Cooper HL, Des Jarlais DC, Tempalski B, Bossak BH, Ross Z, Friedman SR. Drug-related arrest rates and spatial access to syringe exchange programs in New York City health districts: combined effects on the risk of injection-related infections among injectors. Health Place. 2012; 18:218–228. [PubMed: 22047790]

Darke S, Ross J, Zador D, Sunjic S. Heroin-related deaths in New South Wales, Australia, 1992-1996. Drug Alcohol Depend. 2000; 60:141–150. [PubMed: 10940541]

Davis, C.; Chang, S. The Network for Public Health Law. Robert Wood Johnson Foundation; 2012. Legal Interventions to Reduce Overdose Mortality: Naloxone Access and Overdose Good Samaritan Laws..

Davis C, Webb D, Burris S. Changing law from barrier to facilitator of opioid overdose prevention. J. Law Med. Ethics 41 Suppl. 2013; 1:33–36.

Davis CS, Beletsky L. Bundling occupational safety with harm reduction information as a feasible method for improving police receptiveness to syringe access programs: evidence from three U.S. cities. Harm Reduct. J. 2009; 6:16. [PubMed: 19602236]

Author Manuscript Author Manuscript Author Manuscript Author Manuscript

DeBeck K, Wood E, Zhang R, Tyndall M, Montaner J, Kerr T. Police and public health partnerships: evidence from the evaluation of Vancouver's supervised injection facility. Subst. Abuse Treat. Prev. Policy. 2008; 3:11. [PubMed: 18462491]

Friedman SR, Cooper HL, Tempalski B, Keem M, Friedman R, Flom PL, Des Jarlais DC. Relationships of deterrence and law enforcement to drug-related harms among drug injectors in US metropolitan areas. AIDS. 2006; 20:93–99. [PubMed: 16327324]

Friedman SR, Pouget ER, Chatterjee S, Cleland CM, Tempalski B, Brady JE, Cooper HL. Drug arrests and injection drug deterrence. Am. J. Public Health. 2011; 101:344–349. [PubMed: 21164088]

Geller A, Fagan J. Pot as pretext: marijuana, race, and the new disorder in New York City street policing. J. Empir. Leg. Stud. 2010; 7:591–633.

Goldstein H. Improving policing: a problem-oriented approach. Crime Delinq. 1979; 25:236–258.

Green TC, Bowman SE, Ray M, Zaller N, Heimer R, Case P. Collaboration or coercion? Partnering to divert prescription opioid medications. J. Urban Health. 2013 epub ahead of print.

Green TC, Grau LE, Blinnikova KN, Torban M, Krupitsky E, Ilyuk R, Kozlov A, Heimer R. Social and structural aspects of the overdose risk environment in St. Petersburg, Russia. Intl. J. Drug Policy. 2009; 20:270–276.

Green TC, Grau LE, Carver HW, Kinzly M, Heimer R. Epidemiologic trends and geographic patterns of fatal opioid intoxications in Connecticut, USA: 1997-2007. Drug Alcohol Depend. 2010; 115:221–228. [PubMed: 21131140]

Green TC, Mann MR, Bowman SE, Zaller N, Soto X, Gadea J, Cordy C, Kelly P, Friedmann PD. How does use of a prescription monitoring program change medical practice? Pain Med. 2012; 13:1314–1323. [PubMed: 22845339]

Groh WJ, Lowe MR, Overgaard AD, Neal JM, Fishburn WC, Zipes DP. Attitudes of law enforcement officers regarding automated external defibrillators. Acad. Emerg. Med. 2002; 9:751–753. [PubMed: 12093718]

Hawkins SC, Shapiro AH, Sever AE, Delbridge TR, Mosesso VN. The role of law enforcement agencies in out-of-hospital emergency care. Resuscitation. 2007; 72:386–393. [PubMed: 17156910]

Jardine M, Crofts N, Monaghan G, Morrow M. Harm reduction and law enforcement in Vietnam: influences on street policing. Harm Reduct. J. 2012; 9:27. [PubMed: 22769590]

Kennedy, DM.; Wong, S. The High Point Drug Market Intervention Strategy. Center for Crime Prevention and Control, John Jay College of Criminal Justice; New York: 2012.

Kerilowske, G. A Public Health Approach to Overdose Prevention. Director's remarks at project Lazarus. Wilkes County; North Carolina: 2012.

Kerr T, Small W, Wood E. The public health and social impacts of drug market enforcement: a review of the evidence. Intl. J. Drug Policy. 2005; 16:210–220.

McCarty, WP.; Schuck, A.; Skogan, W.; Rosenbaum, D. Stress, Burnout, and Health. National Institute of Justice, National Police Research Platform; Washington, DC: 2011.

McDonald, PP. Managing Police Operations: Implementing the NYPD Crime Control Model Using COMPSTAT. Waadsworth, Cengage Learning; Belmont, CA: 2001.

Moore, M.; Sparrow, M.; Spelman, W. Innovations in policing: from production lines to jobs shops.. In: Altshuler, A.; Ben, RD., editors. Innovation in American Government: Challenges, Opportunities, and Dilemmas. Brookings Institute Press; Washington, DC: 1997. p. 274-298.

Morabito MS, Watson A, Draine J. Police officer acceptance of new innovation: the case of crisis intervention teams. Policing: An International Journal of Police Strategies Management. 2013; 36:421–436.

National Association of Boards of Pharmacy. [October 15 2012] Federal legislation aims to reduce drug overdose deaths. 2012. http://www.nabp.net/news/federal-legislation-aims-to-reduce-drug-overdose-deaths/

National Association of Drug Diversion Investigators. [November 15 2012] NADDI supports nasal naloxone. 2012. http://www.naddi.org.

National Police Accountability Project. [June 5, 2013] US District Court Upholds Citizen's Fundamental Right to Walk Away From Police. 2012. http://www.nlg-npap.org/news/us-district-court-upholds-citizens-fundamental-right-walk-away-police.

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Newman MM, Mosesso VN Jr. Ornato JP, Paris PM. Law enforcement agency defibrillation: position statement and best practices recommendations from the National Center for Early Defibrillation. Resuscitation. 2002; 54:11–14. [PubMed: 12104103]

Office of National Drug Control Policy. Epidemic: Responding to America's Prescription Drug Abuse Crisis. Executive Office of the President of the United States; Washington, DC: 2011.

Office of National Drug Control Policy. National Drug Control Strategy. Executive Office of the President of the United States; Washington DC: 2012.

Paulozzi LJ, Xi Y. Recent changes in drug poisoning mortality in the United States by urban-rural status and by drug type. Pharmacoepidemiol. Drug Saf. 2008; 17:997–1005. [PubMed: 18512264]

Pollini RA, McCall L, Mehta SH, Vlahov D, Strathdee SA. Non-fatal overdose and subsequent drug treatment among injection drug users. Drug Alcohol Depend. 2006; 83:104–110. [PubMed: 16310322]

Rhodes T. The ‘risk environment’: a framework for understanding and reducing drug-related harm. Intl. J. Drug Policy. 2002; 13:85–94.

Rhodes T, Platt L, Sarang A, Vlasov A, Mikhailova L, Monaghan G. Street policing, injecting drug use and harm reduction in a Russian city: a qualitative study of police perspectives. J. Urban Health. 2006; 83:911–925. [PubMed: 16855880]

Rivers L, Norris A, McGarrell EF. Mental model of the drug market intervention. J. Drug Issues. 2012; 42:59–81.

Schaefer Morabito M. Understanding community policing as an innovation: patterns of adoption. Crime Delinq. 2010; 56:564–587.

Sherman SG, Cheng Y, Kral AH. Prevalence and correlates of opiate overdose among young injection drug users in a large U.S. city. Drug Alcohol Depend. 2007; 88:182–187. [PubMed: 17110058]

Silverman B, Davis CS, Graff J, Bhatti U, Santos M, Beletsky L. Harmonizing disease prevention and police practice in the implementation of HIV prevention programs: up-stream strategies from Wilmington, Delaware. Harm Reduct. J. 2012; 9:17. [PubMed: 22591836]

Small W, Krusi A, Wood E, Montaner J, Kerr T. Street-level policing in the Downtown Eastside of Vancouver, Canada, during the 2010 Winter Olympics. Int. J. Drug Policy. 2012; 23:128–133. [PubMed: 21885271]

Tobin KE, Davey MA, Latkin CA. Calling emergency medical services during drug overdose: an examination of individual, social and setting correlates. Addiction. 2005; 100:397–404. [PubMed: 15733253]

Tracy M, Piper TM, Ompad D, Bucciarelli A, Coffin PO, Vlahov D, Galea S. Circumstances of witnessed drug overdose in New York City: implications for intervention. Drug Alcohol Depend. 2005; 79:181–190. [PubMed: 16002027]

UW Alcohol Drug Abuse Instititute. [October, 17 2012] STOP OVERDOSE DEATHS! Washington State's New “911 Good Samaritan” Law Web site. 2012. http://stopoverdose.org/.

Walker, S. Taming the System: The Control of Discretion in Criminal Justice: 1950-1990. Oxford University Press; New York: 1993.

Weisburd D, Mastrofski SD, McNally AM, Greenspan R, Willis JJ. Reforming to preserve: COMPSTAT and strategic problem solving in American policing. Criminology Public Policy. 2003; 2:421–456.

Willis JJ, Mastrofski S, Weisburd D. Compstat and bureaucracy: a case study of challenges and opportunities for change. Justice Q. 2004; 21

Wood, J.; Swanson, J.; Burris, S.; Gilbert, A. Police Interventions with Persons Affected by Mental Illnesses: A Critical Review of Global Thinking and Practice. Center for Behavioral Health Services and Criminal Justice Research, Rutgers University; New Jersey: 2011.