HHS Public Access

Author manuscript

Eval Program Plann. Author manuscript; available in PMC 2023 June 01.

Published in final edited form as:

Eval Program Plann. 2023 June ; 98: 102275. doi:10.1016/j.evalprogplan.2023.102275.

NYC RxStat: Stakeholder perspectives on a national model public health and public safety partnership to reduce overdose deaths

Bennett Allen[a,*], **Adelya Urmanche**[b]

[a] *Center for Opioid Epidemiology and Policy, Department of Population Health, New York University Grossman School of Medicine, United States*

[b] *Department of Psychiatry, Mount Sinai Beth Israel, United States*

Abstract

NYC RxStat, the United States' first public health and public safety partnership aiming to reduce overdose deaths, began in 2012 and established a national model for cross-sector partnerships. The partnership aimed to integrate data-driven policing with actionable public health interventions and surveillance to develop and implement cross-sector overdose responses. With federal support, jurisdictions nationally have implemented public health and public safety partnerships modeled on RxStat. To inform partnership replication efforts, we conducted a stakeholder evaluation of RxStat. We conducted in-depth, semi-structured interviews with 25 current and former RxStat stakeholders. Interviews probed stakeholder perceptions of RxStat's successes, challenges, and opportunities for growth. Interview data were iteratively coded and thematically analyzed. Stakeholders reported certainty about the need for cross-sector collaboration and described cross-disciplinary tensions, challenges to collaboration and implementation, and opportunities for partnership optimization and growth. Findings informed 12 strategies to improve RxStat and partnerships in its model, organized into three opportunity areas: (1) ensure stakeholder and agency accountability; (2) build secure and mutually beneficial data systems; and (3) structure partnerships to facilitate equitable collaboration. Cross-sector partnerships offer a promising strategy to integrate the public health and safety sectors, but disciplinary tensions in approach may hamper implementation. Findings can inform efforts to implement and scale cross-sector partnerships.

[*]Correspondence to: Center for Opioid Epidemiology and Policy, Department of Population Health, New York University Grossman School of Medicine, 180 Madison Avenue, 4th Floor, New York, NY 10016, United States. bennett.allen@nyulangone.org (B. Allen).

Conflict of interest

The authors report no conflicts of interest.

Ethical approval

All study procedures were approved by the New York City Department of Health and Mental Hygiene Institutional Review Board.

CRediT authorship contribution statement

Bennett Allen: Conceptualization, Methodology, Formal analysis, Writing – original draft, Supervision, Project administration.
Adelya Urmanche: Methodology, Formal analysis, Investigation, Writing – review & editing, Project administration.

Appendix A

See Table A1.

Keywords

Public health; Public safety; Cross-sector partnership; Overdose prevention

1. Introduction

Overdose deaths in New York City (NYC) more than tripled between 2000 and 2021, (Askari et al., 2023) mirroring the epidemic across the United States (US) (Spencer et al., 2022). Since 2014–2015, fentanyl, a highly potent synthetic opioid, has driven the increases in overdose death nationally and in NYC, (Colon-Berezin et al., 2019) with precipitous increases among Black and Latinx populations (Allen et al., 2019; Wilson et al., 2020). Likewise, the COVID-19 pandemic compounded the harms of the overdose epidemic and accelerated mortality (Cartus et al., 2022). Recent increases in stimulant- and fentanyl-involved overdose deaths in the time during and since the COVID-19 pandemic have led some researchers to identify a "fourth wave" of the overdose epidemic centered on polysubstance overdose (Ciccarone & Shoptaw, 2022). In 2021, 2668 New Yorkers died from overdose, the highest number since records began in 2000, and a 27% increase from 2020 (Askari et al., 2023).

Since 2012, overdose prevention has been a cornerstone of NYC's health and safety policy (Office of the Mayor of the City of New York, 2017). Local-level initiatives have included: expanded naloxone distribution in community, pharmacy, harm reduction, law enforcement, and social service settings (Dolatshahi et al., 2019); access to low-threshold buprenorphine treatment for opioid use disorder (Kaplan-Dobbs et al., 2021); targeted public awareness regarding the risks of fentanyl (Allen et al., 2020); and enhanced investigation and enforcement of overdose scenes (Goodman, 2018). In addition to programmatic interventions, in 2012 NYC established the NYC RxStat initiative (referred to hereafter as RxStat), the US's first public health and public safety partnership (PHPSP) implemented as a key strategy to reduce overdose deaths (Heller et al., 2014).

1.1. NYC RxStat: a national model public health and public safety partnership

While primarily a local-level strategy, RxStat engages and leverages the capacities of state and federal authorities in addition to local government agencies. As a partnership, RxStat aims to integrate data-driven policing with actionable public health interventions and data (Heller et al., 2014). With respect to the analysis of disparate data sources and implementation of collaborative programming, RxStat aimed to adhere to a public health framework, with interventions focused at the population level and analyses conducted using epidemiologic methods (Heller et al., 2014). RxStat was formed and convenes voluntarily; the group is not guided by a policy or legislative mandate, nor is membership and attendance mandated within agencies. As an intervention, RxStat has not remained static, but has evolved alongside the overdose epidemic (Table 1).

The partnership was founded as an intergovernmental data-sharing vehicle and part of the Bloomberg Administration's Mayoral Task Force on Prescription Painkiller Abuse. After the 2013 mayoral transition to the de Blasio Administration, Task Force members voluntarily

formalized into the NYC RxStat Workgroup and continued to meet monthly under the joint leadership of the NYC Department of Health and Mental Hygiene (DOHMH) and New York/New Jersey High Intensity Drug Trafficking Area (NY/NJ HIDTA). To focus cross-sector response and coordination, the partnership expanded in 2016 to include the NYC RxStat Operations Group, which convened quarterly overdose fatality reviews to identify cross-agency touchpoints and service gaps. As of December 2021, RxStat comprised 38 local, state, and federal member agencies (Table A1).

Since RxStat's inception, it has received support from the Office of National Drug Control Policy (ONDCP) and Bureau of Justice Assistance (BJA) (High Intensity Drug Trafficking Area Program, 2020). The Centers for Disease Control and Prevention (CDC) has elevated RxStat as the template for jurisdictions seeking to integrate overdose response across the health and safety sectors (Centers for Disease Control and Prevention, 2022). To scale the RxStat model, the CDC Foundation developed a public health and safety toolkit to guide state and local PHPSP implementation (Rubel & Roe, 2022). Likewise, through its Overdose Data to Action (OD2A) program, the CDC has made substantial national investments in PHPSPs, recognizing their potential to address the overdose epidemic by bridging knowledge, data, and service gaps (Centers for Disease Control and Prevention, 2022).

1.2. Defining public health and public safety

Given the differences in approach between public health and public safety, a shared understanding of the sectors is necessary to structure responses. Public health, as conventionally defined, is the practice of protecting and improving the health of a given population (El-Sayed, 2016). An expansive definition may include public functions that touch social determinants of health—e.g., housing and homeless services, public space and recreation, and social benefits and food access services—in addition to the healthcare sector. Interventions often are guided by epidemiology, the science of population patterns of disease (Windle et al., 2019). The size of the population notwithstanding, a public health approach prioritizes population-level prevention, education, and service delivery over individually focused approaches.

Public safety, as conventionally defined, is the practice of protecting against threats to the wellbeing of individuals and communities (Friedman, 2022). Public safety includes law enforcement and criminal justice authorities, as well as non-enforcement first responders such as emergency medical services and fire response. Public safety actors inform interventions using both case-level intelligence and population-level trends in crime and enforcement. Public safety interventions generally are executed at the individual level and prioritize enforcement, service linkage, and emergency response over preventive approaches.

Given the operational differences between public health and safety, US drug policy traditionally has occurred in parallel with little integration or collaboration (Saloner et al., 2018). Some researchers have identified areas of overlap and collaboration, (Shepherd & Sumner, 2017) which share the goals to promote public wellbeing and reduce overdose deaths. Others have suggested that such partnerships may have unintended consequences with respect to increased criminalization of overdose and residual negative impacts on health

(Allen et al., 2021). As such, the integration of health and safety for overdose response remains a policy experiment.

Despite the innovation of RxStat and national proliferation of PHPSPs, however, no prior research has assessed PHPSP implementation in any jurisdiction. To fill this gap and inform national replication efforts, we conducted a qualitative stakeholder evaluation of RxStat to identify successes, challenges, and opportunities for growth. Ours is the first empirical study of a PHPSP in the US and reports on RxStat, the US's first and national model PHPSP.

2. Methods

2.1. Design and sample

This study probed the experiences and perspectives of RxStat members across agencies, disciplines, and levels of government. Between April and November 2021, in-depth interviews were conducted with 25 current and former RxStat members. At the time the study was conducted, 38 agencies participated in RxStat. Stakeholders were purposively sampled based on their involvement in RxStat (i.e., leadership roles and attendance frequency), the level of government with which they were affiliated as part of RxStat (i.e., local, state, or federal), and the discipline of the agency with which they were affiliated (i.e., public health, public safety, social and human services, or clinical medicine) (Patton, 2002). Potential stakeholders were solicited by email and provided a short description of the evaluation's aims and purpose. We contacted 31 stakeholders, and 25 agreed to participate, yielding an 81% response rate. Stakeholders received no compensation for their time and are identified only by professional discipline. All study procedures were approved by the [BLINDED] Institutional Review Board.

2.2. Data collection and analysis

Interviews were semi-structured and captured the following domains: perceptions of RxStat, including its purpose and goals; policy and programmatic successes of RxStat, including agency-level, policy, and interpersonal outcomes; challenges to cross-disciplinary engagement, including strategies to overcome areas of tension; and the use of data across sectors, including issues of data sharing, data access, and data interpretation and communication. The interview guide was developed as part of a review of the literature on public health and public safety partnerships, as well as gray literature specific to RxStat and PHPSPs.

Interviews ranged from 23 to 91 min in duration (mean=57 min) and were conducted via telephone or Zoom by the second author. Verbal informed consent was obtained prior to every interview, and interviews were audio recorded and professionally transcribed for analysis. Transcripts were analyzed using a thematic approach, with a codebook developed a priori by the first and second authors, organized around the interview guide, and iteratively modified throughout the data analysis (Guest et al., 2011). All transcripts were coded independently by the authors, with discrepancies resolved through consensus. Major emergent themes were identified, with sub-themes extrapolated and organized to generate a coherent thematic landscape.

2.3. Author positionality

Both authors are current academic professionals with prior experience in the applied public health sector related to substance use and overdose prevention. The second author also is a clinical mental health professional with expertise in the treatment of substance use disorders. The first author is an epidemiologist by training, with expertise in population-level interventions to prevent overdose deaths; the second author is a clinical psychologist by training, with expertise in individual-level interventions to treat substance use disorders. At the time this evaluation was conducted, neither author was employed by nor maintained affiliation with any RxStat member agency.

3. Results

3.1. Stakeholder characteristics

A total of 25 stakeholders participated in this evaluation (Table 2). Ten (40.0%) individuals identified their professional discipline as public health; 9 (36.0%) as public safety; 3 (12.0%) as social and human services; and 2 (8.0%) as clinical medicine. One (4.0%) self-identified as a drug policy analyst. Most respondents (n = 16; 64.0%) were current RxStat members, with a median involvement of 5.5 years (range=2–10 years). All respondents had attended the NYC RxStat Workgroup (n = 25; 100.0%), and nearly all had attended the NYC RxStat Operations Group (n = 20; 80.0%). Most (n = 22; 88.0%) held leadership positions at their respective agencies at the time of their involvement in RxStat.

3.2. Partnership purpose, goals, and outcomes

Stakeholders expressed near unanimous consensus about the overarching goal of RxStat, referred to by many as its “North Star”: to reduce overdose deaths in NYC. Likewise, there was broad consensus that engagement of multiple sectors was necessary to reach this common goal. Several respondents discussed the political benefit of maintaining focus on a broad and high-level goal, strategically selected to bring stakeholders from divergent, even oppositional, sectors together into the same room.

> “Number one, it was to reduce deaths. That’s it. Full stop, reduce deaths. There might have been some sub-goals like increase awareness, the dangers of prescription drugs, get people to stop abusing prescription drugs generally. But the overarching goal was to reduce deaths.”Stakeholder E (public health)

> “The goal was to reduce deaths. So, any way that we could impact that was our mission, and it didn’t make a difference what our philosophy was.”Stakeholder H (public safety)

Stakeholders described this ideological agnosticism as a tool to overcome cross-disciplinary tensions in NYC’s intergovernmental ecosystem, within which agencies were generally unaccustomed to collaboration. Despite a shared overarching goal, however, some respondents expressed reservations about the ability of RxStat to meaningfully impact population-level overdose mortality. Several stakeholders noted that overdose deaths in NYC had increased substantially since RxStat’s inception, with widening disparities by race and

socioeconomic status. As such, stakeholders remained divided on the overall success of RxStat.

> "If you look at the purpose, then we're not succeeding, right? If you look at our background purpose of, you know, reducing overdose fatalities in the city, we're looking at 2020 being the worst year ever on record. And so, you know, by that measure, somebody might say we're failing miserably."Stakeholder M (clinical medicine)

Other respondents framed RxStat's goal as a moving target, with overdose mortality reduction as the primary, but not exclusive, goal. Secondary goals were described in three terms: agency-level policy and practice changes; relationship building across agencies; and individual and institutional attitudinal and cultural changes (Table 3). Several respondents spoke of the success of RxStat as an education and anti-stigma vehicle, identifying value in changing the culture of drug policymaking. These benefits were characterized as intangible but highly valuable. Culture change, such as the use of person-centered language (e.g., "person who uses drugs," rather than "drug user" or "drug addict") in conversation and agency communications, as well as an increased acceptance of evidence-based treatment modalities like opioid agonist therapy, were attributed primarily to information transferred from public health professionals to public safety professionals.

> "We've all opened up our minds more. I've come to understand [medications for addiction treatment (MAT) from public health's] perspective, whereas a public health strategy when you have people dying in record numbers, abstinence is not something that you can really implement on. Like you can't scale up abstinence, you know what I mean?"Stakeholder V (public safety)

Several individuals also found RxStat a beneficial networking opportunity with respect to their own careers. Networking across agencies at a relatively high level helped several respondents more efficiently navigate the complexity of NYC government, both personally and for their staff and/or colleagues within their home agency.

> "We have more mutual resources in the sense of when there are problems, we can figure out a way of finding someone who might be able to answer some of these questions. So maybe it's sort of opening up doors. But that's also networking isn't it? That's what RxStat gives you, an opportunity to network."Stakeholder B (public health)

For several stakeholders, these secondary successes were insufficient without measurable reductions to overdose mortality. Some viewed the ability for interpersonal or attitudinal changes to meaningfully translate to drug policy reform with skepticism. Such skepticism notably was expressed more consistently among public health, social and human services, and clinical medicine professionals, with public safety stakeholders more optimistic about the transformative potential of the partnership.

> "There were some small changes in the language that people used. Maybe more openness to, you know, buprenorphine or methadone, a little bit better understanding of harm reduction. But in the end, I'm not sure. Nothing changed.

> And so [public safety has] a different rhetoric now, but their behavior is quite the same."Stakeholder Q (public health)

Disciplinary tension and trust building across sectors—Stakeholder perspectives diverged with respect to the ability of all participating disciplines to meaningfully reduce overdose deaths. Several respondents, however, had no reservations about the compatibility of public health and public safety. These individuals generally asserted that the two sectors each held pieces of the strategy to reduce overdose deaths from which the other party could benefit.

> "Not only are [public health and public safety] compatible, they're necessary for that type of work to happen. If you stay in your corner and you try to solve a problem like this, you're never going to be able to solve it alone."Stakeholder F (public health)

In contrast, other stakeholders expressed reservations about the capacity of the two disciplines to collaborate. Several of these individuals framed RxStat as an opportunity for representatives from divergent disciplines to educate one another on the perspectives they held toward drug policy, including from places of respectful disagreement. These individuals believed that such education in and of itself was worthwhile, regardless of RxStat's adherence to the overarching outcome of reducing overdose deaths.

> "I think educating each other has been a cornerstone. Even when we're not working towards a common goal, one of the key components, I think, of RxStat, is educating each other, just in even the discussions at the break or discussions beforehand."Stakeholder U (public safety)

Further, several stakeholders from public safety expressed a perceived need to justify public safety approaches and methods to colleagues in public health. These individuals perceived their colleagues to believe that the public health approach to overdose prevention was the preferred or correct approach, while the public safety approach was, at best, anachronistic or, at worst, harmful. These public safety stakeholders were adamant that public safety's contributions to drug policy were inherently valuable and need not conform wholly to a public health model.

> "I think [public health], it's in their DNA to not like coercion at all. And that's how they see law enforcement. It's all about coercion. It's a fundamental way of seeing the world. Is there any role at all for law enforcement in public health issues? I think that many of the people from [public health] would just like law enforcement to go away and let them take care of educating the world."Stakeholder O (public safety)

Similar perceptions of public safety approaches, although not unanimous among stakeholders, were voiced by several public health representatives. These individuals expressed uncertainty regarding the value that public safety—specifically, law enforcement—had to offer contemporary drug policy. Moreover, they identified this tension as a barrier to productive policymaking, despite the ideologically agnostic nature of RxStat's overarching goal.

> "The difference was existential. You know, there was this sort of sense that you could feel among the public safety people that there was an awareness, 'The public health people think we shouldn't exist at all. The public health people feel like we have no role in this conversation at all.'. I'd say it's really true, among some of us on the public health side, there was really the sense that these people shouldn't be in this conversation at all."Stakeholder W (public health)

Other stakeholders identified that RxStat's ideological agnosticism was at odds with its public health approach to drug policy. That is, these individuals expressed that, should RxStat take a population health approach, strategies aligned with that approach necessarily should be prioritized. Some stakeholders, however, reported an inability to directly critique the approaches of other sectors, as mutual respect and collegiality were critical to convening and sustaining RxStat.

> "My experiences with law enforcement are that it's a very emotional topic. It's like, 'How do you feel? What do you think or feel works, Officer Smith?' Instead of being like, 'We have evidence that that doesn't work. I don't care how you feel about it. It doesn't work.' And I think that that was really hard—no one in that room would ever say that."Stakeholder C (clinical medicine)

Finally, several stakeholders noted that tensions between disciplines arose as part of perceived power differentials within NYC government. These were expressed in terms both material (e.g., financial support for agencies and sectors) and political (e.g., agency influence within the NYC government hierarchy). While public health's expertise in both data and subject matter were seen to be respected, that respect may not have necessarily translated to power in policymaking.

> "I think the fundamental view of the public health folks is law enforcement should just lay back and let us do our job. But you know, what do you have to show for your approach? And then [public health] says, 'Well we don't have any resources. Give us half your budget and we'll be able to do whatever.' And I just don't know if that's true. I don't know if that's what it's about."Stakeholder O (public safety)

Some stakeholders identified that these power differentials influenced the feasibility of potential outcomes for RxStat. In the context of the tangible outcomes attributed to RxStat, these observations highlight that the policy choices that stakeholders made were not ideologically agnostic, but rather reflective of the political and budgetary context of the partnership and its agency composition. These stakeholders framed this as tension between rhetoric and practice inherent to public health policymaking.

> "With such a difficult and important public health problem, [public health was] really insufficiently resourced. When you're working across agencies, that becomes much more obvious. Even if we were sort of calling overdose a 'public health problem,' which is kind of the rhetoric, public health doesn't have the resources to solve it. What ends up happening, in my opinion, is that other more well-resourced agencies end up using public health tactics either instead of or with much less of a contribution from public health."Stakeholder K (public health)

Finally, many stakeholders described regulatory and cultural barriers to data sharing between agencies. Stakeholders from public health and clinical medicine, disciplines subject to federal privacy regulations (e.g., HIPAA and 42 CFR Part 2), generally supported stronger data protections. Stakeholders from public safety, disciplines largely exempt from federal privacy regulations, generally viewed data protections as obstructive. A unifying theme, however, was that the decentralized nature of data across government, with agencies collecting and storing data independently from one another, was itself a barrier to timely data access.

> "I've worked in a jurisdiction where their government-owned data belonged to the government and it was across all government agencies. And so the 'government' could pull up de-identified information across all the agencies. And so you have compatible definitions of different things. Everybody in New York City owns their own data. We don't have an entity that's over all of them that requires data sharing."Stakeholder S (public safety)

Partnership structure and opportunities for reform—Stakeholders consistently identified a lack of accountability with respect to execution of RxStat cross-agency initiatives and described this gap as an impediment to the partnership's transformative potential. Agencies operated independently from one another, and members reported to their own agency heads or other elected or appointed officials. As such, RxStat lacked a centralized accountability mechanism to track progress and move policy and program proposals across government. Without a central authority to which all parties report, some stakeholders described an adversarial culture of competition between agencies.

> "It needs to be taken out of the agencies' hands and needs to be run by the Mayor. If they were to come to City Hall, then it would look a lot different. Including the potential for camaraderie—at least cooperation from everybody around the table together—rather than this kind of agency against agency dynamic there now, which is harmful and problematic."Stakeholder P (public health)

Additionally, several stakeholders suggested that restricting the partnership to government officials limited the horizon of what was discussed by excluding perspectives of the individuals closest to the overdose epidemic, including substance use service providers, policy advocates, and people who use drugs. Stakeholders detailed their recognition of and respect for the value of the perspectives of individuals working directly in communities. While the sensitive nature of information shared was raised as potential concern, stakeholders were generally enthusiastic and inclusive in their discussion of the need for additional voices.

> "We need to go outside of government. I think what we need to get is hospitals, universities, harm reduction providers. They're part of this community. In the constellation of people, they're really vitally important. I think that particularly harm reduction providers would be really important. They're the front-line people obviously doing the work."Stakeholder A (public safety)

Stakeholders who had attended both the NYC RxStat Workgroup and Operations Group, which met in parallel, described the groups as serving different but complementary

functions. The Workgroup was organized as a policy laboratory—focused on data sharing, education, and strategy development—and the Operations Group focused on action and accountability—rooted in case review and service gap identification. Several stakeholders described the Operations Group as an informal overdose fatality review (OFR) panel—i.e., a cross-disciplinary case-review panel convened to review decedent contact with public systems and services—with data shared voluntarily by agencies through RxStat rather than through legislation, as is typical of OFRs. Some stakeholders found the case-based nature of the Operations Group an effective tool to generate agency-level change through "calling out" system failures for individual overdose decedents. Other stakeholders, however, described case reviews as a provocative thought experiment with little impact, given that the convening co-chairs lacked authority to compel agencies to change policies.

> "There was no accountability. Everyone should go away when they see a problem or a problem as being put out there, go away and address it. But no one had to. There was no report back. As far as I know, it's not in any minutes. In some ways, it's an interesting exercise, but unless it actually changed things for people who use drugs, it ends up being kind of pointless."Stakeholder B (public health)

Despite the challenges to effective partnership described by all stakeholders, very few individuals expressed reservations about the continuation of RxStat, its sustainability in NYC, or its portability to other jurisdictions. Nearly all stakeholders were supportive of the continued convening of RxStat and expansion to new practice domains. For many individuals, convening across disciplines was viewed as a success in and of itself, regardless of the outcomes around policy or practice.

> "I would say [RxStat is] a necessary model for all cities or counties to have—on some level, some sort of collaboration. I think that the education that people get when they are all in the same room is phenomenal."Stakeholder U (public safety)

4. Discussion

This qualitative evaluation of NYC RxStat, the US's first public health and public safety partnership and a national model for local overdose strategy and response, identified cross-disciplinary tensions, challenges to collaboration and implementation, and opportunities for partnership optimization and growth. As the first evaluation of any PHPSP in the US, these findings can inform future efforts to implement and scale PHPSPs nationally (Centers for Disease Control and Prevention, 2022). Stakeholders described a series of concrete strategies to improve the RxStat partnership, which we have organized into three opportunity areas: (1) ensure stakeholder and agency accountability; (2) build secure and mutually beneficial data systems; and (3) structure partnerships to facilitate equitable collaboration (Table 4).

4.1. Opportunity 1: Ensure stakeholder and agency accountability

Respondents noted a desire for responses across sectors to connect concretely to overdose mortality reduction, RxStat's "North Star." However, stakeholders from public health and public safety reported the perception that other disciplines were not tailoring strategies toward direct overdose reduction. To ensure that RxStat remains an evidence-based vehicle for overdose policy innovation, RxStat leadership and staff could inventory and

characterize RxStat initiatives across agencies to ensure that partnership-involved or -sponsored responses are evidence-based, a practice of systematic organizational assessment that has been executed successfully in other domains (e.g., child welfare, (US Department of Health and Human Services, 2017) clinical medicine, (Miake-Lye et al., 2020) and homeless services (Guarino et al., 2009)).

Likewise, several stakeholders suggested that the inclusion of non-governmental stakeholders—e.g., harm reduction service providers, drug policy advocates, and substance use disorder treatment providers—in RxStat could increase accountability, provide a balance between the potentially competing interests of public health and public safety, and maintain RxStat's focus on overdose prevention (Petchel et al., 2020). Non-governmental membership in RxStat could mirror the successful composition of child, (Quinton, 2017) elder abuse, (Burnett et al., 2021) and domestic violence (Storer et al., 2013) fatality review panels in jurisdictions nationally.

Relatedly, no iteration of RxStat maintained or distributed meeting minutes or attendance logs. As such, we were unable to assess the specific topics and quality of meetings or track changes in engagement and follow-up as part of this study. By centralizing record keeping within the offices of the public health and public safety co-chairs, RxStat leadership would be better equipped to become a vehicle for policy change. Recording and distributing meeting minutes publicly also could serve as a public engagement and accountability tool, consistent with other interagency groups in NYC (e.g., the NYC Board of Correction (New York City Board of Correction, 2022)).

4.2. Opportunity 2: Build secure and mutually beneficial data systems

Data sharing was the foundational task of RxStat and remains central to the partnership. However, several public health stakeholders expressed reservations about the utility and reciprocity of interagency data sharing. Given the different data security and privacy standards of participating disciplines, all RxStat member agencies could adhere to a mutually compliant standard of data protection and de-identification to facilitate sharing across disciplinary norms (Schmit et al., 2019).

Furthermore, several members, particularly those without analytic expertise, desired a roster of available data sources and indicators to inform interventions. One strategy is to convene an analytic subgroup comprised of agency analysts with direct access to necessary data sources to procure data in advance of meetings and coordinate interagency sharing. For initiatives identified as RxStat programs and policies, the group could engage expert, non-partisan analytic support from academia or the research sector to ensure that initiatives are rigorously evaluated, consistent with prior research identifying a desire from public health professionals for enhanced practitioner-evaluator engagement (van der Graaf et al., 2017). Where available, RxStat could leverage external federal support—e.g., CDC, BJA, or ONDCP—for such evaluation research.

Lastly, RxStat was founded on the assumption that public health and public safety are natural collaborators. Stakeholders from multiple sectors, however, described divergent disciplinary approaches as potential roadblocks to effective collaboration. Prior researchers

have detailed the challenges to cross-sector collaboration, consistent with the organizational, material, and ideological challenges described by RxStat stakeholders (Zhu et al., 2019). To maximize RxStat's collaborative potential, a thorough and forthright review of member agency strategic drug policy goals, tools, and capacities could be conducted as part of any RxStat restructuring to allow members to identify clear points of collaboration, as well as points of impasse, to ground meetings strategy and planning meetings in realistic areas of overlap and compromise (Bryson et al., 2015).

4.3. Opportunity 3: Structure NYC RxStat to facilitate equitable collaboration

Stakeholders across sectors emphasized the need for external accountability to ensure that policy changes were realized within and across agencies. Given that most RxStat member agencies are local compared to state or federal, the NYC Office of the Mayor was suggested as a potential central body to oversee policy implementation across NYC agencies. In the absence of a legislative charge, similar to most OFR panels, (Haas et al., 2019) the strategic use of a central authority agency could ensure that necessary changes are implemented uniformly across RxStat member agencies (Conroy et al., 2021).

Likewise, while some stakeholders described RxStat's breadth as a strength, the diversity of expertise was perceived by others as unwieldy with respect to the execution of concrete tasks. To maximally leverage this diversity, some stakeholders suggested the formation of targeted subcommittees to move policies and programs from ideas to actions. Subcommittee topics could cover, for example, primary prevention strategies, work with youth and families, criminal justice diversion, and cross-sector data analytics, among other topics.

Stakeholders concurred that RxStat is grounded in a "public health approach," measuring population-level patterns and trends and implementing population-level responses. Some stakeholders suggested, however, that as RxStat evolved, its implementation may have shifted toward a case-based model more consistent with a "public safety approach." (Goff et al., 2019) An emphasis on data and commitment to evidence-based strategies under RxStat could help reorient the partnership as a vehicle utilizing public health methods.

Relatedly, as RxStat is fundamentally a partnership of equals, co-chairs from public health and public safety jointly lead the group. Some stakeholders, however, described intergovernmental politics as a primary factor in determining which strategies, interventions, and approaches were elevated over others. To defuse these politics, the inclusion of a third, non-governmental co-chair to represent the community-based nature of overdose prevention and response could ensure that RxStat remains collaborative and maximizes the strengths of all parties (Towe et al., 2016).

4.4. Limitations

This study has three primary limitations. First, interviews were restricted to members of RxStat, a single initiative in NYC. Given NYC's unique intergovernmental architecture and drug policy history, findings may not generalize to PHPSPs in other jurisdictions and contexts. However, as PHPSPs modeled on RxStat have proliferated nationally, findings about RxStat are likely to provide insight for practitioners and policymakers in other settings.

Second, since its inception, RxStat has taken three forms over 10 years. Given this length of time, it is possible that responses may be subject to recall bias for participants no longer involved in RxStat. However, as most stakeholders (64%) were current RxStat members and participation in RxStat constitutes an "elite" source of insight, (Scally et al., 2021) we believe the risk of recall bias to be minimal.

Third, RxStat was founded during the first wave of the overdose epidemic in 2012, a time during which public health prevention efforts focused on opioid analgesic-involved overdose deaths (Paone et al., 2015). Thus, it is possible that interviews with former RxStat members may not reflect the current "fourth wave" of the overdose epidemic, which is driven by fentanyl, stimulants, and polysubstance use (Ciccarone, 2021). However, given that all respondents were drug policy professionals with content expertise and that interviews focused the operational and intergroup dynamics of RxStat, not specific overdose knowledge, we believe that our findings are applicable to the current post-pandemic period and may inform cross-disciplinary workgroups tasked with jointly responding to other public health problems across injury prevention, infectious disease, and chronic disease.

4.5. Conclusions

This study, the first evaluation of any PHPSP to reduce overdose deaths, found that RxStat, the nation's first and model PHPSP, faced distinct challenges to implementation, despite numerous successes. We detailed a series of opportunities and strategies for RxStat and other PHPSPs modeled on its approach to optimize collaboration across sectors and ensure population-level impact. Despite a lack of success along its primary goal, overdose mortality reduction, RxStat and other PHPSPs may serve several secondary and less tangible functions, such as delivering anti-stigma education and facilitating professional relationship development.

Funding

The work described in this paper was supported by the Centers for Disease Control and Prevention (NU17CE924978) through an award made to the Fund for Public Health in New York, Inc. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Centers for Disease Control and Prevention, the Fund for Public Health in New York, Inc., or the New York City Department of Health and Mental Hygiene.

Biographies

Bennett Allen, PhD, MPA is an Assistant Professor of Epidemiology in the Department of Population Health at the NYU Grossman School of Medicine, where he is affiliated with the Center for Opioid Epidemiology and Policy. His research evaluates programs and policies in substance use, overdose prevention, and behavioral health using epidemiological and machine learning methods. Additional work considers various facets of public health practice using qualitative methods and bioethical frameworks. He received his PhD in Epidemiology from the NYU Grossman School of Medicine and MPA in Public Policy from the NYU Wagner School of Public Service.

Adelya Urmanche, PhD, completed her doctoral degree at the Derner School of Psychology, Adelphi University and is currently a Postdoctoral Fellow in the Department

of Psychiatry at Mount Sinai Beth Israel Medical Center in New York City. She is interested in research that amplifies the voices of people who use drugs and/or directly informs clinical practice. She has worked with organizations like the New York City Department of Health and Mental Hygiene, Weill Cornell Medical College, and NYU's Center for Neural Science. Her philosophy is rooted in the bridging of prevention, treatment, research, and policy.

References

Allen B, Feldman JM, & Paone D (2021). Public health and police: Building ethical and equitable opioid responses. Proceedings of the National Academy of Sciences of the United States of America, 118(45). 10.1073/pnas.2118235118

Allen B, Nolan ML, Kunins HV, & Paone D (2019). Racial differences in opioid overdose deaths in New York City, 2017. JAMA Internal Medicine, 179(4), 576–578. 10.1001/jamainternmed.2018.7700 [PubMed: 30742218]

Allen B, Sisson L, Dolatshahi J, Blachman-Forshay J, Hurley A, & Paone D (2020). Delivering opioid overdose prevention in bars and nightclubs: A public awareness pilot in New York City. Journal of Public Health Management and Practice, 26(3), 232–235. 10.1097/phh.0000000000001014 [PubMed: 32238787]

Askari MS, Bauman M, Ko C, Tuazon E, Mantha S, & Harocopos A (2023), *Vol.* 133. Unintentional drug poisoning (overdose) deaths in New York City in 2021 New York City Department of Health and Mental Hygiene.

Bryson JM, Crosby BC, & Stone MM (2015). Designing and implementing cross-sector collaborations: Needed and challenging. Public Administration Review, 75(5), 647–663.

Burnett J, Dyer CB, & Heisler CJ (2021). Enhancing and evaluating the capacity of elder abuse fatality review teams to assist victim services. The Journal of Elder Abuse & Neglect, 33(2), 107–122. 10.1080/08946566.2021.1929640 [PubMed: 34053411]

Cartus AR, Li Y, Macmadu A, et al. (2022). Forecasted and observed drug overdose deaths in the US during the COVID-19 pandemic in 2020. JAMA Network Open, 5(3), Article e223418. 10.1001/jamanetworkopen.2022.3418 [PubMed: 35311967]

Centers for Disease Control and Prevention. (2022). Partnerships between public health and public safety ⟨https://www.cdc.gov/drugoverdose/strategies/public-safety.html⟩.

Ciccarone D (2021). The rise of illicit fentanyls, stimulants and the fourth wave of the opioid overdose crisis. Current Opinion in Psychiatry, 34(4), 344–350. 10.1097/yco.0000000000000717 [PubMed: 33965972]

Ciccarone D, & Shoptaw S (2022). Understanding stimulant use and use disorders in a new era. Medical Clinics of North America, 106(1), 81–97. 10.1016/j.mcna.2021.08.010 [PubMed: 34823736]

Colon-Berezin C, Nolan ML, Blachman-Forshay J, & Paone D (2019). Overdose deaths involving fentanyl and fentanyl analogs - New York City, 2000–2017. The Morbidity and Mortality Weekly Report, 68(2), 37–40. 10.15585/mmwr.mm6802a3 [PubMed: 30653482]

Conroy K, Anderson ME, Mastri A, Benton A, & Lehman G (2021). Facilitating local cross-sector collaboration: Strategies for intermediaries. Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services

Dolatshahi J, Maldjian L, Welch A, Fulmer C, & Winkelstein E (2019). Tracking community naloxone dispensing: Part of a strategy to reduce overdose deaths. Online Journal of Public Health Informatics, 11(1), Article e445.

El-Sayed AM (2016). What is "public" about public health: Lessons from Michigan. American Journal of Public Health, 106(7), 1171–1172. 10.2105/ajph.2016.303243 [PubMed: 27285255]

Friedman B (2022). What is public safety? Boston University Law Review, 102(3), 725–791.

Goff PA, Hinton E, Meares TL, Sarnoff CN, & Tyler TR (2019). Re-imagining public safety: Prevent harm and lead with the truth. Justice Collaboratory, Yale Law School

Goodman JD (2018). *City officials see progress in effort to curb opioid deaths*. The New York Times.

Guarino K, Soares S, Konnath K, Clervil R, & Bassuk E (2009). Trauma-informed organizational toolkit. Center for Mental Health Services, Substance Abuse and Mental Health Services Administration

Guest GS, MacQueen KM, & Namey EE (2011). Applied thematic analysis Sage Publications.

Haas E, Truong C, Bartolomei-Hill L, Baier M, Bazron B, & Rebbert-Franklin K (2019). Local overdose fatality review team recommendations for overdose death prevention. Health Promotion Practice, 20(4), 553–564. 10.1177/1524839918797617 [PubMed: 30205737]

Heller D, Bradley O′ Brien D, Harocopos A, et al. (2014). NYC RxStat: Technical assistance manual. New York/New Jersey High Intensity Drug Trafficking Area, New York City Department of Health and Mental Hygiene.

High Intensity Drug Trafficking Area Program (2020). Overdose response strategy 2020 annual report. White House Office of National Drug Control Policy

Kaplan-Dobbs M, Kattan JA, Tuazon E, Jimenez C, Saleh S, & Kunins HV (2021). Increasing access to buprenorphine in safety-net primary care clinics: The New York City Buprenorphine Nurse Care Manager Initiative. The American Journal of Public Health, 111(2), 215–218. 10.2105/ajph.2020.306000 [PubMed: 33351661]

Miake-Lye IM, Delevan DM, Ganz DA, Mittman BS, & Finley EP (2020). Unpacking organizational readiness for change: An updated systematic review and content analysis of assessments. BMC Health Services Research, 20(1), 106. 10.1186/s12913-020-4926-z [PubMed: 32046708]

New York City Board of Correction (2022). Meeting materials ⟨https://www.nyc.gov/site/boc/meetings/meetings.page⟩. (Accessed 27 March 2022).

Office of the Mayor of the City of New York. (2017). HealingNYC: Preventing overdoses, saving lives Office of the Mayor, City of New York.

Paone D, Tuazon E, Kattan J, et al. (2015). Decrease in rate of opioid analgesic overdose deaths - Staten Island, New York City, 2011–2013. The Morbidity and Mortality Weekly Report, 64(18), 491–494. [PubMed: 25974633]

Patton MQ (2002). Qualitative research and evaluation methods (third ed.). Sage Publications.

Petchel S, Gelmon S, & Goldberg B (2020). The organizational risks of cross-sector partnerships: A comparison of health and human services perspectives. Health Affairs, 39(4), 574–581. 10.1377/hlthaff.2019.01553 [PubMed: 32250681]

Quinton RA (2017). Child death review: Past, present, and future. Academic Forensic Pathology, 7(4), 527–535. 10.23907/2017.045 [PubMed: 31240004]

Rubel S, & Roe S (2022). Public Health and Safety Team (PHAST) toolkit: Guidance for data-driven overdose response coordination among public health, criminal justice, law enforcement, and first responders CDC Foundation.

Saloner B, McGinty EE, Beletsky L, et al. (2018). A public health strategy for the opioid crisis. Public Health Reports, 133(1_suppl), 24s–34s. 10.1177/0033354918793627 [PubMed: 30426871]

Scally G, Black D, Pilkington P, Williams B, Ige-Elegbede J, & Prestwood E (2021). The application of ‘elite interviewing’ methodology in transdisciplinary research: A record of process and lessons learned during a 3-year pilot in urban planetary health research. The Journal of Urban Health, 98(3), 404–414. 10.1007/s11524-021-00542-1 [PubMed: 33988827]

Schmit C, Kelly K, & Bernstein J (2019). Cross sector data sharing: Necessity, challenge, and hope. The Journal of Law, Medicine & Ethics, 47(Suppl. 2), S83–S86. 10.1177/1073110519857325

Shepherd JP, & Sumner SA (2017). Policing and public health-strategies for collaboration. JAMA, 317(15), 1525–1526. 10.1001/jama.2017.1854 [PubMed: 28358946]

Spencer MR, Miniño AM, & Warner M (2022). Drug overdose deaths in the United States, 2001–2021. NCHS Data Briefing, 457, 1–8.

Storer HL, Lindhorst T, & Starr K (2013). The domestic violence fatality review: Can it mobilize community-level change. Homicide Studies, 17(4), 418–435. 10.1177/1088767913494202 [PubMed: 25741174]

Towe VL, Leviton L, Chandra A, Sloan JC, Tait M, & Orleans T (2016). Cross-sector collaborations and partnerships: essential ingredients to help shape health and well-being. Health Affairs, 35(11), 1964–1969. 10.1377/hlthaff.2016.0604 [PubMed: 27834234]

US Department of Health and Human Services. (2017). How can child welfare organizational capacity be measured? Administration for Children and Families

van der Graaf P, Forrest LF, Adams J, Shucksmith J, & White M (2017). How do public health professionals view and engage with research? A qualitative interview study and stakeholder workshop engaging public health professionals and researchers. BMC Public Health, 17(1), 892. 10.1186/s12889-017-4896-1 [PubMed: 29166894]

Wilson N, Kariisa M, Seth P, Smith H.t., & Davis NL (2020). Drug and opioid-involved overdose deaths - United States, 2017–2018. The Morbidity and Mortality Weekly Report, 69(11), 290–297. 10.15585/mmwr.mm6911a4 [PubMed: 32191688]

Windle M, Lee HD, Cherng ST, et al. (2019). From epidemiologic knowledge to improved health: A vision for translational epidemiology. The American Journal of Epidemiology, 188(12), 2049–2060. 10.1093/aje/kwz085 [PubMed: 30927354]

Zhu X, Weigel P, Baloh J, Nataliansyah M, Gunn N, & Mueller K (2019). Mobilising cross-sector collaborations to improve population health in US rural communities: A qualitative study. BMJ Open, 9(11), Article e030983. 10.1136/bmjopen-2019-030983

Table 1

Timeline of NYC RxStat, 2012–2021.

Partnership Name	***Years***	***Chairing Agencies***	***Purpose***	***Meeting Frequency***
New York City Task Force on Prescription Painkiller Abuse	*2012–2013*	• Office of the Mayor • DOHMH	• Cross-sector/interagency data sharing and dissemination	• Monthly
NYC RxStat Workgroup	*2013–2021*	• DOHMH • NY/NJ HIDTA	• Cross-sector/interagency data sharing and dissemination • Cross-sector/interagency thought leadership, education, and strategic planning	• Monthly
NYC RxStat Operations Group	*2016–2021*	• NYPD • DOHMH • NY/NJ HIDTA	• Cross-sector/interagency response development • Overdose decedent case review to identify agency touchpoints	• Quarterly

Source: NYC RxStat internal communications provided to authors

Abbreviations: DOHMH, New York City Department of Health and Mental Hygiene; NY/NJ HIDTA, New York/New Jersey High Intensity Drug Trafficking Area Program; NYPD, New York City Police Department

Table 2

NYC RxStat stakeholder characteristics.

Characteristic	N (%)
Total	25 (100)
Discipline	
Public health	10 (40.0)
Public safety	9 (36.0)
Social and human services	3 (12.0)
Clinical medicine	2 (8.0)
Drug policy analyst	1 (4.0)
Member status	
Current	16 (64.0)
Former	9 (36.0)
Groups attended	
Mayor's Taskforce on Prescription Painkiller Abuse	8 (32.0)
NYC RxStat Workgroup	25 (100.0)
NYC RxStat Operations Group	20 (80.0)
Held position of leadership or influence in home agency	
Yes	22 (88.0)
No	3 (12.0)
Years involved in NYC RxStat	
Median	5.5 years
Range	2–10 years

Source: Authors' analysis of data from interviews with NYC RxStat stakeholders.

Notes: Groups attended, not mutually exclusive; percent will not equal 100.

Table 3

Goals and outcomes of NYC RxStat.

Priority	*Goal*	*Observed Outcomes*
Primary	Citywide overdose mortality reduction	• Increase in overdose deaths in NYC since partnership formation
Secondary	Agency policy change	• NYPD officer equipment with naloxone
		• Use of naloxone in NYC DHS homeless shelters
		• Post-overdose follow-up program launched in collaboration between NYPD and NYS DOH
		• Post-release referrals to MOUD treatment from NYC DOC jails, including Rikers Island
		• Integration of harm reduction service referrals in NYC HRA public benefits system
	Interagency relationship building	• Cross-agency collegiality and collaboration
		• Professional networking for government professionals
	Education, attitude, and culture change	• Use of person-centered language by stakeholders and agencies
		• Increased acceptance of MOUD treatment and harm reduction strategies by public safety and social and human services stakeholders

Source: Authors' analysis of data from interviews with NYC RxStat stakeholders.

Abbreviations: MOUD, medication for opioid use disorder; NYC, New York City; NYC DHS, New York City Department of Homeless Services; NYC DOC, New York City Department of Corrections; NYC HRA, New York City Human Resources Administration; NYPD, New York City Police Department; NYS DOH, New York State Department of Health.

Table 4

Opportunities and strategies to optimize public health and public safety partnerships.

Opportunity	*Strategy*	*Implementation within NYC RxStat*
Ensure stakeholder and agency accountability	Orient programmatic responses across sectors alongside trends in overdose deaths	• Inventory current RxStat initiatives across agencies to assess to which participating agency collaborations are grounded in evidence for overdose prevention and authentically tied to the partnership's North Star goal to reduce population-level overdose deaths.
	Invite non-governmental stakeholders and advocates to join PHPSPs	• Include non-governmental stakeholders (e.g., harm reduction service providers, drug policy advocates, SUD treatment providers, and academic experts) to increase member agency accountability, provide balance between potentially competing interests across disciplines, and maintain focus on overdose prevention policy innovation.
	Prioritize record keeping and written accountability mechanisms for members	• Centralize note taking and written follow up within the chairing agencies to utilize record keeping as a tool to encourage action, generate accountability, and build interagency and public trust.
	Raise public awareness of PHPSPs and associated outcomes	• Produce public-facing materials (e.g., an annual report) to generate public good will and encourage public engagement for RxStat leadership.
Build secure and mutually beneficial data systems	Utilize data sharing to foster interagency and public trust	• Ensure that data shared across between member agencies maintains rigorous standards for data security and patient/individual privacy.
	Inventory data sources across member agencies and centralize data sharing in an analytic subgroup	• Generate clear roster of data sources and indicators across RxStat member agencies to cultivate data as a resource for stakeholders regardless of individual or agency technical capacities.
	Engage expert analytic support for rigorous program and policy evaluation	• Where funds available—including through leveraged external federal support—secure evaluation of sponsored collaborative RxStat initiatives from expert, nonpartisan partners in academia or the research sector.
	Assess where disciplinary goals and strategies are shared and divergent	• Overcome ideological tensions across agencies by identifying areas of realistic overlap and compromise to build shared initiatives.
Structure partnerships to facilitate equitable collaboration	Centralize PHPSPs within an executive leadership body	• Utilize an external leadership body (e.g., an executive office or interagency and indisciplinary leadership council) to centralize authority and build in oversight across RxStat member agencies.
	Leverage diversity of expertise to develop cross-sector initiatives through subcommittees	• Promote collaborative initiative development through small groups with narrow and targeted implementation goals
	Commit PHPSPs to a population health approach to policymaking	• Prioritize population-level interventions that are scalable across agencies—and, consequently, across the populations served by different agencies—to maximize the reach of collaborative RxStat initiatives
	Ground PHPSPs in strong leadership across sectors	• Strategically include key individuals in leadership roles to rally and sustain support across sectors

Source: Authors' analysis of data from interviews with NYC RxStat stakeholders. *Abbreviations*: PHPSP, public health and public safety partnership; SUD, substance use disorder.

Table A1

NYC RxStat member agencies.

Level of Government	*Agency*
Local	Bronx County District Attorney's Office
	Fire Department of the City of New York
	Kings County District Attorney's Office
	Lyndhurst Police Department
	New York City Department of Correction
	New York City Department of Health and Mental Hygiene
	New York City Department of Homeless Services
	New York City Department of Probation
	New York City Health + Hospitals, Correctional Health Services
	New York City Health + Hospitals, Office of Behavioral Health
	New York City Human Resources Administration
	New York City Mayor's Office of Criminal Justice
	New York City Office of the Chief Medical Examiner
	New York City Poison Control Center
	New York City Police Department
	New York County District Attorney's Office
	Office of the Mayor of the City of New York
	Office of the Special Narcotics Prosecutor for the City of New York
	Queens County District Attorney's Office
	Regional Medical Services Council of New York City
	Richmond County District Attorney's Office
State	Nassau County Office of the Medical Examiner
	New Jersey Attorney General's Office
	New Jersey Department of Health
	New Jersey State Police
	New York State Attorney General's Office
	New York State Department of Corrections and Community Supervision
	New York State Department of Health, AIDS Institute
	New York State Department of Health, Bureau of Narcotic Enforcement
	New York State Executive Chamber
	New York State Governor's Office
	New York State Office of Alcoholism and Substance Abuse Services
	New York State Police
Federal	Drug Enforcement Administration
	New York/New Jersey High Intensity Drug Trafficking Area
	Substance Abuse and Mental Health Services Administration
	United States Attorney's Office, Eastern District of New York
	United States Attorney's Office, Southern District of New York

Source: NYC RxStat membership list provided to authors.

Note: Membership composition current as of December 2021.