

Evaluation of Racial and Ethnic Disparities of Naloxone Uptake among Harm Reduction Clients in Rhode Island

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INTRODUCTION

In 2022, 434 Rhode Islanders lost their lives to overdose.¹ Of the overdose deaths in 2022, 91% involved illicit drugs.² This has increased dramatically since 2009, when 38% of overdose deaths involved illicit drugs.² This increase is seen in opioid and nonopioid-involved overdose deaths. Additionally, non-Hispanic Black individuals experience the highest rates of fatal overdoses in RI, and the fatal overdose rate among Hispanic individuals increased by 50% in 2022.²

Harm reduction is defined as “a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. Harm reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs.”^{3,4} In 2019, the Drug Overdose Prevention Program (DOPP) and the Center for HIV, Hepatitis, Sexually Transmitted Diseases and Tuberculosis Epidemiology (CHHSTE) at the RI Department of Health (RIDOH) partnered with community harm reduction organizations to rapidly respond to overdose spikes. Parent Support Network of RI (PSNRI), AIDS Care Ocean State (ACOS), and Project Weber/RENEW (PWR) began supporting communities at risk for overdose in 1986, 1994, and 2006, respectively.^{5,6,7} PSNRI, ACOS, and PWR staff continue to provide harm reduction tools, basic needs, case management, education, and linkage to health services to populations at risk of overdose.^{5,6,7} In March 2022, Attorney General Peter Neronha announced that RI would receive 50,000 naloxone kits each year for 10 years due to a settlement with drug manufacturers.⁸

The purpose of this analysis was to understand the difference in naloxone uptake by race and ethnicity among 2022 harm reduction clients who received safer injection kits, safer smoking kits, or both types of kits. This data highlights the lifesaving work that RIDOH-funded harm reduction organizations do and their efforts to reach historically marginalized racial and ethnic groups.

METHODS

This data was collected by outreach workers at PSNRI, ACOS, and PWR during encounters with clients. Generally, clients must register with a harm reduction organization and receive an anonymous client code for use at subsequent encounters. During encounters, outreach team members record clients' demographic data and supplies and services

received. Each organization records and submits this data to RIDOH monthly. Until early 2022, RIDOH-funded harm reduction organizations were not funded to distribute safer smoking supplies. Consequently, one year of data between January 1 and December 31, 2022, was analyzed.

Clients who received at least one safer injection kit, safer smoking kit, or naloxone kit during 2022 were defined as having received those kits. Safer injection kits include 10 sterile needles; safer smoking kits include either one bubble pipe for methamphetamine use or two straight pipes for crack cocaine use, and naloxone kits include two doses of intranasal naloxone.

Clients were separated into three mutually exclusive groups: those who received safer injection kits, those who received safer smoking kits, and those who received both kits in 2022. Client race and ethnicity data was occasionally discrepant or missing, as the provision of essential supplies and services was prioritized over demographic data collection when necessary. Demographic data is self-reported and clients could have identified themselves as various races and ethnicities at different encounters. Therefore, demographic data reported at the clients' last encounter in 2022 was used for this analysis. Race and ethnicity were combined to categorize clients into the following groups: non-Hispanic White (henceforth “White”), non-Hispanic Black (henceforth “Black”), Hispanic, and non-Hispanic clients who identified as another race (henceforth “Other race”). The Other race category includes clients who identified as Native American or Alaskan Native, Native Hawaiian or Pacific Islander, Asian, more than one race, or not specified; these groups are aggregated due to small numbers.

RESULTS

In 2022, 4,128 unique clients received safer injection kits and/or safer smoking kits (Table 1). Of the clients who received safer injection kits, 51.3% also received naloxone. By comparison, 31.8% of people who received safer smoking kits also received naloxone and 56.7% of the clients who received both safer injection kits and safer smoking kits also received naloxone. Variation in receipt of naloxone by race and ethnicity existed within the three groups. Of the clients who received safer injection kits, 52.0% of White clients, 58.3% of Black clients, 46.1% of Hispanic clients,

Table 1. Unique Clients Receiving Injection Kits, Smoking Kits, and Naloxone by Race and Ethnicity (RI, 2022)

Race and Ethnicity	Unique Clients N	Unique Clients who Received Injection Kits		Unique Clients who Received Smoking Kits		Unique Clients who Received Injection Kits and Smoking Kits	
		Received Injection Kits n	Received Injection Kits and Naloxone n (%)	Received Smoking Kits n	Received Smoking Kits and Naloxone n (%)	Received Injection Kits and Smoking Kits n	Received Injection Kits, Smoking Kits, and Naloxone n (%)
Non-Hispanic White	2,616	1,037	539 (52.0%)	696	270 (38.8%)	883	531 (60.1%)
Non-Hispanic Black	495	115	67 (58.3%)	251	59 (23.5%)	129	73 (56.6%)
Non-Hispanic Other Race	282	86	42 (48.8%)	109	28 (25.7%)	87	47 (54.0%)
Hispanic	735	254	117 (46.1%)	260	61 (23.5%)	221	97 (43.9%)
All Unique Clients	4,128	1,492	765 (51.3%)	1,316	418 (31.8%)	1,320	748 (56.7%)

Table 2. Odds Ratios of Clients Receiving Naloxone by Race and Ethnicity for Clients who Received Injection Kits, Smoking Kits, and both Injection Kits and Smoking Kits (RI, 2022)

Race and Ethnicity	All Clients	Unique Clients who Received Injection Kits: Odds Ratio (OR) of Receiving Naloxone (Lower, Upper 95% CI)	Unique Clients who Received Smoking Kits: OR of Receiving Naloxone (Lower, Upper 95% CI)	Unique Clients who Received Injection Kits and Smoking Kits: OR of Receiving Naloxone (Lower, Upper 95% CI)
Non-Hispanic White	1.00	1.00	1.00	1.00
Non-Hispanic Black	0.64 (0.53, 0.78)	1.28 (0.87, 1.91)	0.48 (0.35, 0.67)	0.86 (0.59, 1.26)
Non-Hispanic Other Race	0.68 (0.53, 0.87)	0.88 (0.57, 1.37)	0.55 (0.35, 0.86)	1.11 (0.64, 1.92)
Hispanic	0.57 (0.48, 0.67)	0.79 (0.60, 1.04)	0.48 (0.35, 0.67)	0.67 (0.40, 1.10)

and 48.8% of Other race clients received naloxone. Of the clients who received safer smoking kits, 38.8% of White clients, 23.5% of Black clients, 23.5% of Hispanic clients, and 25.7% of Other race clients received naloxone. Finally, of the clients who received both safer injection kits and safer smoking kits, 60.1% of White clients, 56.6% of Black clients, 43.9% of Hispanic clients, and 54.0% of Other race clients received naloxone.

We conducted further analyses to determine if there were racial and ethnic disparities in naloxone uptake among clients who received safer injection kits, safer smoking kits, or both types of kits (**Table 2**). Regardless of what types of kits clients received, those in non-White racial and ethnic groups had statistically significant lower odds of receiving naloxone. Compared to their White counterparts, Black clients had 0.64 lower odds (95% Confidence Interval (CI): 0.53, 0.78), Other race clients had 0.68 lower odds (95% CI: 0.53, 0.87), and Hispanic clients had 0.57 lower odds (95% CI: 0.48, 0.67) of receiving naloxone. No statistically significant difference was observed by race and ethnicity for clients who received safer injection kits and clients who received both types of kits. The clients in non-White racial and ethnic groups who received safer smoking kits had statistically significant lower odds of receiving naloxone. Compared to their White counterparts, Black clients who received smoking kits had 0.48 lower odds (95% CI: 0.35, 0.67), Other race clients had 0.55 lower odds (95% CI: 0.35, 0.86), and Hispanic clients had 0.48 lower odds (95% CI: 0.35, 0.67) of receiving naloxone.

DISCUSSION

This analysis confirmed two trends outreach workers have observed. People who smoke substances have a lower uptake of naloxone compared to people who inject drugs and there are racial and ethnic disparities in naloxone uptake. Evidence suggests that Black and Indigenous People of Color (BIPOC) are more likely to use stimulants than White individuals.⁹ Given the increased presence of synthetic opioids in the drug supply, individuals who use stimulants are at risk of opioid overdose.¹⁰ Among all clients, Black, Hispanic, and Other race clients had statistically significant lower odds of receiving naloxone compared to White clients in this analysis. Safer smoking kits were made available through the Lifespan Preventing Overdose and Naloxone Intervention (PONI) harm reduction hub in 2022 to increase engagement with the BIPOC community.¹¹ Despite this increased effort, stigma of opioid use still exists.¹² Many stimulant users may not perceive a benefit to receiving naloxone or fentanyl test strips when they are offered.¹³ In fact, data collected and analyzed by PONI and RIDOH's Harm Reduction Surveillance System found that 90.1% of respondents reported smoking substances, while 8.2% reported that they always use fentanyl test strips. Also, 22.9% of the survey respondents stated that they do not have naloxone.¹³

Data used in this analysis has limitations. This analysis provides a snapshot of the harm reduction efforts in RI, and only includes 2022 data from RIDOH-funded harm reduction organizations; clients may have received naloxone and harm

reduction supplies from other sources. Additionally, client codes may include data entry errors and clients may use various unique codes to preserve their anonymity.

Increasing safer smoking kit distribution can address disparities by creating more opportunities to engage stimulant users. Also, disaggregation of race and ethnicity data can inform future outreach efforts by unmasking racial inequities in overdoses and harm reduction supply uptake.¹⁴ Finally, the development of innovative harm reduction interventions that reach racial and ethnic groups disproportionately impacted by overdose is crucial.

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