

Background

As of September 2022, 29% of NYC residents had diagnosed COVID-19 disease and there have cumulatively been 184,000 and 41,803 COVID-19-related hospitalizations and deaths respectively, with Non-Hispanic Black and Hispanic New Yorkers dying of COVID-19 at twice the rate of White New Yorkers.

Racial and ethnic disparities in COVID-19 case rates, hospitalizations, and deaths reflect historic and ongoing structural racism, resulting in inequities in access to prevention and health care. People who use drugs (PWUD) are both more likely to become infected with COVID-19 and to have higher rates of COVID-19-associated hospitalization and death than the general population. Among PWUD, racial and ethnic disparities in COVID-19-related morbidity and mortality reflect disparities in the general US population.

Vaccination is a vital public health tool that has reduced illness and death due to many diseases and has eliminated some diseases. “Vaccine hesitancy” has emerged as a major concern for community health; however, “hesitancy” may reflect a) that people have questions about vaccination that are unanswered, b) lack of effective, consistent and clear public health messaging and prevalence of misinformation and disinformation in the media, and/or c) the impact of the historic exploitation of some communities and structural racism within the health care system. Currently, refusal of the COVID-19 vaccination poses a threat to public health.

Objective: To improve public health responses designed to increase COVID-19 vaccination among PWUD by exploring the knowledge, experience and attitudes of PWUD about vaccination generally and COVID-19 vaccination specifically in NYC in May-June 2021.

Methods

In-person street-based surveys in both English and Spanish with 100 PWUD were conducted. Eligibility included: age >18 years, reported use of illicit drugs in the prior 30 days, and not having received any dose of a COVID-19 vaccine. Surveys were conducted in both English and Spanish.

The survey focused on PWUDs’ a) perceptions of and experiences with vaccination, b) sources, uses of, and confidence in information about COVID-19, c) perceptions of COVID-19 and COVID-19 vaccination, and d) COVID-19 vaccine willingness.

The primary outcome of this analysis was the dichotomous response to the survey question “If you were offered COVID-19 vaccination right now would you get it?” Univariate descriptive statistics and bivariate analyses examining relationships between COVID-19 vaccine willingness and a range of socio-demographic factors and key thematic areas were conducted. R software was used for all analyses.

Survey Population

Of 144 potentially eligible individuals approached, 43 were ineligible due to not having used illicit drugs in the prior 30 days (n=17), already having been vaccinated against COVID-19 (n=12), or both (n=14)

Participants were mostly male (80%) and nearly 44% self-identified were Hispanic, with 68% of Hispanic participants reporting Puerto Rican ancestry. Most participants were between the ages of 30 and 59 years (90%).

One-third of participants reported having received services from syringe service programs (SSPs) in the past 30 days. 80% of participants reported receiving health or social services in the past 30 days.

Results

62 of 100 participants (62%) reported being unwilling to receive COVID-19 vaccination, yet 40% (25/62) were ambivalent about that decision.

A majority (83-82%) of participants reported altruistic beliefs about the role of vaccines in improving the health of their community, including one’s decision to receive a COVID-19. However, many also reported concerns about vaccine safety and the quality of information on vaccination.

We examined several pairs of questions to explore potential ambivalence about COVID-19 vaccination. (Below) These simultaneously held beliefs that appeared contradictory, suggesting COVID-19 vaccine-related ambivalence.

Question pairs to explore potential ambivalence about COVID-19 vaccination

Statement #1	% Yes, #1	Statement #2	% Yes, #2	% Yes, #1 & #2
Vaccine efficacy data are often fabricated	70%	Vaccines in general are effective	85%	56%
Pharmaceutical companies cover up vaccine dangers	82%	Vaccines are important for the health of their communities	83%	65%
People are deceived about general vaccine efficacy	76%	COVID-19 vaccination oneself was important for the health of others in the community.	82%	60%
Concerned about potential serious adverse effects	83%	Confident that COVID-19 vaccines are safe for people of their race/ethnicity	80%	65%

Seventy-five percent reported past 30-day use of harm reduction and/or substance use disorder (SUD) programs; of these, 89% and 79%, respectively, considered these programs to be trusted sources of COVID-19 information.

Those reporting that: 1) COVID-19 vaccines are safe for PWUD, 2) being vaccinated, including against COVID-19, was good for the health of their communities, and 3) trusting COVID-19 information from their healthcare providers, were more likely to report willingness to get vaccinated against COVID-19, respectively, (each p-value<0.05).

Limitations: COVID-19 changed rapidly during the initial months of the pandemic. Consequently, any assessment of perceptions reflects the specific time period in which the study was conducted. Convenience sampling frame, cross-sectional survey, NYC location, and eligibility criteria excluded PWUD who had received any COVID-19 doses, lead to a non-representative PWUD sample. Small sample sizes precluded some subgroup analyses.

Public Health Opportunities

Among surveyed PWUD, the degree of COVID-19 vaccine willingness was similar to findings from studies of contemporaneous US adult populations (40-80%) suggesting that PWUD may not be more difficult to engage in COVID-19 vaccination than the general population.

Our findings suggest that COVID-19 vaccine ambivalence expressed by PWUD may in part result from unaddressed questions and concerns and that those reporting not being willing to receive COVID-19 may not have firmly fixed beliefs, indicating a potential to build vaccine confidence through continuing education from trusted sources.

Altruistic beliefs, and the importance of community, were prevalent among participants; interventions and messaging should incorporate these values to encourage vaccine acceptance. Recognizing and resolving vaccine ambivalence, leveraging altruism, and messaging from trusted sources emphasizing collective and individual benefits of vaccination may be promising approaches.

COVID-19 vaccination messages that emphasize the collective benefits of an individual’s decision to be vaccinated may hold promise to increase vaccine acceptance among PWUD.

Engaging PWUD in evidence-based, scientifically accurate, and non-stigmatizing discussions, interventions, and services at venues where PWUD frequent and trust are needed to encourage vaccine acceptance.

NYC opened the first publicly recognized overdose prevention centers (OPCs) in the United States; OPCs are designed to reduce overdose mortality by providing a safe space for drug consumption. OPCs hold promise for the delivery of additional public health services such as COVID-19 vaccination.

Acknowledgements and Contact

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Corresponding Author: Ashly E Jordan, PhD, MPH, ajordan2@health.nyc.gov