Increasing Access to Buprenorphine in Safety-Net Primary Care Clinics: The New York City Buprenorphine Nurse Care Manager Initiative

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The Buprenorphine Nurse Care Manager Initiative (BNCMI) sought to increase access to opioid use disorder treatment in underserved New York City populations by expanding buprenorphine treatment capacity in safety-net primary care clinics.

During 2016 to 2020, BNCMI added 116 new buprenorphine providers across 27 BNCMI clinics, and 1212 patients were enrolled; most patients identified as Latinx or Hispanic and were Medicaid beneficiaries.

BNCMI increased access to buprenorphine, reached underserved populations, and is part of the New York City Health Department's multipronged approach to reducing opioid overdose deaths. (*Am J Public Health*. 2021;111:215–218. https://doi.org/10.2105/AJPH.2020.306000)

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Opioid overdose deaths are a public health crisis in New York City. In 2018, 1444 unintentional drug overdose deaths were reported in New York City; 80% involved an opioid.[1] These deaths are preventable.

Buprenorphine is a safe and effective medication for treatment of opioid use disorder that can be prescribed in primary care settings. Despite its effectiveness, buprenorphine is underused; 56% of US counties have no buprenorphine providers.[2] In addition, disparities in use exist by race/ethnicity and poverty level. National data indicate that patients who receive buprenorphine treatment for opioid use disorder are more likely to be White and to have low household poverty.[3] Similarly, in New York City, buprenorphine prescription rates have been inequitably concentrated in areas with the highest incomes and the lowest percentage of Black and Latinx or Hispanic residents.[4]

Underuse of buprenorphine is a result of multiple factors, including implementation barriers in primary care settings, such as insufficient nursing support, administrative support, time, and opioid use disorder education.[5]

INTERVENTION

To increase buprenorphine treatment access for underserved New York City populations, the New York City Department of Health and Mental Hygiene (DOHMH) funded establishment of the Buprenorphine Nurse Care Manager Initiative (BNCMI). This initiative expands the capacity (i.e., ability and volume) of primary care providers in safety-net settings (i.e., clinics whose population served is at least 35% Medicaid or Medicare beneficiaries, uninsured, or underinsured) to offer buprenorphine treatment. BNCMI was adapted from the Massachusetts Model of Office-Based Opioid Treatment With Buprenorphine.

BNCMI provides funding for nurse care managers as well as technical assistance, education, and mentorship to new buprenorphine providers in primary care clinics to begin offering buprenorphine treatment. Nurse care managers are registered nurses with backgrounds in substance use disorders or mental health; they facilitate screening and intake procedures, patient coordination, care management, pharmacy navigation, and other time-intensive care, and administrative responsibilities. In this way, nurse care managers support patients' treatment engagement and retention in care, freeing provider time to treat additional patients. BNCMI uses a harm reduction approach with strategies aimed at reducing negative consequences associated with drug use.[6]

The goals of BNCMI are to increase the number of new buprenorphine providers and the number of patients receiving buprenorphine treatment; serve patients who reside in high-poverty neighborhoods and who are Black and Latinx or Hispanic, thereby reducing inequitable access to buprenorphine treatment; and offer buprenorphine treatment that is aligned with harm reduction principles, including naloxone provision, fentanyl education, and a nonpunitive treatment approach.

PLACE AND TIME

BNCMI was established in 2016 in 10 safety-net primary care clinics across New York City. The initiative expanded in 2018 and, as of 2020, operates in 27 clinics; among these, 24 clinics are Federally Qualified Health Centers.

PERSON

BNCMI targets safety-net primary care providers with limited or no experience offering buprenorphine treatment and patients interested in receiving buprenorphine treatment.

PURPOSE

BNCMI is part of DOHMH's multipronged approach to reducing opioid overdose deaths in New York City, a key component of which is increasing access to effective medications for opioid use disorder. The initiative addresses the low rates of buprenorphine use in New York City, particularly in low-income neighborhoods with primarily Black and Latinx or Hispanic residents. Notably, buprenorphine is available in outpatient settings and can be taken at home, unlike methadone (the other gold standard treatment for opioid use disorder), which commonly requires in-person dosing at highly regulated and often stigmatized opioid treatment programs. DOHMH focused BNCMI on the primary care setting to reduce stigma and increase access for people with opioid use disorder who may not intersect with opioid treatment programs.

IMPLEMENTATION

Through a competitive grant, DOHMH selected 14 agencies to receive $150 000 per year to operate BNCMI. Some agencies run the initiative at a single location and others at multiple clinics.

At start-up, agencies identified a buprenorphine provider champion to advocate for the initiative with other staff and hired one full-time nurse care manager. Agencies identified at least four providers to begin offering buprenorphine treatment. All providers and nurse care managers attended the federally mandated buprenorphine waiver training. In addition, champions and nurse care managers received training on the model, harm reduction, and motivational interviewing. New nurse care managers shadowed experienced nurse care managers.

Clinics received technical assistance from DOHMH staff to support workflow design, billing and insurance, patient referrals, and pharmacy collaboration.

DOHMH provided individualized clinical mentorship (by buprenorphine experts) and facilitated quarterly learning communities for providers and nurse care managers. Learning communities included topics such as home induction, harm reduction, and racial equity. Additionally, nurse care managers participated in quarterly trainings on related topics, including trauma-informed care, hepatitis C, and care for people with justice involvement.

Clinics advertised buprenorphine treatment and developed warm handoff protocols with emergency departments, drug treatment programs, jails, and other community-based referral sources.

EVALUATION

BNCMI was evaluated in two domains: (1) number of new buprenorphine providers (defined as having little or no buprenorphine prescribing experience before the initiative) and (2) number of patients prescribed buprenorphine and their demographic characteristics from an enrollment intake survey, implemented in January 2017.

As of January 2020, 116 new buprenorphine providers (64 internists, 27 nurse practitioners, 17 family medicine physicians, four pediatricians, three physician assistants, and one obstetrician-gynecologist) started prescribing buprenorphine across the 27 clinics.

A total of 1212 patients (de-duplicated by enrollment site) enrolled during December 2016 to January 2020; among these, intake data were available for 993 patients. Most patients identified as men (74%), were Medicaid beneficiaries (72%), and identified as Latinx or Hispanic (42%) or Black (21%); 41% reported living in their own home (Table 1).

ADVERSE EFFECTS

No adverse effects were reported during the initiative.

SUSTAINABILITY

DOHMH continues to fund BNCMI, beyond the initial three-year commitment. The initiative is a public health funding

TABLE 1— Buprenorphine Nurse Care Manager Initiative Patient Demographic Characteristics at Intake: New York City, 2017–2020

Characteristic	No. (%)
Total completed patient intake surveys	993 (100)
Gender identity[a,b]	
Man	733 (74)
Woman	259 (26)
Race/ethnicity[a,c]	
Latinx or Hispanic	407 (42)
White	299 (31)
Black	203 (21)
Multiracial or other	51 (5)
Asian or Pacific Islander	10 (1)
Age, y[a]	
18–24	37 (4)
25–34	202 (20)
35–44	237 (24)
45–54	264 (27)
55–64	190 (19)
65–84	56 (6)
Payment method[a,d]	
Medicaid	699 (72)
Commercial insurance	93 (10)
Other	90 (9)
Medicare	62 (6)
Cash	29 (3)
Housing status[a]	
Own home	405 (41)
Staying with friends or family	277 (28)
Shelter	168 (17)
Supportive housing	64 (7)
Housing type unknown	32 (3)
Reports being homeless	17 (2)
Single room occupancy	16 (2)

Source. Nurse Care Manager Patient Baseline Surveys 2017–2020, extract date January 31, 2020.

[a]One patient was missing data on gender identity, 23 patients had missing data on race/ethnicity, seven patients had missing data on age, 20 patients had missing data on payment method, and 14 patients had missing data on housing status.

[b]Survey response options were "male" and "female" instead of "man" and "woman." Responses were recoded to "man" and "woman" to be consistent with gender expression terminology. Women includes transgender and cisgender women.

[c]Patients described the single race/ethnicity category they most identified with. Hispanic was a single race/ethnicity category on the intake survey. Since implementing the survey, the term "Latinx" has increasingly been recognized as a gender-neutral or nonbinary alternative to Latino or Latina. Therefore, to reflect this updated terminology, we use the term "Hispanic or Latinx." Of note, patients also had the option to select "other" and fill in a corresponding free text response with their own description; when patients described "other," we reviewed the provided description and recategorized into one of the single, predetermined race/ethnicity categories, multiracial, or other, as needed. Patients who described "other" as Middle Eastern and Trans-Caucasian were categorized as White.

[d]Medicaid category includes some patients who reported both Medicaid and Medicare. Other includes patients who reported having workers' compensation or being insured but did not specify if coverage was commercial or public.

priority, given the success in increasing the number of buprenorphine providers and delivering buprenorphine care to patients who are underserved. However, to support long-term expansion and sustainability, clinics must be able to bill third-party payers for substance use disorder care management delivered by nurses. At present, this is not a reimbursable service in New York State.

PUBLIC HEALTH SIGNIFICANCE

BNCMI successfully increased buprenorphine access in the primary care setting and reached underserved populations. Citywide buprenorphine prescribing indicators also increased over the period that BNCMI has been operational. Of note, race/ethnicity and income data are not collected when prescriptions are filled and therefore not reported here. The number of New York City residents who filled prescriptions increased by 20% during 2016 to 2019 (from 13 612 to 16 383 residents). Also, the number of buprenorphine prescriptions filled annually increased by 25% during this same period (from 107 867 to 134 647 prescriptions). In 2019, these indicators were the highest ever on record for New York City.[7] These trends are promising, suggesting that DOHMH's comprehensive approach to increasing buprenorphine access through multiple initiatives (including BNCMI) is having a population-level effect.

Similar interventions that target underserved patients and support providers in expanding buprenorphine capacity are necessary to reduce inequities in treatment access and to improve care for people with opioid use disorder. Local health departments have a crucial role in supporting expansion of effective treatment and should consider

implementing similar models as part of their approach to addressing the opioid crisis. AJPH

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CONTRIBUTORS

M. Kaplan-Dobbs led the writing of the article, designed and directed the initiative, and contributed to evaluation conceptualization and design and data analysis and interpretation. J. A. Kattan contributed to initiative design, evaluation conceptualization and design, data interpretation, and drafting and revising of the article. E. Tuazon contributed to evaluation conceptualization and design, data analysis and interpretation, and drafting and revising of the article. C. Jimenez contributed to evaluation design, data analysis and interpretation, and revising of the article. S. Saleh contributed to evaluation design and data collection. H. V. Kunins conceptualized the initiative, contributed to initiative design, and contributed to drafting and revising of the article.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

HUMAN PARTICIPANT PROTECTION

The New York City Department of Health and Mental Hygiene institutional review board determined this initiative to be program evaluation.

REFERENCES

1. Nolan ML, Mantha S, Tuazon E, Paone D. Unintentional drug poisoning (overdose) deaths in New York City in 2018. New York City Department of Health and Mental Hygiene. *Epi Data Brief*. August 2019;(116).
2. Andrilla CHA, Moore TE, Patterson DG, Larson EH. Geographic distribution of providers with a DEA waiver to prescribe buprenorphine for the treatment of opioid use disorder: a 5-year update. *J Rural Health*. 2019;35(1):108–112. https://doi.org/10.1111/jrh.12307
3. Duncan LG, Mendoza S, Hansen H. Buprenorphine maintenance for opioid dependence in public sector healthcare: benefits and barriers. *J Addict Med Ther Sci*. 2015;1(2):31–36. https://doi.org/10.17352/2455-3484.000008
4. Hansen HB, Siegel CE, Case BG, Bertollo DN, DiRocco D, Galanter M. Variation in use of buprenorphine and methadone treatment by racial, ethnic and income characteristics of residential social areas in New York City. *J Behav Health Serv Res*. 2013;40(3): 367–377. https://doi.org/10.1007/s11414-013-9341-3
5. Huhn AS, Dunn KE. Why aren't physicians prescribing more buprenorphine? *J Subst Abuse Treat*. 2017;78: 1–7. https://doi.org/10.1016/j.jsat.2017.04.005
6. National Harm Reduction Coalition. Principles of harm reduction. 2020. Available at: https://harmreduction.org/about-us/principles-of-harm-reduction. Accessed December 10, 2019.
7. New York State, Department of Health, Bureau of Narcotics Enforcement. Prescription Monitoring Program. 2020. Retrieved from New York City Department of Health and Mental Hygiene, Bureau of Alcohol and Drug Use Prevention Care and Treatment surveillance data set, not publicly available.