

Public Health Lessons Learned in Responding to COVID-19 Among People Experiencing Homelessness in the United States

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Homelessness is a serious public health issue. The number of people experiencing homelessness (PEH) has been increasing since 2016; on a single night in January 2020, an estimated 580 000 people were experiencing homelessness in the United States, more than 225 000 of whom were unsheltered (ie, having a primary nighttime location that is not designated as a regular sleeping accommodation, such as on the streets or in abandoned buildings, vehicles, or encampments).¹ Compared with the general US population, PEH experience elevated rates of infectious and noninfectious disease and face 3 to 10 times higher mortality rates.^{2,3} In the United States, non-Hispanic Black people were 3.5 times more likely than non-Hispanic White people to experience homelessness.⁴ American Indian/Alaska Native people also have disproportionately high rates of homelessness compared with non-Hispanic White people.⁵

Increasing rates of homelessness and the COVID-19 pandemic are concurrent crises. As of August 1, 2021, more than 35 million COVID-19 cases and more than 612 000 COVID-19 deaths had occurred in the United States.⁶ Overall, the incidence of COVID-19 among PEH is difficult to quantify because housing status is often not reported through surveillance systems, medical records, or death certificates. However, COVID-19 spreads easily in homeless shelters, where physical distancing can be difficult to maintain and new residents with unknown exposure histories enter regularly.^{7,8} In addition, PEH are more likely than the general population to have comorbidities or untreated medical conditions that might increase their risk of severe illness from COVID-19.³ Hospitalization from COVID-19 is also more likely among PEH compared with the general US population.⁹

At the Centers for Disease Control and Prevention (CDC), a unit comprising epidemiologists, physicians, and health

scientists was developed in March 2020 to respond to COVID-19 among PEH within the COVID-19 response structure. At the Minnesota Department of Health (MDH), an analogous unit was also developed in March 2020. Each unit was responsible for tracking data, providing technical assistance, and developing guidance specific to homelessness throughout the COVID-19 pandemic. We summarize reflections based on the experiences of these units from March 2020 through June 2021. We describe categories of lessons learned so far with the goal of informing public health professionals in the continued response to COVID-19 and future infectious disease threats.

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Lessons Learned in Responding to COVID-19 Among PEH

We describe 4 public health lessons that we learned during the pandemic response among PEH from the national perspective of CDC and a state perspective from MDH. These categories include multi-agency partnerships, tailored approaches for PEH, data collection on homelessness, and balancing goals between public health and homeless services.

Multi-Agency Partnerships

Effectively responding to the COVID-19 pandemic among PEH required either strengthening or establishing partnerships both horizontally (among various agencies within the same level of government) and vertically (among local, state, and federal government; community-based organizations; and PEH).

Horizontal coordination. Responding to the COVID-19 pandemic among PEH crossed 4 horizontal sectors: emergency response, public health, health care, and homeless services. Providing a coordinated response to the COVID-19 pandemic has required strengthening, or in some cases establishing, multi-agency and multisector partnerships. Prior to COVID-19, many communities had minimal collaboration between health departments and homeless service systems. As a result, many communities were developing partnerships across these systems at the same time as they were responding to COVID-19. Weekly (sometimes daily) multi-agency meetings became essential to provide coordinated messaging. At state and local levels, partnerships allowed health departments, housing agencies, emergency management teams, homeless service providers, and health care providers to implement a synergistic response to improve access to testing for SARS-CoV-2 (the virus that causes COVID-19), provide safe spaces for quarantine and isolation, and expand vaccination efforts. Many communities faced a steep learning curve in the early stages of the COVID-19 pandemic response, as homeless service providers learned about emergency response protocols and public health and emergency response staff learned about homelessness. An understanding of the roles, authority, and capacity of agencies in each sector has been necessary to work effectively together, which highlights the importance of maintaining these partnerships after the COVID-19 pandemic to assure a comprehensive response to future public health threats.

Vertical coordination. Vertical partnerships among agencies at every level of government ensured a bidirectional flow of communication and learning. In some situations, state and local public health agencies worked directly with PEH and homeless service providers to discuss COVID-19 prevention guidance, partner on data report planning, and exchange information on focus areas and community needs during the

response. Direct connection to PEH and homeless service providers was important because it illuminated their needs, priorities, and preferences. Federal, state, and local public health departments connected regularly with homeless shelters and other service providers to understand the reality of the COVID-19 pandemic on the ground. They hosted webinars, conferences, and technical assistance calls to share updates on case trends and to provide new guidance based on emerging data.

The Role of Tailored Approaches

Homelessness presents distinct challenges to reducing the spread of COVID-19. As a result, public health recommendations needed to be tailored to homeless service sites and encampment settings and the context of the daily life of PEH. We describe several tailored approaches for shelter and encampment settings, isolation protocols, testing for SARS-CoV-2, contact tracing and quarantine, vaccination, and overcoming other structural barriers to COVID-19 prevention among PEH. However, more data are needed to inform best practices.

Shelter and encampment settings. COVID-19 prevention guidance specific to homeless shelters and encampments was necessary because of differences in the demographic characteristics and facility types compared with other congregate settings. In many jurisdictions, local and state public health agencies worked closely with homeless service providers to comply with COVID-19 prevention guidance, identify alternate shelter facilities, and troubleshoot challenges. As an example, MDH used CDC's COVID-19 Infection Control Inventory and Planning Tool for Homeless Service Providers to facilitate conversations with homeless service providers and provide actionable recommendations.¹⁰ Many communities also opened non-congregate sheltering options, often in hotels, to protect people at high risk for severe disease from COVID-19, which also helped decompress traditional shelters.

In addition, nuanced guidance for unsheltered homelessness was necessary. Although COVID-19 prevalence has been shown to be lower among people sleeping outside than among those in shelters, unsheltered homelessness is associated with several other health risks.¹¹ Both CDC and MDH provided guidance recommending that people living in encampments not be moved unless there was a health risk that outweighed the risks associated with disbanding camps during the COVID-19 pandemic.¹²

Isolation protocols. Implementation of isolation for PEH with COVID-19 symptoms or confirmed infection required specific considerations. In most jurisdictions, isolation for PEH involved the creation of designated space for isolation in shelters or the use of alternate care sites, hospitals, or temporary isolation locations (often through leasing

hotels). State and local governments struggled to assess the appropriate number of isolation spaces needed because of fluctuations in the number of COVID-19 cases among PEH. In Minnesota, as in other locations, isolation hotels could be nearly empty during periods when the number of cases was low among PEH. At other times, and often with little warning, the number of COVID-19 cases would surge, requiring local public health agencies to restrict eligibility for accessing isolation rooms and, in some cases, group together SARS-CoV-2-positive shelter guests in shelters. Ensuring people felt comfortable in isolation housing and would stay for their full isolation period was another challenge that necessitated services adapted to PEH, such as case work and mental health support. In Minnesota, counties differed greatly in the type and level of supports provided in isolation spaces, from offering exclusively remote assistance to having on-site medical teams. Respite care facilities, which provide care for PEH not ill enough to remain in a hospital, can serve as a national model for the type of care and services needed in isolation spaces.¹³ Despite the challenges, isolation hotels were an effective approach to hosting patients with mild to moderate COVID-19 symptoms who did not require hospitalization and minimized further COVID-19 transmission in congregate settings.^{14,15}

Testing. Testing was a critical COVID-19 prevention strategy for homeless shelters and encampments because it allowed for interruption of transmission through identification and isolation of both symptomatic and asymptomatic COVID-19 cases. However, clinic-based testing, drive-through testing sites, online pre-registration, and identification requirements created barriers to testing for PEH. CDC recommendations emphasized the need for quick access to testing for PEH with symptoms, those who were close contacts of people with confirmed COVID-19, and regular screening testing of clients without symptoms to identify cases early and prevent outbreaks.¹⁶ On the ground, bringing SARS-CoV-2 testing to shelters, having testing administered by trusted health care partners, and ensuring that test results were not a barrier to shelter admission were critical.

Contact tracing and quarantine. COVID-19 contact tracing among both unsheltered and sheltered PEH was complex because of mobility, crowding, and close interactions of clients and staff. Quantitative evidence showed that few contacts can be elicited from PEH with confirmed COVID-19.¹⁷ Therefore, CDC recommended location-based contact tracing, with the understanding that if there was a confirmed COVID-19 case in someone who spent time in a homeless service site, it was likely that many people would have been considered exposed.¹⁸ Because of the difficulty in conducting individual-level contact tracing and, therefore, identifying exposed people, quarantine was often not conducted for individual PEH.

Vaccination for COVID-19. As with testing, many PEH were able to access vaccinations only when they were made available at homeless service provider sites. In Minnesota, planning efforts for COVID-19 vaccination outreach incorporated input from PEH, homeless service providers, street outreach teams, Health Care for the Homeless providers, health care systems, local public health departments, and the state health department. Challenges for COVID-19 vaccination programs for PEH included disagreement among partners concerning prioritization for PEH when vaccine supplies were limited, ensuring multiple access points for vaccination, avoiding registration systems that required internet access or home addresses, supporting series completion for products with 2 doses, and promoting vaccine confidence among PEH and staff in homeless service settings. In addition, ensuring racial and ethnic equity in vaccine access among PEH required deliberate consideration and discussion among partners. Identifying best practices to improve vaccine coverage among PEH requires further evaluation.

Structural barriers to prevention. Some aspects of COVID-19 prevention among PEH have required structural or service support. For example, early in the COVID-19 pandemic, a study in Atlanta, Georgia, found that PEH reported awareness of hand-washing practices but lacked access to sinks.¹⁹ Similarly, providing services for mental health and substance use disorders to support PEH in isolation has been shown to be necessary to successfully retain PEH for the duration of their isolation.¹⁵

Data Collection and Confidentiality

The critical importance of data collection specific to subpopulations during a pandemic response cannot be overstated. However, although rigorous surveillance systems for tracking COVID-19 cases and vaccinations exist, data on housing status are often not captured. On a national level, alternative data sources such as crowd-sourced data, media reports, and syndromic surveillance were necessary to maintain situational awareness of outbreaks and case trends.²⁰ Some local and state jurisdictions have been able to track COVID-19 cases among PEH through linkages to homeless service systems (such as the Homeless Management Information System) or by creating housing status reporting requirements.²¹ However, 2 data confidentiality issues can create complexity in these linkages: (1) COVID-19 test results are protected health information, and (2) homeless service access information is kept confidential. Because sharing both test results and housing status between agencies is critical to understand the incidence of disease and prevent transmission, establishing data-sharing agreements and secure data-sharing processes remains a key objective.

Similarly, COVID-19 vaccine administration data reported to a jurisdiction's immunization information systems (IIS) do not uniformly capture housing status. Although the address field can be used to provide information about homelessness, the use of this field is inconsistent across jurisdictions. This

inconsistency created challenges to understanding COVID-19 vaccine coverage among PEH. To resolve this issue in Minnesota, MDH and Hennepin Healthcare Research Institute partnered with the Institute for Community Alliances to link Homeless Management Information System data, electronic health records, and IIS vaccination records. An algorithm was used to conduct the match, eliminating the risk of disclosing personally identifying information.

Balancing Goals Between Public Health and Homeless Services

During the COVID-19 response, some issues required careful navigation to balance the sometimes divergent goals of public health and homeless services. For example, some public health actions could limit access to homeless services, including closures and decompression of shelter facilities, requiring negative COVID-19 tests for entry, or requiring proof of COVID-19 vaccination for entry. To avoid limitations on access to homeless services, public health recommendations often emphasized the critical nature of homeless services and the need to ensure that COVID-19 interventions did not create barriers to service.

Furthermore, homeless service providers often had to adapt to changes in homeless service provision and implement COVID-19 interventions at the same time. Many staff were asked to step into roles typically outside their scope, such as symptom screening or operating isolation and quarantine spaces. Additional staff were needed to fill in for volunteers who stayed home or staff who were in isolation or quarantine. In Minnesota, state and local government recruited mental health and drug treatment program staff and AmeriCorps members to staff temporary hotel shelters and isolation spaces. Staff were also retained by using state funds to offer hazard pay or extra sick leave. A state-operated surge staffing pool was also available if at least 1 staff member or person experiencing homelessness had tested positive for COVID-19 in a shelter.

The Way Forward

One of the most important lessons we have learned during the COVID-19 pandemic is that, despite evidence of vulnerability and increased risk, it is difficult to ensure that public health protections reach PEH. Furthermore, because the experience of homelessness is racially and ethnically inequitable, the inability to reach PEH may perpetuate disparities in COVID-19 outcomes. In addition to the strategies described previously, centering equity, decreasing stigma, understanding historical trauma, and offering organizational training at all levels of leadership can improve the ability for public health and emergency systems to recognize the needs of PEH.

The COVID-19 pandemic response has been ongoing for more than 2 years, cases and outbreaks of COVID-19 continue to be a threat, and other infectious diseases continue to emerge among PEH.^{22,23} Based on these lessons learned,

formal collaborations and sustainable partnerships among the public health system, health care system, and homeless service system—at national, state, local, and individual levels—may help address long-standing, systemic disparities in primary prevention for PEH. Tools for essential disease prevention among PEH (eg, standards of shelter safety and health) are needed. Housing status should be proactively incorporated into epidemiological data systems and disease prevention plans. Finally, housing solutions to prevent and address homelessness would alleviate many risks that PEH experience. As we learn together through this experience, we can help ensure that everyone, no matter their circumstances, can be protected from infectious diseases.

Disclaimer

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