Clinical

Caring for the Homeless During the COVID-19 Pandemic

Urgent message: Executive orders to shelter in place and advice from public health officials to stay "home" unless you absolutely have to go out or are deemed an essential worker lose their meaning for those without a place to lay their heads. Whether you view homeless Americans as ordinary people who may have had a few bad breaks or a blight on society, the fact is there are public health implications when anyone with a highly contagious disease is left without medical care.

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helter at home. Wash your hands. Use a tissue and properly dispose of it. See your primary care if you are not feeling well. The advice goes on and on. But what if you are homeless? What if you do not have ready access to soap and water, or hand sanitizer, or tissues, or medical care?

Universally, efforts to contain and mitigate pandemic diseases such as COVID-19 leave out a vulnerable population: people experiencing homelessness (PEH). An estimated 575,000 Americans are homeless.¹ The current COVID-19 outbreak will likely wreak havoc in PEH due to higher susceptibility to illness, suboptimal personal hygiene and sanitation, limited ability to self-quarantine, and difficulty accessing medical care.

PEH are more likely to suffer from chronic and uncontrolled illnesses such as chronic obstructive pulmonary disease, diabetes, and hypertension, which place them at higher risk for complications due to COVID-19.² The current pandemic is expected to cause up to 21,000 hospitalizations and 3,400 deaths among PEH.³

The goal of this article is to describe the challenges specific to pandemic preparedness for PEH and to present strategies to ensure their health and safety during the COVID-19 crisis.

Adoption and integration of the recommendations and resources from government, healthcare, and national housing organizations are critical in overcoming system deficiencies that impact the health of PEH.



National emergency declarations such as the 1135 and the 1115 Medicaid waivers are designed to afford states more flexibility in addressing the unique needs of PEH by assisting with coverage of uninsured people.

Public health agencies at all levels, ranging from the Centers for Disease Control to local health departments,

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Table 1. Number and percentage of residents and staff members with COVID-19 diagnosed by testing, symptom screening, or independent healthcare evaluation at three Seattle and King County (WA) homeless shelters and day centers, March 30–April 11, 2020

Method of diagnosis	Number (%) with COVID-19 diagnosis	
	Residents assessed (N=195)	Staff members assessed (N=38)
Testing event 1	15 (8)	4 (11)
Testing event 2	16 (8)	2 (5)
Symptom screening	2 (1)	_
Evaluated elsewhere	2 (1)	2 (5)
Total	35 (18)	8 (21)

Adapted from: Tobolowsky FA, Gonzales E, Self JL, et al. COVID-19 Outbreak Among Three Affiliated Homeless Service Sites — King County, Washington, 2020. MMWR Morb Mortal Wkly Rep. 2020;69:523–526.

strive to detect, prevent, and respond to pandemics and assist with provision of non-food supplies and personal protective equipment (PPE).

Medical organizations from regional health systems, hospitals, and primary care clinics to urgent care centers serve as the infrastructure for provision of care for patients with acute medical needs.

The Department of Housing and Urban Development, local housing authorities and shelters, and transitional homes must coordinate to optimize the use of limited funding and resources to provide safe accommodations for PEH. Researchers estimate that it may cost as much as \$11.5 billion to provide 400,000 new shelter beds, including approximately 200,000 beds suitable for isolation/quarantine to care for PEH at risk for or suffering from COVID-19.¹ Fortunately, Congress is responding to the coronavirus pandemic by developing a relief package to provide billions of dollars for state and local governments to provide emergency protective measures such as shelter and other critical services for PEH.

Barriers to Mitigating Spread of COVID-19 in Homeless Populations

Congregate living environment

Everything about the shelter environment promotes group activities, including sleeping, eating, and socializing, usually within a confined space. Of concern is the potential for widespread transmission of COVID-19 among PEH in shelters due to inadequate access to hygiene fundamentals such as soap, clean water, adequate ventilation, and sanitation. The situation is further complicated because disseminating up-to-date information about COVID-19, particularly regarding the need for social distancing and hand washing, has been hampered by limited access to the internet or other media.

Trimorbid conditions among PEH

The high prevalence of concurrent physical, mental health, and substance abuse problems (ie, trimorbidity) among PEH place them at higher risk for COVID-19-related morbidity and mortality and impedes their access to medical care. Some models estimate PEH who contract COVID-19 are twice as likely to require hospitalization, 2–4 times more likely to require critical care, and 2–3 times more likely to die.³ In addition to baseline comorbidities, limited access to nutritious food further puts this population at risk for poor outcomes.

Shelter staffing issues

Shelters usually depend on volunteer staff for day-today operations. Staffing shortages may occur as volunteers (often older individuals with underlying medical conditions) are forced to stay home due to concerns for their own health. Shelters may lack appropriate supplies (eg, PPE, disinfectant cleaning products, adequate sinks/ showers) needed to prevent viral spread. Staff who continue to work require training in medical-grade facility cleaning, screening procedures for COVID-19, and techniques on how to protect themselves. It may also be necessary to provide psychological and behavioral resources to reduce stress and help staff cope.

Infection Prevention for Homeless Shelters *Hand washing*

Unfortunately, the recommended preventive measures are not easily accomplished for PEH for reasons previously mentioned. Motivating and convincing people to change their behaviors is difficult under the best conditions. Education, environmental, and policy changes may all play a role in encouraging new practices such as handwashing. Shelters should provide verbal and posted information about the dangers of COVID-19 and stress the need to wash hands, contain coughs, self-quarantine as able, and other pandemic-specific behavioral recommendations. The CDC provides informational signs that are ready to print and post which explain symptoms of respiratory illness and the importance of self-care and hygiene. Environmental changes to consider include adding portable sinks to increase access to handwashing, and/or adding hand sanitizer (at least 60% alcohol solutions) at all points of entry and exit. All surfaces (especially those commonly handled such as doorknobs, faucets, phones) should be routinely cleaned and disinfected with products identified as effective against SARS CoV-2. Two percent chlorine bleach solution (1 tablespoon of bleach in 1 quart of water) is effective. Collaboration with public health agencies may provide a path for obtaining needed supplies for shelter personnel such as gloves, masks, goggles, cleaning supplies, thermometers (ideally 1 for every 10 people), and extra linens.

Social distancing

The goal of social distancing is to limit transmissibility of the virus by restricting the number of people in any given place simultaneously. The standard recommendation is that people stand at least 6 feet apart and minimize face-to-face interactions. It is important to explain to shelter guests and staff why social distancing is so important. Guests should wear masks when showing signs of COVID-19 (fever, cough, dyspnea). Shelter staff should be masked when interacting with symptomatic guests, cleaning, or entering an area where a symptomatic person or someone who may be exposed to a symptomatic person has been. Anyone in close contact with a symptomatic person should ideally have a mask, eye protection or face shield, and gloves. Nonessential services should be eliminated to reduce the number of people and promote social distancing among all staff, guests, and vendors.

Experts recommend reducing the number of residents per shelter, ensuring at least 100 square feet of space per bed, aligning beds so people sleep head-to-toe, using temporary barriers between beds, and improving air circulation and ventilation in the shelter.⁴

Mealtimes should be staggered to reduce crowding in shared eating facilities.

Similarly, bath times should be staggered to reduce number using shower facilities at once. Designating one bathroom for ill guests, renting additional sinks to facilitate handwashing practices, and ensuring bathrooms have soap and drying materials for handwashing is also important.

The number of people in recreation areas at one time should be reduced, and chairs spaced at least 6 feet apart. Public or nonessential group activities, events, and visitors should be cancelled. For essential activities, the number of attendees at one time should be limited to less than 10.

Preemptive cohorting

It is important to identify individuals at high risk for COVID-19-related morbidity/mortality as early as possible in order to quarantine them, even if asymptomatic. Guests who are over 60 years of age, have diabetes, take immunosuppressive drugs or chemotherapy, have an autoimmune disease, or have lung or heart disease will likely benefit from a preemptive move to a setting where the risk of contracting COVID-19 is lower. Emergency accommodations such as vacant hotels or underutilized facilities often provide space for private sleeping and bathing.

Shelter Policies and Procedures for Isolation Designation of isolation room and screening processes

Each shelter will need to develop a protocol for screening all shelter guests for exposure, symptoms, and signs (body temperature and pulse oximetry readings) in order to identify the need for isolation. Individuals who screen positive should be provided a mask and isolated in a predesignated area near a bathroom within the shelter (even office space works). The guest should stay in the room and have meals brought to them. The room and bathroom should be cleaned more frequently and there should be hand sanitizer, tissues, and waste can at bedside. The number of people and staff in contact with a guest with suspected COVID-19 should be minimized. If anyone exhibits severe symptoms such as shortness of breath, cyanosis, chest pain, dizziness, confusion/ altered level of consciousness, or seizures, 911 should be called immediately.

Isolation process

The guest's primary care physician should be contacted if they have one, as should the community liaison to assign the guest to a new isolation site (typically a local hotel). Ideally, facilities have been identified that can accommodate special circumstances based on gender, age, substance use, and/or history of mental illness. An involuntary isolation order signed by the county health commissioner may be issued requiring the guest to stay at the shelter or other designated location.

Other levels of quarantine include voluntary and

involuntary, by court order. The county health department typically will visit the guest to conduct an initial health assessment and provide any necessary healthcare items, such as a thermometer for daily monitoring. Daily phone calls from a public health nurse may be instituted to verify the guest has remained in isolation and symptoms are not worsening.

Transferring to outside facility for isolation

Guests being transferred to another facility should be informed of expectations for packing limited belongings, the medical transportation process, need for the guest and driver to wear appropriate PPE, the process for guest intake at the new facility, and expectations for staying in the new room (eg, no visitors, no use of drugs/alcohol). Food, services, medications, and other support are typically provided, although guests with complex medical problems may require additional coordination.

Testing for COVID-19

Current CDC recommendations are to consider testing symptomatic patients based on clinical judgement. (Those recommendations change frequently, so it would be advisable to consult the CDC website frequently for updates.) The CDC prioritizes COVID-19 testing in hospitalized patients with signs and symptoms of infection, high-risk symptomatic patients with underlying conditions, and symptomatic patients who have had close contact with suspected or confirmed COVID-19.⁵ Any patient who is classified as a person under investigation (PUI) for COVID-19 should be reported to the state health department and CDC's Emergency Operations Center. Other causes of illness (such as influenza) should be ruled out as able. Patients with mild illness who are otherwise healthy should stay at the shelter under selfquarantine. Higher-risk patients with mild illness should consult a healthcare provider.

Cleaning vacated spaces

Once a guest has vacated the shelter, common areas and rooms the ill person used should be cleaned and disinfected thoroughly. The door should be closed to seal off sleeping quarters and the windows opened for at least 24 hours, if possible, before cleaning bathrooms. Cleaning staff should wear appropriate gloves, gowns, and PPE. Do not shake dirty laundry, but wash linens and clothing left behind separately from other shelter linens.

Administrative records

Isolation protocols should include tracking the daily census; screening results, including body temperature of staff and guests; stages of disease among guests (exposure, pending tests, symptomatic vs asymptomatic, recovered); status of isolation room guests; supply and equipment inventory; and status of relocated guests.

Criteria for release from isolation

In order to be released from isolation, the PUI must have had at least 3 days since resolution of symptoms, at least 3 days of no fever without medication, and at least 7 days since onset of symptoms. Persons who have confirmed COVID-19 and had symptoms must exhibit a similar resolution of fever and symptoms, as well as a negative PCR test from two consecutive swabs collected at least 24 hours apart.

Summary

The current COVID-19 pandemic presents a crisis for PEH largely due to the negative synergistic effect of the virus's virulence and transmissibility and the poor baseline health of this population. There are definite steps that federal, state, and local government and health organizations can take to assist and aid agencies that serve PEH. By implementing education, training, and targeted protocols, shelters can leverage existing resources to improve hygiene, sanitation, social distancing, screening for fever and hypoxia, and isolation protocols to protect this vulnerable population.

The success of providing care for PEH during this crisis will depend on the alignment of public health, medical centers and providers, state and local policy makers, government agencies, and the public around a common goal of ensuring the health and safety of PEH.

References

1. U.S. Department of Housing and Urban Development. The 2019 Annual Homeless Assessment Report (AHAR) to Congress. PART 1: Point-in-Time Estimates of Homelessness. Available at: https://files.hudexchange.info/resources/documents/2019-AHAR-Part-1.pdf. Accessed June 9, 2020.

5. Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19). Evaluating & Testing. Available at: https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinicalcriteria.html.

^{2.} Landis SH, Muellerova H, Mannino DM, et al. Continuing to confront COPD international patient survey: methods, COPD prevalence, and disease burden in 2012-2013. *Int J Chron Obstruc Pulmon Dis.* 2014;9:597-611.

Caramelo F, Ferreira N, Oliveiros B. Estimation of risk factors for COVID-19 mortalitypreliminary results. medRxiv. Available at: https://www.medrxiv.org/content/10.1101/ 2020.02.24.20027268v1. Accessed June 9, 2020.

^{4.} Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19). Interim Guidance on People Experiencing Unsheltered Homelessness. Available at: https://www.cdc.gov/coronavirus/2019-ncov/community/homeless-shelters/unshelteredhomelessness.html. Accessed June 9, 2020.