Hard to reach: COVID-19 responses and the complexities of homelessness

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The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic has caused more than 954 000 deaths worldwide to date,[1] but the burden of morbidity and mortality has fallen unevenly on particular countries and population groups. Worldwide, COVID-19 has been recognised as a potential public health problem among people experiencing homelessness and other vulnerable cohorts such as prisoners.[2–4] Broadly, reduced access to health care and basic sanitation, the potential for mobility between services and crowding within facilities, the greater sharing of resources between individuals, substance-seeking behaviours, economic need resulting in employment such as survival sex work,[5] and underlying health conditions put such individuals theoretically more at risk of morbidity and mortality from COVID-19. There is growing evidence, however, of regional differences in the impact of COVID-19 on the socially vulnerable.[6,7]

In the UK, concerns about the impact of COVID-19 on people experiencing homelessness led to a series of measures being put in place, including the COVID-PROTECT and COVID-CARE interventions in England. These interventions provided accommodation to homeless adults (COVID-PROTECT) and testing and medically supported accommodation to individuals with COVID-19 symptoms (COVID-CARE). Given their potential importance, Daniel Lewer and colleagues sought to evaluate the impact of these interventions, plus that of reduced mixing with the general population and infection control measures in relevant accommodation settings, on levels of infection, hospitalisations, and deaths in people experiencing homelessness.[8] In their study published in *The Lancet Respiratory Medicine*, the authors found this package of measures to be highly effective, having potentially prevented 21 092 infections (95% prediction interval 19 777–22 147), 266 deaths (226–301), 1164 hospital admissions (1079–1254), and 338 intensive care unit admissions (305–374) among the homeless population to the end of May, 2020, and, if retained, have future potential to remain protective.[8]

The success of these measures is an important demonstration of what can be done in a time of crisis. Within the UK, people experiencing homelessness are often labelled as hard to reach from the perspective of health-care services. In reality, however, the situation is much more complex, reflecting a mixture of service barriers (eg, problems registering with a general practitioner,[9] requirements for proof of identity) and individual barriers (eg, language skills, mental health and trauma, lack of internet access, mistrust of authorities). Among those with no recourse to public funds, a condition imposed on migrants with limited leave to remain in the UK (eg, undocumented migrants), these issues are further exacerbated; individuals avoid health care because they believe they are not entitled to it and might also fear detention and deportation if they visit a doctor or hospital. They thus might actively resist being found or tracked.[10] Such complexities highlight the need for effective interventions to improve health among people experiencing homelessness and also how multifaceted and stakeholder inclusive they need to be.

As Lewer and colleagues document,[8] a further issue in the UK is the lack of data on the number of people experiencing homelessness and, indeed, the variability of circumstances captured by the term. Government estimates of rough sleeper numbers are substantially lower than those of agencies in the field, and there is great variation between sources in terms of who counts as homeless, with high numbers of so-called hidden homeless people living in temporary, insecure, or overcrowded accommodation.[11] Additionally, as noted above, there are people who, intentionally or not, do not come to the attention of services at all (eg, undocumented migrants and trafficked people). Such uncertainties make research and health improvement all the more difficult.

Outside England, Lewer and colleagues' findings provide interesting evidence to inform the COVID-19 response in settings with similar homeless populations and social contexts. Conversely and more broadly, there are questions as to why COVID-19 has had a differential impact on socially vulnerable individuals by locale. To what extent is this linked to national policies, health-care systems (eg, the accessibility of care), or behavioural (eg, sleeping outside), medical (eg, underlying conditions), or demographic (eg, age) factors? As our knowledge about the pathophysiology of COVID-19 increases, we will be better able to elucidate whether differences in the prevalence of important underlying comorbidities is a cause of this variability, and thus refine the approach to calculating the relative risk of mortality presented by Lewer and colleagues. In countries where access to health care is a key issue, the implications of long-term health issues from COVID-19 among people experiencing homelessness are all the greater and ought to be considered.

According to the evidence provided by Lewer and colleagues, measures in England to protect people experiencing homelessness during the COVID-19 pandemic have been effective to date and might remain so.[8] Celebrating the success of such measures not only involves their protection as the pandemic continues, but also consideration of how they could be expanded to further promote inclusion health by enhancing access to additional components of health care.

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Near-patient SARS-CoV-2 molecular platforms: new-old tools for new-old problems


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Testing for severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) remains a global issue of capacity, accuracy, and access. In their prospective, interventional, non-randomised, controlled trial published in *The Lancet Respiratory Medicine*, Nathan Brendish and colleagues[1] move COVID-19 diagnostics forward, both by expanding the repertoire of in-situ evaluated molecular platforms, and also methodologically, with a diagnostic controlled trial using clinical impact as a primary outcome measure, analogous to their previous work on other respiratory viruses.[2] As health-care providers and public health organisations continue to struggle with COVID-19 case finding, repurposing existing molecular platforms for this new pathogen, and revising historical laboratory centralisation towards point-of-care syndromic testing could provide some solutions.

In terms of test performance characteristics, Brendish and colleagues[1] show that the point-of-care QIAstat-Dx Respiratory SARS-CoV-2 Panel functions well. In their UK-based single-centre study, 499 patients were tested with the point-of-care system, placed in an acute medicine unit, while 555 patients (control group) were tested by PCR done an on-site Public Health England laboratory. Time to results, the primary outcome, was considerably faster in the point-of-care testing group (median 1·7 h [IQR 1·6–1·9]) than in the control group (21·3 h [16·0–27·9]; difference 19·6 h [95% CI 19·0–20·3], p<0·0001), with a hazard ratio of 4023 (95% CI 545–29 696) after controlling for age, sex, time of presentation, and severity of illness. The QIAstat-Dx Respiratory SARS-CoV-2 Panel also had high accuracy, with sensitivity of 99·4% (95% CI 96·9–100) and specificity of 98·6% (96·5–99·6), albeit evaluated against