



# People experiencing homelessness urgently need to be recognised as a high risk group for COVID-19

History shows that pandemics rarely impact on the population equally – the 14th century Black Death plague reduced the global population by a third, with the greatest number of deaths occurring among the poor.<sup>1</sup> Fast forward six centuries, and the same pandemic inequities are prevailing due to COVID-19; with Smith and Judd articulating that “while COVID-19 has the potential to impact everyone in society, these impacts will be felt differentially... the most vulnerable will be hardest hit”<sup>2</sup> in their recent Health Promotion Journal of Australia editorial.

In its response to the COVID-19 pandemic, the Australian Government has identified a number of high risk groups – including people who are older, immunosuppressed or chronically ill.<sup>3</sup> One clear omission from this list, however, is people experiencing homelessness; a group where chronic illness occurs at much higher rates than the general community,<sup>4</sup> and living circumstances render it extremely difficult to follow prevention measures such as frequent handwashing and self-isolation.<sup>5</sup>

In countries where the response to the vulnerability of people experiencing homelessness to COVID-19 has been quickest, such as the UK,<sup>6</sup> it is argued that the high rates of chronic disease among people experiencing homelessness places them at a high risk of death if infected with COVID-19.<sup>6</sup> Specific chronic diseases have emerged as risk factors for COVID-19-related mortality in the published data from Wuhan, China.<sup>7,8</sup> Mortality rates among patients hospitalised for COVID-19 were significantly higher for people with hypertension, cardiovascular disease, diabetes<sup>7</sup> and chronic respiratory disease.<sup>8</sup>

To assess the vulnerability of people experiencing homelessness in Australia to COVID-19, we are able to draw on recent linked administrative hospital admission and emergency department data from 2017 to 2019 for a cohort of 3943 patients from Homeless Healthcare, Australia's largest specialist homelessness General Practice, based in Perth, Western Australia. Ethics approval is provided by the Royal Perth Hospital Human Research Ethics Committee (RGS0000000075) and University of Western Australia Human Research Ethics Committee (RA/4/1/8813).

We found that 20% of this cohort (n = 783) had presented to hospital during the three-year period with a primary diagnosis for at least one chronic condition associated with COVID-19 mortality risk. Among this group, cardiovascular disease (9%) and diabetes (9%) were the most prevalent conditions; these were also the most prevalent COVID-19 mortality risk factors in the Chinese data.<sup>7</sup> For

a subset of this group (n = 799) who were sleeping rough in 2019, the prevalence of COVID-19 mortality risk factors was even higher. Furthermore, when age (>50 as people experiencing homelessness age around 20 years faster than the general population<sup>9</sup>) was considered as an additional COVID-19 risk factor, 34% of this subgroup of people were found to have at least one COVID-19 mortality risk factor in the last 3 years.

The health service use patterns for this group raise particular concerns with around five percent of individuals diagnosed with more than one COVID-19 mortality risk factor condition during the period, and some individuals diagnosed with as many as five. Moreover 13% (n = 525) of patients had multiple hospital attendances for a COVID-19 mortality risk factor condition during the period.

Beyond public health and social justice imperatives to protect vulnerable population groups from the risk of contracting or spreading COVID-19, Australia, like other countries, is urgently trying to minimise the impact of COVID-19 on the public health system.<sup>6</sup> Given people experiencing homelessness in Australia are over-represented in hospitals,<sup>10</sup> our data on the frequency of hospital presentations for COVID-19 mortality risk-related conditions among this cohort of nearly 4000 homeless patients, adds weight to the urgent need to prevent COVID-19 infection among this vulnerable group.

One of the clarion calls in many countries in the wake of COVID-19 has been to urgently get people who are sleeping rough off the street, with empty hotels and other accommodation facilities a natural solution for this. However, uptake of this in Australia to date has been variable, with many people continuing to sleep huddled together for safety in alcoves, parks, deserted buildings and overcrowded squats across the country.

Restrictions implemented to reduce the risks of COVID-19 have been inequitable in their impact, with homeless populations struggling to access the food relief, crisis shelter and social supports that they had available to them just two months ago. Accordingly, there is both a fiscal and moral imperative to overtly recognise people experiencing homelessness as a highly vulnerable population group. This is a group already over-represented in the Australian hospital system,<sup>10</sup> and the high prevalence of COVID-19 risk factors is a likely pathway to hospitalisation and avoidable deaths if action is not taken.

We make two key recommendations to address the heightened risk COVID-19 poses to people experiencing homelessness:

1. People experiencing homeless need to be urgently recognised as a high-risk group for COVID-19. It is critical that hospital, primary care and community-based services are aware of the COVID-19 risks that this group faces so that they can be proactive in prevention and detection.
2. We need a suite of response options for people with nowhere to “stay home”—ranging from short-term hotel accommodation to get people off the street, through to a dedicated facility for those who have COVID-19 and need medical care, or who are awaiting test results (self-isolation is near impossible in shared accommodation settings or while on the street).

Preventable chronic health conditions that pose an increased COVID-19-related mortality risk to vulnerable populations, such as people experiencing homelessness, are often closely-linked to range of social disadvantage (such as low socio-economic status, race and unemployment). There has been a need to address these socially-driven health inequities for some time; that need is even more urgent with the additional morality risk that COVID-19 poses. It is imperative that the health promotion community advocates for urgent action to provide suitable accommodation to reduce the COVID-19 infection and mortality risk in the short term. Additionally, policies that address the longer term need for accommodation and support for people experiencing homelessness, to help reduce the burden of preventable chronic disease, and the risk to life that this poses in the longer term should also be advocated for.

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#### CONFLICTS OF INTEREST

There is no conflicts of interest to declare.

#### ETHICS

Ethics approval for this research has been provided by Royal Perth Hospital Human Research Ethics Committee (RGS0000000075)

Craig Cumming<sup>1</sup> 

Lisa Wood<sup>1</sup> 

Andrew Davies<sup>2</sup>

<sup>1</sup>*School of Population and Global Health, University of Western Australia, Perth, WA, Australia*

*Email: craig.cumming@uwa.edu.au*

<sup>2</sup>*Homeless Healthcare, Perth, WA, Australia*

#### ORCID

Craig Cumming  <https://orcid.org/0000-0002-2556-3294>

Lisa Wood  <https://orcid.org/0000-0002-9196-8847>

#### REFERENCES

1. Ahmed F, Ahmed N, Pissarides C, Stiglitz J. Why inequality could spread COVID-19. *The Lancet*. 2020; [https://doi.org/10.1016/S2468-2667\(20\)30085-2](https://doi.org/10.1016/S2468-2667(20)30085-2).
2. Smith JA, Judd J. COVID-19: Vulnerability and the power of privilege in a pandemic. *Health Promot J Austr*. 2020;31(2):158–60.
3. Department of Health. What you need to know about coronavirus (COVID-19). 2020. [Available from: <https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/what-you-need-to-know-about-coronavirus-covid-19#who-is-most-at-risk>].
4. Aldridge RW, Menezes D, Lewer D, Cornes M, Evans H, Blackburn RM, et al. Causes of death among homeless people: a population-based cross-sectional study of linked hospitalisation and mortality data in England. *Wellcome Open Research*. 2019;4:49.
5. Wood L, Davies A, Khan Z. COVID-19 precautions—easier said than done when patients are homeless. *Med J Aust*. 2020;212(8):1.
6. Kirby T. Efforts escalate to protect homeless people from COVID-19 in UK. *Lancet Respir Med*. 2020; [https://doi.org/10.1016/S2213-2600\(20\)30160-0](https://doi.org/10.1016/S2213-2600(20)30160-0).
7. Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet*. 2020;395(10229):1054–62.
8. Caramelo F, Ferreira N, Oliveiros B. Estimation of risk factors for COVID-19 mortality—preliminary results. *medRxiv*. 2020; preprint.
9. Brown RT, Hemati K, Riley ED, Lee CT, Ponath C, Tieu L, et al. Geriatric conditions in a population-based sample of older homeless adults. *The Gerontologist*. 2017;57(4):757–66.
10. Stafford A, Wood L. Tackling health disparities for people who are homeless? Start with social determinants. *Int J Environ Res Public Health*. 2017;14(12):1535.