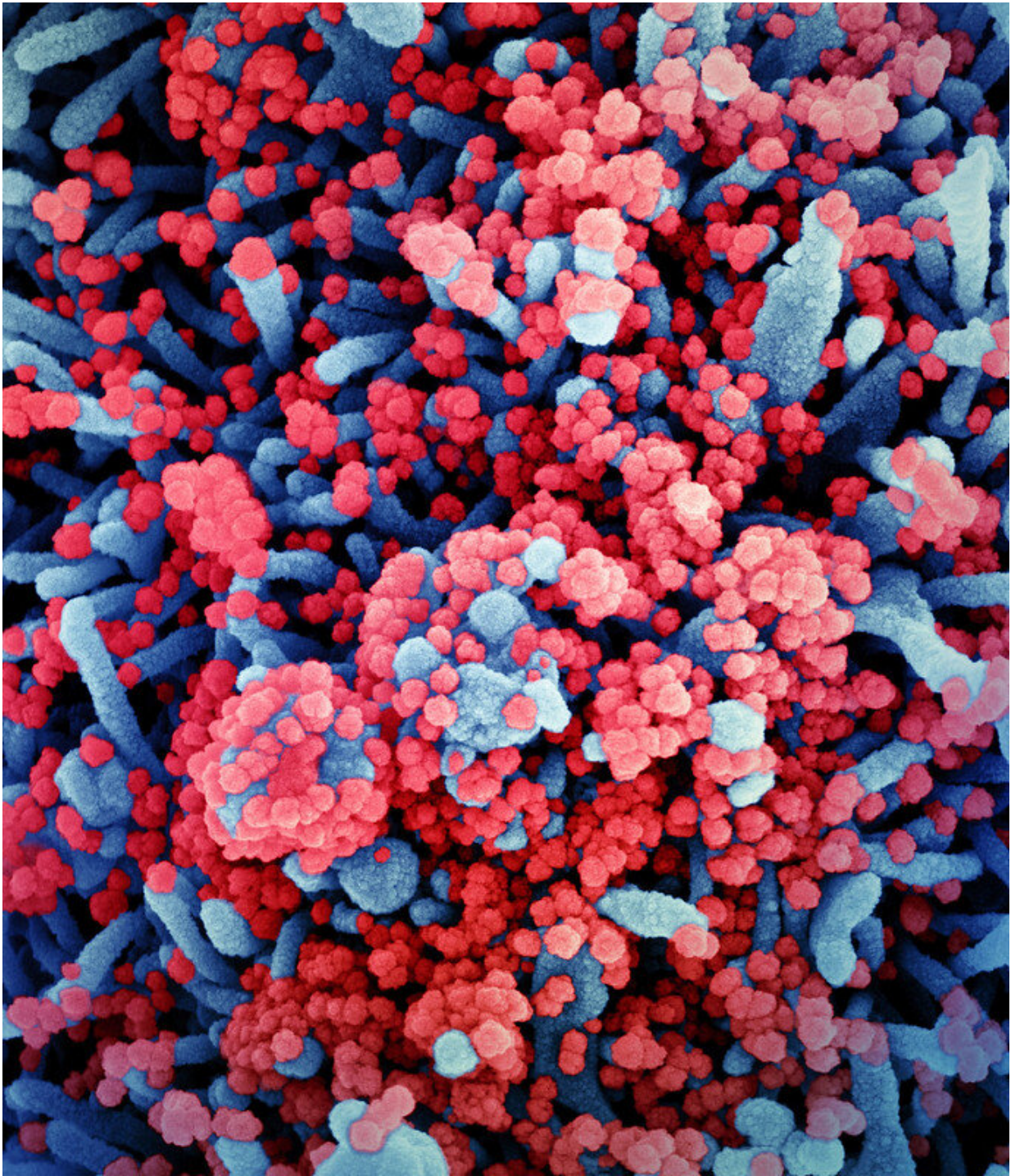


UK's preventive measures to shield homeless people from COVID-19 have prevented hundreds of deaths

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Colorized scanning electron micrograph of a cell (blue) heavily infected with SARS-CoV-2 virus particles (red), isolated from a patient sample. Image captured at the NIAID Integrated Research Facility (IRF) in Fort Detrick, Maryland. Credit: NIAID

Timely preventive measures against COVID-19 such as providing hotel room accommodation for homeless people in the UK are estimated to have prevented hundreds of deaths in this vulnerable population, according to research presented at this week's ESCMID Conference on Coronavirus Disease (ECCVID, held online 23-25 September) and published in *The Lancet Respiratory Medicine* ahead of a special conference session featuring *The Lancet* journals.

On March 26, 2020, the UK Government instructed local authorities to provide accommodation for people sleeping rough during the pandemic. Dormitory-style night shelters were subsequently closed, and special accommodation referred to as COVID-PROTECT was established, focusing on people sleeping in these facilities and those sleeping rough. This system was in fact designed, very rapidly, by some of the co-authors of this study.

"COVID-PROTECT accommodation has mainly been in commercial hotels that have been left otherwise vacant during the pandemic. Most people who were living in homeless hostels before the pandemic have stayed in their existing location, with increased [infection control](#)," explain the authors, who include Dan Lewer of the University College London (UCL) Collaborative Centre for Inclusion Health, London, UK, and colleagues.

In this study—the first study to model SARS-CoV-2 transmission in a [homeless population](#)—the researchers used computer modelling capable of assessing multiple possible scenarios to come to their estimates. It explored the effect of the pandemic on 46565 individuals experiencing homelessness: some 35817 living in 1065 hostels for [homeless people](#), 3616 sleeping in 143 night shelters, and 7132 sleeping outside.

They ran the model under scenarios looking at the effect of a 'second wave' and prevention measures that protect homeless people: specialist hotel accommodation, [infection](#) control in homeless settings, and reduced mixing with the general [population](#).

The authors used data from charities that support homeless people and information provided by hostels to estimate that 4% of the homeless population had acquired SARS-CoV-2 by May 31, 2020, based on surveillance data from hostels and also further data provided by the St Mungo's homeless charity, UK. The model estimated that 24 deaths actually occurred among homeless people in the first wave in England. However, it also estimated that the [preventative measures](#) imposed might have avoided over 21,000 infections, 266 deaths, 1164 [hospital admissions](#) and 338 ICU admissions among the homeless population.

If preventative measures are continued as they were during the first wave, the authors project a relatively small number of additional cases between June 1, 2020, and Jan 31, 2021, with over 1,700 new infections, 31 deaths, 122 hospital admissions, and 35 ICU admissions with a second wave in the general population.

However, if preventative measures are lifted, outbreaks in homeless settings might lead to larger numbers of infections and deaths, even with low incidence in the general population. In a scenario with no second wave and relaxed measures in homeless settings in England (effectively a return to the system homeless people experienced pre-pandemic), the model projects more than 12,000 new infections, 184 deaths, 733 hospital admissions, and 213 ICU admissions between June 1, 2020, and Jan 31, 2021.

The researchers did not model what they called the true nightmare scenario—a [second wave](#) and less preventive measures, because further surges of COVID-19 (as are currently happening in the UK) will lead to

more intensive preventive measures in the general population.

The authors say: "During the first wave of COVID-19 in England, our modelling suggests that people experiencing homelessness were protected by interventions in the general population, infection control in hostels, and closing of dormitory-style accommodation."

They add: "In England, homeless people living in hostels or in COVID-PROTECT have been offered testing when symptomatic, and occasionally mass screening exercises have been undertaken. We are not aware of any outbreaks in these settings to date. The results of our model suggest that closing of dormitory-style accommodation and increased infection control in single-room accommodation might have contributed to the absence of outbreaks."

They conclude: "The two main implications for practice are that night shelters should not be re-opened while there is sustained transmission of SARS-CoV-2 in the community, and that heightened infection control measures in hostels should be continued even when incidence of COVID-19 is low in the [general population](#). While there is uncertainty in the impact of COVID-19 on people experiencing homelessness, there is clear potential for outbreaks in hostels and night shelters. A large number of deaths can be avoided by maintaining the additional support that has so far been provided in England. Relaxing these measures would be risky."

Co-author Dr. Alistair Story, also of the University College London (UCL) Collaborative Centre for Inclusion Health, London, UK, adds: "COVID-19 cases are surging again. Our work demonstrates that safe single room accommodation for homeless people is life-saving and must be scaled and sustained to meet need. As the winter months approach, homeless people cannot face a choice between freezing to death or risking infection in crowded emergency night shelters. This is not an

acceptable choice in a civilised society."

More information: Dan Lewer et al. COVID-19 among people experiencing homelessness in England: a modelling study, *The Lancet Respiratory Medicine* (2020). [DOI: 10.1016/S2213-2600\(20\)30396-9](https://doi.org/10.1016/S2213-2600(20)30396-9)

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