

# Prevention of COVID-19 among populations experiencing multiple social exclusions

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Despite the development of effective vaccines against SARS-CoV-2 and an encouraging start to its roll out in many countries, in the coming months and years targeted prevention strategies will still be vital for socially marginalised groups. People experiencing multiple levels of exclusion related to homelessness, drug use, sex work, migration and their intersection can be particularly vulnerable to infection and morbidity with SARS-CoV-2 and will be less likely to benefit from population-wide prevention approaches such as contact tracing and mass vaccination. The recommendation by the Joint Committee on Vaccine and Immunisation in the UK to prioritise vaccination of people experiencing homelessness and rough sleepers is welcome, but will require ongoing vaccination programmes to ensure optimal coverage as well as targeted testing in coming years.<sup>1</sup> There is a high risk that individuals who are homeless or otherwise socially excluded will be unable to be vaccinated and remain vulnerable to COVID-19 infection, limiting the potential for overall UK population coverage of COVID-19 vaccination to remain below the herd immunity threshold. Below, we consider existing evidence on ‘what works’ in vaccine provision and contact tracing among socially excluded populations, as well as learning from the response so far including the provision of emergency accommodation and vaccine delivery. We set out strategies for interventions and priority research questions, emphasising the importance of co-production in research and service delivery, to prevent ongoing transmission of

SARS-CoV-2 and future infectious disease outbreaks.

Barriers to COVID-19 vaccine uptake by people experiencing multiple social exclusions should be anticipated. Up to 75% of people aged 18 years and over have received two doses of vaccines in the UK.<sup>2</sup> This compares to findings from a health needs assessment among people living in hostels, emergency accommodation or sleeping rough in London that suggested only 46% had received one dose and 29% of those had received a second dose (COVID-19 Health Rapid Integrated Screening Protocol London cohort, personal communication Dr Binta Sultan, Find&Treat, UCLH). This evidence comes in the context of existing accounts of low vaccine uptake for other vaccine-preventable diseases. People who are homeless are half as likely as other groups to receive the influenza vaccination and people who use drugs or who sell sex are less likely to receive hepatitis B vaccination (HBV) than healthcare workers.<sup>3–5</sup> The reduced uptake is attributable to mental health issues, drug use and reduced access to primary healthcare, compounded by stigma and general distrust in authorities.<sup>6</sup> Intersecting vulnerabilities can pose additional barriers, with migration status among sex workers, for example, restricting access to vaccination programmes in Canada.<sup>4</sup> Prevailing stigma that limits uptake of vaccines and trust in the authorities could be further elevated by low vaccination rates, or perceptions of them, among certain groups generating new forms of stigma focused on fears of COVID-19 infection and leading to further exclusion.

Modelling work suggests that the provision of emergency housing in the form of hotels and temporary accommodation, as well as hostel-based prevention measures, introduced in March 2020 to facilitate social distancing and quarantining, halved the expected number of deaths and hospital and acute care admissions for people experiencing homelessness in England.<sup>7</sup> This last year has also necessitated radical responses in health and care services to rapidly address needs of

vulnerable communities.<sup>8</sup> This included, for example, increased flexibility in opioid substitution therapy (OST) prescription during lockdown and service closures and the pre-emptive delivery of COVID-19 vaccines through pre-existing specialist teams to communities or through non-specialist roving vaccination services or General Practice (GP) clinics. However, there has been little formal evaluation of the different models of vaccine delivery, the extent to which location and expertise of team (ie, the inclusion of peers with lived experience of exclusion or others with expertise in socially marginalised populations) increases uptake or completion of vaccines or how changing social contexts (eg, stigma, housing, poverty) shape vaccination uptake.

Several promising strategies to mitigate inequity in vaccine uptake have been identified and can inform COVID-19 vaccination strategies. Findings from a meta-analysis suggests that financial incentives and accelerated schedules were associated with 2.3 times the odds of completing HBV vaccination compared with standard care for people who use drugs.<sup>5</sup> Other review evidence shows that delivery of vaccinations via specialist services, such as OST clinics or needle syringe programmes, to hostels or shelters or outreach to places where drugs are used results in greater uptake of influenza and HBV vaccinations.<sup>5 6</sup> Emotional support and positive interactions in personal lives (defined as having someone to confide in or do something enjoyable with) has also been linked to increased completion of HBV vaccines among people experiencing homelessness.<sup>6</sup>

Contact tracing—that is, the follow-up of potentially infected persons on confirmation of infection from an index case—is another key population-level prevention method for COVID-19 where success is likely to be limited for socially marginalised groups. Evidence from testing and follow-up of tuberculosis shows that socially excluded groups are less likely to seek testing and to name or provide details of contacts.<sup>9 10</sup> Barriers to contact tracing include lack of smartphones, having contacts that are not reachable through conventional means, being geographically transient or having concerns about enforcement regarding illegal activity or migration status.<sup>9</sup> There is limited social science research on experiences of contact tracing, but the evidence suggests that excluded groups often form smaller, changeable social networks in which individuals rely heavily on each other for short-term survival.<sup>11</sup> Members of such

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groups may be reluctant to divulge others' personal details, especially where there is reduced trust in authorities and health services and where contact sharing may be seen as a breach of trust.

Systematic reviews of contact tracing interventions among marginalised populations provide suggestive evidence for three strategies in the context of tuberculosis treatment and prevention. First, integration of prompts around location (rather than people) has been shown to improve recall of contacts among people who use drugs. Second, widespread testing and active case finding at locations named by index cases, rather than asking for named contacts. A third strategy suggests the importance of engaging peers, people with lived experience of social exclusion, that can help improve the appropriateness of community testing and contact tracing potentially maximising uptake of COVID-19 vaccines or treatments.<sup>9 10</sup>

Working with peers in prevention efforts, alongside the establishment of partnerships with voluntary and community groups, has been shown to be effective in the context of hepatitis C treatment.<sup>12</sup>

People with lived experience of social exclusion should be placed at the forefront of any service delivery and evaluation framework. Co-production of interventions and study design provides insight and responsiveness into intersections of homelessness, drug use, migration and sex work as well as other axes of inequality.<sup>10</sup> Inclusion can help counter the power dynamics implicit in the delivery of top-down health service responses and related research, which when delivered inappropriately can serve to further entrench marginalisation. Tailored peer-led communication to counter stigma is essential to help inform particular communities on risk and to address misinformation.<sup>13</sup> A long-term goal must be the provision of permanent housing for socially excluded populations. As emergency accommodation measures

are withdrawn and plans for the provision of permanent housing are unclear, accelerating uptake of vaccine to COVID-19 vaccines is imperative. To do this, we must understand rationales for COVID-19 vaccine uptake or refusal as well as barriers to contact tracing, evaluating existing models of delivery, to inform effective prevention of ongoing transmission of SARS-CoV-2 among this population.

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