



## Inclusion health - understanding extreme health inequity and what works to reduce it

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“Housing within an ordinary community setting should be an overriding policy objective of inclusion health.”

“Social exclusion is deprivation upon stilts”.<sup>1</sup> This was the turn of phrase adapted by Michael Marmot in an accompanying commentary to our recent systematic review and meta-analysis of morbidity and mortality in homeless individuals, prisoners, sex workers, and individually with substance use disorders in high income countries.

Prior to our review much was known about the association between deprivation and health outcomes, using measures such as neighbour deprivation and occupational status, not least because of the work of Michael Marmot. However, these existing measures of deprivation are often collected on housed populations and therefore do not provide evidence on the extent of health and equity experienced by populations who are subjected to deep social exclusion.

In preparation for a series in *The Lancet* on inclusion health we performed a rapid review of the morbidity and mortality literature in this area and found extensive evidence on the highly overlapping nature of inclusion health populations, which in this instance focused on homeless individuals, prisoners, sex workers, and individually with substance use disorders. The literature also indicated at severely increased mortality in inclusion health groups in comparison to the most deprived populations in the general population.

Our rapid review did not identify any previous systematic attempt to summarise morbidity and mortality for inclusion health groups and we therefore decided undertake a full systematic review and meta-analysis. We looked at studies published between 2005 and 2015 and included results from observational, interventional studies and prior systematic reviews and meta-analysis. We decided to focus on high income countries - those that are wealthier as defined by the World Bank<sup>2</sup> - as we believed that the risk factors for poor health in these countries were most comparable.

Our view highlighted the extreme extent of inequity faced by inclusion health populations.<sup>3</sup> We found that women in these groups were 12 times more likely to

die than other women of the same age in the general population and men were eight times more likely to die. We also looked at the underlying causes of these deaths. Injuries, poisoning and other external causes of death - in men and women - were found to have the most extreme risk of death. Whilst these causes were associated with the highest risk, we found that relative mortality was increased across all sub-categories for we had sufficient data to analyse, including infections, mental health and behavioural disorders, cancers, and cardiovascular disease.

When we examined the volume of previous research that had been taken in each of these groups of disease, we found that infectious diseases and Mental and Behavioural disorders were the two most studied ICD 10 categories. Injury and poisoning only accounted for a small amount of the extracted data despite being in the group with the highest relative increased mortality risk.

Some caution is required interpreting our summary estimates of relative mortality. We found a great deal of variation in the outcomes across the different groups, but we were unable to fully explain this variation with additional statistical analysis. We were therefore unable to understand why health outcomes varied which is an important area for future research. Our review only looked at published research and we limited our search to results from 2005, and as a result we will therefore have missed literature published outside of the academic arena and we were unable fully examine how changes in mortality have occurred over time.

Linked to the systematic review on mortality was an accompanying paper that aimed to identify social and health interventions with evidence for improving the physical and mental health of inclusion health groups.<sup>4</sup> In this paper we found evidence for a broad range of interventions that worked at the individual level. Case management was shown to improve care coordination and mental health and outcomes. Contingency management (ie, vouchers or incentives), motivational interviewing, and cognitive behav-



itorial therapy were found to have some benefits for substance use disorders and in therapeutic communities for reincarceration. Existing studies showed that disease prevention can be achieved through a harm reduction including, for example, needle and syringe programmes, substitution programmes, and safe injecting site programmes that can reduce risk behaviour, risk of blood-borne viruses, and overdose risk.

Individual based interventions will improve the health and well-being of those receiving these interventions, but wider social, economic, housing, education approaches that tackle the root causes of exclusion are required if we are really going to make large improvements for inclusion health. Our review found less evidence of what works in these areas, but policies that focus on reducing poverty and deprivation, particularly among families and young children at risk of maltreatment, are those that are likely to have the greatest impact.

Housing within an ordinary community settings should be an overriding policy objective of inclusion health. This means that housing should be open-ended, flexible and coordinated. People should be given the option of staying in ordinary housing - with appropriate support if and when required - rather than being obliged spend periods in other communal settings, particularly if this is against their wishes.

Barriers in accessing health, and non-health, services are a key problem for inclusion health populations. A effective way identify and accelerate the removal of these barriers is to involve and work in close collaboration with people with experience of social exclusion. As part of our review, we undertook an engagement event with experts by experience - individuals with experience of social exclusion, such as homelessness, addiction, or incarceration. Working with these experts barriers to accessing services were identified, including administrative and documentation requirements (such as proof of address), language, culture, and even fear of the service. Luck was often described as the way these barriers had been overcome, but better care coordination and the use of peer advocates were identified as systematic ways to improve access. The experts also emphasised the importance of non-healthcare related interventions - the most important of these was housing.

To move things forward we proposed priority areas for further work. Inclusion of populations are often absent from routine administrative data collection - an issue that should be addressed as without

these data these groups will remain invisible to politicians and policymakers and therefore too easily ignored. Such data will also enable the monitoring of outcomes over time to facilitate a better understanding of what is improving their outcomes at the regional, national and international level. Additional evidence on upstream interventions, such as employment and education, that are likely to be beneficial to inclusion health populations needs to be generated as a matter of priority.

Our studies therefore highlighted the extreme inequity of inclusion health, along with evidence on what can be done to start to improve this situation, and the areas for further research. Tackling this problem requires the organised efforts of society, and as Michael Marmot concluded "We need the involvement of society as a whole to tackle the causes of the causes of social exclusion and its dramatic health consequences. This approach might save money and it is the right thing to do."

## REFERENCES

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