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Health outcomes among people with severe and multiple disadvantage

Introduction: People with a history of homelessness, imprisonment, substance use disorder, or severe mental illness, have extremely high rates of ill-health and premature mortality, often from preventable causes. A substantial number of people are affected by more than one of these adverse life experiences: a phenomenon often known as 'severe and multiple disadvantage' or 'multiple and complex needs'. (Though a number of different terms are used in this field, for the purposes of this project we have chosen to use severe and multiple disadvantage (SMD), in keeping with the Hard Edges initiative led by colleagues Heriot Watt University.)

However, despite the apparent scale of SMD, there is a profound lack of evidence about its impact on health. As highlighted by the forthcoming Lancet Commission on Inclusion Health, most research to date has investigated these experiences singly, or at most in pairs. SMD may therefore be considered a neglected form of health inequality.

Furthermore, people experiencing SMD typically have high levels of use of health and social care: one conservative estimate puts the public service costs incurred by this population at approximately £4.3 billion per year in England alone. There is concern from service providers and policymakers alike that such costs reflect a failure to meet the needs of this group, or to resolve the circumstances underlying their needs.

A better understanding of the relationship between SMD and health is therefore required, as an essential first step in tackling poor outcomes and avoidable costs among this group. This is increasingly pertinent given recent rises in homelessness, incarceration, and drug-related harm across the UK.

Data linkage refers to the process by which data from different sources, usually collected routinely during the administration of routine services such as health and social care, can be brought together for the purposes of research or service improvement. Projects linking homelessness data with health data in Fife, Lanarkshire, and now across Scotland as a whole, have demonstrated the value of this approach in helping understand the needs of excluded groups. Our proposal aims to build on these successes by extending the linkage to include other, commonly co-occurring dimensions of social exclusion such as imprisonment, substance use disorder, and severe mental illness.

Definitions: SMD is defined in this project as exposure to more than one of the following: homelessness or housing insecurity; imprisonment; substance use disorder; and/or severe mental illness.

Aims and research questions: This study aims to describe the health outcomes of people with the overlapping combination of adverse social and health experiences known as SMD, in order to identify opportunities for prevention and mitigation and to inform service planning and delivery. In particular, we aim to answer the following questions:

1) How common is experience of SMD in Scotland, and what is the demographic profile of this population?

2) What is the relationship between experiences of SMD and subsequent risk of hospitalisation, A&E attendance, and death?

3) How do the associations observed in (Q2) between different combinations of adverse experiences and health outcomes vary with other characteristics, such as age; gender; and ethnicity?

4) What are the secondary health care costs associated with SMD?

Methods: We will use the following databases to identify people experiencing SMD. While these databases do not offer a complete record of all people with these experiences, this project will establish proof of principle for this approach and in future, additional sources may be added to improve the quality and completeness of the data.

- HL1 data from Scottish local authorities, comprising people applying for statutory homelessness support
- PR2 data from the Scottish Prison Service, on people admitted to Scottish prisons (whether on remand or sentenced)
- Scottish Drug Misuse Database, Prescribing Information System, and SMR01/04, on people accessing services for substance use disorder
- SMR04 data from psychiatric services, on people with severe mental illness

Linkage between the datasets will be undertaken by the Administrative Data Research Centre, at a secure location known as a Safe Haven. All data will be anonymised before analysis and publication, and the researchers will not have access to any data that might potentially be used to identify individuals.

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Outputs:

- Proof of principle for future linkages of this type and foundation for future grant applications to further validate and supplement the cohort created here, using additional data sources and capture-recapture methods

- First comprehensive study of morbidity and mortality among people experiencing SMD compared to the general population

- First description of the intersection of different forms of SMD with other aspects of identity or social experience, such as age and gender