

Project Details	
Project Code	MRC22PHSBr Hickman
Title	Homelessness and elimination of HIV and hepatitis C virus (HCV) in people who inject drugs: Building evidence for better action
Research Theme	Population Health Sciences
Summary	People who inject drugs experience frequent homelessness which increases their risk of HIV and hepatitis C virus (HCV) infection. However, the role of homelessness in driving these epidemics has received little attention. This PhD will use epidemiological methods and infectious disease modelling to determine the importance of public health responses addressing the risks associated with homelessness for tackling the HIV/HCV epidemics. among people who inject drugs.
Description	<p>People who inject drugs carry a disproportionate burden of disease related to HIV and hepatitis C virus (HCV) infection, and therefore, represent a key target group in prevention efforts and in the global agenda to eliminate these infections by 2030, led by the World Health Organisation and the United Nations Programme on HIV/AIDS. To achieve these elimination targets, it is essential to expand access to prevention interventions and treatment for HIV and HCV. However, while it is acknowledged that people who inject drugs face profound socio-economic disadvantage that can increase their HIV and HCV risk behaviours and limit access to health services, these social determinants of health are rarely considered in HIV/HCV elimination programs. Access to safe and stable housing is one of the most fundamental human needs, yet 22% of people who inject drugs globally have experienced homelessness or housing instability in the past year, with this proportion reaching 40% in North America, India and parts of Europe. Homelessness is recognised as having a harmful impact on health and our recent study highlights its role in increasing HIV and HCV transmission among people who inject drugs (Arum et al 2021 LancetPH). Studies such as ours bring a much-needed focus on the importance of tackling homelessness for reducing HIV/HCV transmission in this marginalised population. Meanwhile, our work has also revealed important gaps in our understanding on how homelessness affects HIV/HCV risk behaviours and access to prevention and treatment services, and how different forms of housing instability (e.g., street homelessness, precarious temporary living arrangements) may influence infection risk. Importantly, at a time when infectious disease modelling has been used to map out strategies to achieve HIV and HCV elimination in different global settings, no study has yet considered the importance of reducing homelessness and housing instability among people who inject drugs in the process. This PhD project sits at the interface of health and social sciences and will advance a novel and topical area of interest focused on addressing the social determinants of health to reduce infectious disease transmission. The student will receive training and develop skills in epidemiological methods and infectious disease modelling to address the following general aims, which can be tailored according to individual interests:</p> <ol style="list-style-type: none"> <li>1. Systematically review evidence on how homelessness and unstable housing affects HIV and HCV risk behaviours and access to prevention and treatment interventions among people who inject drugs</li> <li>2. Use context-specific data to assess how different forms of housing</li> </ol>

	<p>instability (e.g., street homelessness, precarious temporary living arrangements) may have differing effects on HIV and HCV infection risk among people who inject drugs in various global settings 3. Using infectious disease modelling and based on findings from aims 1 and 2, determine the importance of reducing homelessness or housing instability and of scaling-up HIV/HCV prevention and treatment interventions among homeless/unstably housed people who inject drugs for achieving HIV and HCV elimination in different global settings Our groups at the University of Bristol and Cardiff University hold several collaborations nationally and internationally, which provide an opportunity for the student to work in different global settings that are characterised by varying levels and forms of homelessness and housing instability. There is also an opportunity to consider the context-specific effects of the COVID-19 pandemic on housing. Possible settings include the UK, US, Kenya and India. This project has implications on a global scale, with potential to help strengthen the public health response to the HCV and HIV epidemics among people who inject drugs. The PhD will result in high impact journal articles, with results being presented at national/international conferences.</p>
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