

NIHR School for Public Health Research PhD studentships 2018

Title:

Application of whole-systems approaches to place-based policy-making: leveraging green infrastructure for population health

Brief outline:

Background

The [UCL Institute of Environmental Design and Engineering](#), with the London School of Hygiene and Tropical Medicine, is pioneering the application of system dynamics modelling and systems thinking to the evaluation of built environment interventions for health and sustainability. Our [Complex Urban Systems for Sustainability and Health \(CUSSH\)](#) project is part of an exciting investment into research to improving population health, and enhancing health equity and environmental sustainability in cities around the world. It will achieve this through knowledge coproduction among researchers, policy-makers, practitioners, and civil society; developing tools for prospective policy evaluation in our partner cities (including London); and training research and policy leaders in urban health.

Focus

Building upon methods and partnerships from the CUSSH project, the PhD student will work with multiple local stakeholders both to provide evidence aimed at giving greater weight to health and sustainability considerations in policy development/implementation and to establish methods to develop more integrated thinking on aligned solutions. One focus area could be green infrastructure – our recent discussions with the Greater London Authority indicate interest from policy makers in this area. This PhD studentship can help draw out implications for UK local and national policies and welfare system. Green infrastructure could have multiple benefits on health by an impact on physical activity, mitigation of climate change, and even mental health and wellbeing. In England, responsibility for green infrastructure is split between various government departments, local authorities, and it is also connected to planning and transport policy. Identifying and implementing interventions around urban green infrastructure can be challenging, and the health benefits not obvious to all stakeholders. Therefore, this PhD student will (i) help stakeholders such as policy-makers become aware of and use scientific evidence about health and sustainability impacts, (ii) establish methods to develop integrated thinking and (iii) develop best practices for applying it around health and place.

Approach

The project will start with close stakeholder engagement to align it with pressing information and implementation gaps. It will then provide a holistic literature review of how green infrastructure affects physical activity, health and sustainability. This will be supported by a review of the multiple stakeholders' current thinking on the topic and the potential for creating integrated thinking. It will examine the role of evidence on green space in the development of environment and health strategy. The student will develop a system dynamics model based on scientific evidence, implementation evidence and the status quo on integrated thinking. The student will then design and implement methods to make this new understanding available to stakeholders and to act on it. A very close collaboration with stakeholders and the Greater London Authority is planned via interviews, workshops and a secondment that will serve as a natural experiment and case study where the developed approaches are tested. Finally, the student will develop generic best practices for applying systems thinking in practice among policy-makers around health and place by integrating the findings from the literature, modelling and the stakeholder engagement. These will be applicable widely to urban settings in the UK and beyond.

Supervisory team:

Dr Nici Zimmermann, Lecturer in System Dynamics, UCL Institute for Environmental Design and Engineering, University College London
Prof Paul Wilkinson, Professor of Environmental Epidemiology, London School of Hygiene and Tropical Medicine
Cassie Sutherland, Policy and Programme Manager (Environment), Greater London Authority, London
Dr Marcella Ucci, Senior Lecturer in Environmental and Healthy Buildings, UCL Institute for Environmental Design, University College London
Prof Susan Michie, Professor of Health Psychology, UCL Centre for Behaviour Change, University College London
Prof Mike Davies, Professor of Building Physics and the Environment, UCL Institute for Environmental Design, University College London

Programmes and themes:

- Public mental health
- Children, young people & families
- Places & communities**

- Health inequalities
- Changing behaviour at a population level
- Efficient and equitable public health systems

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Additional information

The CUSSH project, which the PhD studentship will collaborate with, has strong links to Public Health England, the Healthy-Polis Network and the Greater London Authority. This network will support the student in conducting relevant research with applicable findings.

More information, also about the application process, is available here:
<http://sphr.nihr.ac.uk/about-sphr/work-with-us/>

Please note that the application is due at 12 noon **UK summer time** on Wednesday 9th May 2018.