

An international research programme to drive change towards healthier and more sustainable cities

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While cities play a major role in environmental sustainability and health promotion, particularly through the adoption of healthy urban planning policies, major urban transformations are needed to successfully address current and future health and sustainability challenges (Singh & Beagley 2017; Crane *et al.*, 2021).

In this context, the interdisciplinary and collaborative research project “Complex Urban Systems for Sustainability and Health” CUSSH was initiated in 2017 by UCL (University College London, UK) (Davies *et al.*, 2021). Developed in collaboration with more than a dozen research partners and 6 cities around the world (London), Rennes, Homa Bay and Kisumu (Kenya), Beijing and Ningbo (China), the project aims to explore enablers and constraints to the process of integrating health into urban decision-making and identify approaches to drive change and transformation towards healthier and more sustainable cities. A key research question is whether and how the use of scientific evidence, systems thinking and participatory engagement in decision-making processes can strengthen the planning and implementation of ambitious health and environmental policies. Other work focuses on the development of indicators to measure progress and the application of quantitative models of health impacts on various projects. For example, in China, the CUSSH team is modelling the health impacts of exposure to heat events and is analysing policy response

to understand ways of accelerating change in reducing air pollution. Similar modelling methods (quantitative health impact assessment) are being used in other cities around different themes: active mobility (Rennes), waste management (Kisumu) and analysis of urban plans and policies (London, Kisumu, Rennes). In London, different modelling approaches, such as system dynamics, are also being used to understand the complexity of interactions between the different components and stakeholders involved in urban development, with a focus on green spaces. The involvement of local organizations in modelling helps to build trust between researchers and decision-makers, a prerequisite for better integration of evidence in decision-making (Deloly *et al.*, 2021).

A final pillar of research focuses on public engagement, including both of city stakeholders and citizens, and on individual and collective capacity building. For example, in Kisumu and Homa Bay, in order to promote new waste management practices that have improved outcomes for the environment and health, the CUSSH team organized various activities such as workshops between residents and political representatives, as well as in schools around waste sorting and produced a number of videos and documentaries with knowledge-sharing aims. These initiatives have encouraged residents to express themselves, adopt efficient waste management practices and further share those with others more widely. Although a common research framework exists, each city has its own history, context and issues. Research activities take these characteristics into account and adapt according to the cities’ specificities through collaboration with stakeholders and the use of local data. The CUSSH project provides an opportunity to observe and understand how different tools or strategies may be employed in different contexts and generate different outcomes. The project is planned to end in late 2023, but we have already been able to demonstrate that to accelerate the transformation of cities towards a better integration of health and environment in policies, the production of evidence alone is not sufficient. It is fun-

damental to establish trusting relationships between scientists, decision-makers and citizens and, more specifically, to set up clear exchange mechanisms and efficient co-production processes. Decision-makers must be able to apply scientific data more systematically into policy decision-making and translate those into practical actions, while also expressing their expectations in terms of evidence production to scientists. As for researchers, they must understand how to better position the expectations of professionals within their research, and this from the project’s design stage. ■

Further reading:

● <https://www.ucl.ac.uk/complex-urban-systems/>

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