

TPR, 82 (*) 2012

Yvonne Rydin

Viewpoint

Healthy Cities and Planning

The interface between urban planning and human health has had a long history. Public health concerns arising from poor sanitation drove civic design in Roman settlements and major urban planning reforms in industrialised countries in the nineteenth century. In the twentieth and twenty-first centuries, our understanding of how the planning of cities can affect health outcomes has widened out to incorporate a greater range of health impacts – obesity, asthma, cardiovascular disease, cancer to name but a few – and aspects of urban planning such as green space provision, traffic management, urban climate control, air quality management and building standards. We now appreciate that building health into cities is an important role for planning systems, both in the rapidly growing cities of low-middle income countries but also in the established cities of high income countries where there are possibilities of ‘retrofitting for health’.

In response, UCL and *The Lancet* joined forces during 2009-11 to convene a Commission with the remit ‘to understand the dynamics involved in delivering better health outcomes through built environment interventions in cities across the world’. It sought to develop an analysis that looked at cities across the low-high income spectrum and focussed on how the physical fabric and infrastructure of urban areas can be shaped and reshaped for health. Reviewing the extensive literature on health and cities (for example, Northridge et al., 2003; Sclar et al., 2004; Boyce and Patel, 2009; Harpham, 2009; GNRUHE, 2010 as a few key references) makes it clear that there is a strong degree of consensus on what makes a city healthy:

- *Clean water and good sanitation*: a supply of potable water and sanitation infrastructure for sewage treatment and disposal.

- *Clean air*: good air quality.
- *Clean land*: decontamination of polluted land and facilities for safe waste disposal.
- *Safe homes*: housing that provides protection from the weather and a safe indoor environment.
- *Secure neighbourhoods*: localities offering security and a sense of community.
- *Car-independence*: frequent, affordable and accessible public transport and provision for safe walking and cycling to support mobility and exercise.
- *Green and blue spaces*: an infrastructure of greenery and water features for exercise, local climate control, flood prevention and mental well-being.
- *Healthy facilities*: an accessible, equitable and functioning system of health care facilities.

However, it is equally apparent that many cities across the world do not even meet the basic rights of their citizens with regard to health (Backman, 2008); most fail to fulfil this vision of a healthy city completely. For example, the Healthy Cities movement, which originated in the mid-1980s and has spread across Europe and Northern America and, to a lesser extent, the global South (Ashton, 1986; Hancock, 1993; WHO Regional Office for Europe, 1997; Kenzer, 1999) has found it difficult to achieve outcomes commensurate with its ambitions (Werner and Harpham, 1996; Petersen, 1996; Goumans and Springett, 1997; WHO Regional Office for Europe, 2008; Ritsatakis and Makara, 2009). One criticism made of the Healthy Cities movement is that it lacked a coherent theory of how to deliver change. The Commission therefore devoted considerable time to considering how to conceptualise planning for health in cities.

The Commission rejected the widely-espoused transitions model which is particularly dominant within the epidemiological literature (e.g. Preston, 1975, Omran, 1983). This looks to economic growth and associated urbanisation and social change as key drivers for better health outcomes. It is closely associated with the arguments for the 'urban advantage' by which it is assumed that people's health will improve as populations move from rural to urban locations. There is indeed evidence in broad terms of health outcomes being better in

urban than rural locations (Galea et al., 2005) but questions remain as to many aspects of this model of urban health.

The transitions model fails to explain why health outcomes have improved more quickly in recent years than in past or why there are differences in speed of improvement across countries or across cities within one country. It is not able to address adequately social inequalities and the widely differential health outcomes of different social groups within a city, both in high and lower income countries (Sverderlik, 2011). Most importantly, the transitions approach fails to recognise that the urban advantage in health outcomes that currently exists for cities over rural areas actively needs to be created and maintained; it is a function of the performance of urban governments.

Instead a complex systems approach was adopted (Glouberman et al., 2003) which recognised that the inter-relationships leading to urban health outcomes are non-linear and that causation is multi-directional. Causes are also outcomes and positive and negative feedback loops are widespread. In addition the links between cause and effect are often delayed so that connections can be difficult to discern. Such complex systems can be illustrated at different levels of detail. Figure 1 provides a broad-brush illustration, looking at the multiple interactions between:

- The nature of society and governance;
- Urban planning and management;
- Features of the built environment;
- Built environment determinants of health; and,
- Urban health outcomes.

However, for policy and planning purposes, more detailed analysis of the complexity of specific urban health issues and interventions in city environments are needed (see, for example, CIHI, 2003 and illustrations for sanitation and wastewater, urban mobility, building standards and the Urban Heat Island in Rydin et al., forthcoming). Operationalising such a framework involves recognising that planning for health in cities will not be easy. Three key aspects were identified.

First, it cannot be taken for granted that better health outcomes will be a leading planning policy priority, given the competition from other pressing agendas. For this reason, it is essential to create arenas to debate the moral and ethical issues surrounding planning (or not planning) for urban health. This necessitates the involvement of all actors who can deliver urban health outcomes alongside communities and other key stakeholders; above all planners and public health officials need to engage with each other. There a number of existing policy tools that can be used to highlight the extent to which health issues are routinely and consistently considered: for example, Strategic Environmental Assessment, Health Impact Assessment, and, Joint Strategic Needs Assessment. Appropriately used – i.e. to promote communication – these tools can also help in bringing health stakeholders into contact with urban planners and providing a forum for discussion about health and the built environment.

Second, in keeping with the ecological metaphor behind complexity thinking, it is most appropriate to promote diversity within efforts for urban health through a variety of different initiatives and projects. Variety, experimentation, and trial-and-error are effective responses to the unpredictability of complex systems. This puts the emphasis on implementation rather than strategy development and on planners acting as policy entrepreneurs to be alert to opportunities for new initiatives, whether they originate from communities, the public sector, the private sector or partnership arrangements.

Third, this prioritisation of experimentation necessitates an equal emphasis on evaluation and learning. For the complex systems approach alerts us to the reality that measures adopted to shape the built environment so as to improve health outcomes often fail to achieve their goals. Unintended consequences are a key feature of complex systems, the rule rather than the exception. In keeping with this approach, evaluation needs to be discursive and inclusive rather than limited to expert feedback by report. The aim is to create a community of practice around urban health which promotes learning by doing (Wenger, 2007).

The Commission's contention is that engaging in public debate about incorporating health concerns into planning policies , looking for policy windows

to experiment with a variety of urban health initiatives and judiciously using evaluation tools in inclusive dialogue with public health stakeholders could make the achievement of the healthy city vision more of a reality.

Further information

This Viewpoint draws on work undertaken by the UCL-Lancet Commission on Healthy Cities which sat during 2009-11; the full report from the Commission has been submitted to *The Lancet* for publication. Further outputs from the Commission's work, including briefings for professionals and policy makers, will be available at a microsite available from www.ucl.ac.uk/environment-institute and www.ucl.ac.uk/grand-challenges.

Acknowledgements

I wish to acknowledge the work of my co-authors on the UCL-Lancet Commission report, which was a collaborative effort: Ana Bleahu, Michael Davies, Julio D. Dávila, Sharon Friel, Giovanni di Grandis, Nora Groce, Pedro C. Hallal, Ian Hamilton, Philippa Howden-Chapman, Ka Man Lai, C.J. Lim, Juliana Martins, David Osrin, Ian Ridley, Ian Scott, Myfanwy Taylor, Paul Wilkinson and James Wilson.

References

- ASHTON, J. (1986), 'Healthy cities: WHO's new public health initiatives', *Health Promotion*, **1**, 319-324.
- BACKMAN, G. (2008) 'Health systems and the right to health: an assessment of 194 countries', *The Lancet*, **372**, 2047-2085.
- BOYCE, T. and PATEL, S. (2010), *The Health Impacts of Spatial Planning Decisions*, London, The King's Fund.
- CIEH (2008) *Good Housing Leads to Good Health: a toolkit for environmental*

health practitioners, London, CIEH.

GALEA, S. and Vlahov, D. (2005) 'Urban health: evidence, challenges and directions', *Ann. Rev. Public Health*, **26**: 341-365.

GRNUHE (GLOBAL RESEARCH NETWORK ON URBAN HEALTH EQUITY) (2010),
Q *Improving urban health equity through action on the social and environmental determinants of health*, London, GRNUHE Publications.

GLOUBERMANN, S., GEMAR, M., CAMPSIE, P., MILLER, G., ARMSTRONG, J., NEWMAN, C., SIOTIS, A., and GROFF, P. (2003) 'A framework for improving health in cities: a discussion paper' *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, **83**: 325-338.

GOUMANS, D. and SPRINGETT, J. (1997), 'From rhetoric to reality: barriers faced by health for all initiatives', *Social Science & Medicine*, **63**, 179-188.

HANCOCK, T. (1993), 'The evolution, impact and significant of the healthy cities. Healthy communities movement', *Journal of Public Health Policy*, **14**, 5-18.

HARPHAM T. (2009), 'Urban health in developing countries: what do we know and where do we go?', *Health and Place*, **15**, 107-116.

KENZER, M. (1999), 'Healthy cities: a guide to the literature', *Environment and Urbanization*, **11**, 201-220.

NORTHRIDGE, M., SCLAR, E. and BISWAS, P. (2003), 'Sorting out the connections between the built environment and health: a conceptual framework for navigating pathways and planning healthy cities', *Journal of Urban Health*, **80**, 556-568.

OMRAN, A. R. (1983), 'The epidemiologic transition theory: a preliminary update', *Journal of Tropical Paediatrics*, **29**, 305-316.

PETERSEN, A. (1996), 'The healthy city, expertise, and the regulation of space', *Health and Place*, **2**, 157-165.

PRESTON, S. H. (1975), 'The changing relation between mortality and level of economic development', *Population Studies*, **29**, 231.

RITSATAKIS, A. and MAKARA, P. (2009), 'Gaining health: analysis of policy

development in European countries for tackling noncommunicable diseases', *World Health Organization*, **12**, 188.

RYDIN, Y., BLEAHU, A., DAVIES, M., DAVILA, J., FRIEL, S., DE GRANDIS, G., GROCE, N., HALLAL, P., HAMILTON, I., HOWDEN-CHAPMAN, P., LAI, K.M., LIM, C.J., MARTINS, J., OSRIN, D., RIDLEY, I., SCOTT, I., TAYLOR, M., WILKINSON, P., WILSON, J. (forthcoming), 'Shaping cities for health; the complexity of planning urban environments in the 21st century', *The Lancet*.

SANDERSON, I. (2006), 'Complexity, 'practical rationality' and evidence-based policy making', *Policy and Politics*, **35**: 115-132.

SCLAR, E., GARAU, P. and CAROLINI, G. (2005), 'The 21st century health challenge of slums and cities', *The Lancet*, **365**,901-903.

SVEDERLIK, A. (2011), 'Ill-health and poverty: a literature review on health in informal settlements', *Environment and Urbanization*, **23**, 123-155.

WENGER, E. (2007), *Communities of Practice: learning, meanings, and identity*, Cambridge: CUP.

WERNA, E. and HARPHAM, S. (1996), *Urban health research in developing countries: implications for policy*. Wallingford, Oxon, CAB International.

WHO REGIONAL OFFICE FOR EUROPE (1997), *Healthy Cities Project Phase III (1998 – 2002): The requirements and the designation process for WHO project cities*, Copenhagen.

<http://www.who.it/document/hcp/ehcphas3.pdf> [Accessed 27 Sept. 2011]

WHO REGIONAL OFFICE FOR EUROPE (2008), *City leadership for health: summary evaluation of Phase IV of the World Health Organization*. European Healthy Cities Network.

<http://www.euro.who.int/document/E91886.pdf>. (Accessed 27 Sept. 2011)

Yvonne Rydin is Professor of Planning, Environment and Public Policy at the Bartlett School of Planning, University College London, Wates House, 22 Gordon Street, London WC1H 0QB; Email: y.rydin@ucl.ac.uk