29.07.2022 Habitat

Housing and the street: from opportunity to liability? A new systemic research agenda

Authors: Pagani, A., Christie, D., Bourdon, V., [contributors to be confirmed], Viganò, P.

Keywords: health; traffic; inequalities; justice; air pollution; noise pollution; Switzerland

Extended abstract

Housing plays a central role in maintaining and promoting inhabitants' health and wellbeing. As human spend around 70% of their time at home, housing conditions are of fundamental importance to mitigate health risks. A number of studies have shown that the determinants of housing health are not limited to the physical boundaries of the dwelling, but need to be understood in relation to the broader urban system. This interaction is mediated by the street, whose status and relationship with the dwelling has been evolving through time, eventually affecting, directly and indirectly, inhabitants' health.

Within this framework, the study of housing health has so far predominantly relied on traditional public health approaches, whereby the independent effects of specific factors on health are isolated (such as bedroom window orientation, traffic volume, pollutants levels, inhabitants' socioeconomic characteristic, etc.). However, such approaches forgo the complexity of the housing-street-health (HSH) system and its conceptual, temporal, and spatial interlinkages. Spatiotemporal analysis methods are emerging in epidemiological research, which allow the identification of linkages between place of residence and health, and thus of priority areas for health intervention. Yet the interpretability of their results is constrained by the framework of analysis, which exposes them to the risk of a siloed and thus incomplete view of the system under study.

To achieve a holistic understanding of the evolving interactions within the HSH system, there is a need to integrate and explore synergies across the plurality of fields addressing the residential context of health over time and space.

The goal of this paper is to introduce a systemic research agenda for the study of health in relationship to the broader housing system. It concisely reviews the state of the art of the research on housing, the street, and health, focussing more specifically on past and ongoing research in the context of Geneva, Switzerland. Causal relations between key determinants of the HSH system dynamics are organised into a system map. The map allows to formulate systemic research questions across six key areas of study and therefore to go beyond the fragmented approaches to the study of urban health. Finally, the paper outlines recommendations for future transdisciplinary research addressing—conceptually, spatially and temporally—the multilayered HSH system complexity.