

The SALURBAL (Salud Urbana en América Latina) Project: learning from Latin America's Cities for a Healthier Future

The SALURBAL team

1. Latin America is one of the most urbanized regions of the world and includes many cities of varying size with diverse economic, social and physical environments.
2. The Latin American region is also home to large social inequalities that manifest themselves in the form of significant health inequities within and across cities.
3. The region has experimented with a range of innovative policy initiatives in the areas of urban development, transportation, social inclusion, and the promotion of healthier behaviors, but health impacts have been rarely quantified.
4. The SALURBAL (Salud Urbana en América Latina) project is the first Latin American project to systematically investigate the factors associated with better health and lower health inequities in cities of Latin America.
5. A novel aspect of the project is employing methods to study linkages between urban health to environmental sustainability and using a combination of approaches (observation, policy evaluation and natural experiments, and systems approaches) to evaluate health impacts and identify promising urban policies.
6. Over a five-year period, SALURBAL will engage with scientists, policymakers and other sectors of civil society to identify key research questions and disseminate findings.

About the authors

The SALURBAL team

Drexel's large team of researchers and staff is collaborating with 15 institutions to implement the SALURBAL project, most of which are based in Latin America.

DREXEL RESEARCH TEAM

Ana V. Diez Roux, Principal Investigator
Amy Auchincloss, Co-Investigator
Brent Langellier, Co-Investigator
Gina Lovasi, Co-Investigator
Leslie McClure, Co-Investigator
Yvonne Michael, Co-Investigator
Harrison Quick, Co-Investigator
Alex Quistberg, Co-Investigator
Jose Tapia, Co-Investigator
Usama Bilal, Post-Doctoral Fellow
Ivana Stankov, Post-Doctoral Fellow
Ana Ortigoza, Doctoral Student



DREXEL STAFF

Claire Slesinski, Project Manager
Adriana Lein, Communications and Outreach Specialist
Autumn Ciarrocchi, Business Manager
Seraphina Ferraro, Administrative Coordinator

PARTNERS

Economic Commission for Latin America and the Caribbean (ECLAC)
Federal University of Minas Gerais, Belo Horizonte, Brazil
Institute of Nutrition of Central America and Panama (INCAP), Guatemala City, Guatemala
National Institute of Public Health, Mexico City, Mexico
National University of Lanus, Buenos Aires, Argentina
Oswaldo Cruz Foundation, Rio de Janeiro, Brazil
Oswaldo Cruz Foundation, Salvador Bahia, Brazil
Pontifical Catholic University of Chile, Santiago, Chile
United Nations University International Institute for Global Health
Universidad Peruana Cayetano Heredia, Lima, Peru
University of the Andes, Bogotá, Colombia
University of California at Berkeley, USA
University of Chile, Santiago, Chile
University of Sao Paulo, Sao Paulo, Brazil
Washington University in St Louis, Missouri, USA

Latin America is the world's most urbanized region; 80% of its inhabitants are concentrated in cities with a projected jump to 90% by 2050 (United Nations, 2014). As in other cities all over the world, health in Latin American cities emerges from the complex interplay of social, economic and physical environments. Diverse populations, large social inequalities and spatial segregation create and reinforce significant health inequities. Environmental sustainability and population health are mutually reinforcing; factors conducive to sustainable environments promote health, and healthier behaviors have beneficial environmental consequences.

The region faces health risks tied to social inequality, chronic diseases and aging, emerging infectious diseases, violence, and injuries (Briceño-León, 2005; Mutaner et al., 2012; Vilalta et al., 2016). Approximately 1 in 5 urban inhabitants in Latin America lives in a slum or informal settlement (World Bank, 2017; UN-Habitat, 2012). Latin America has the highest homicide rate in the world, averaging 24 victims per 100,000 inhabitants (UNODC, 2013). The region also has one of the highest rates of death and disability due to traffic accidents (Haagsma et al., 2015).

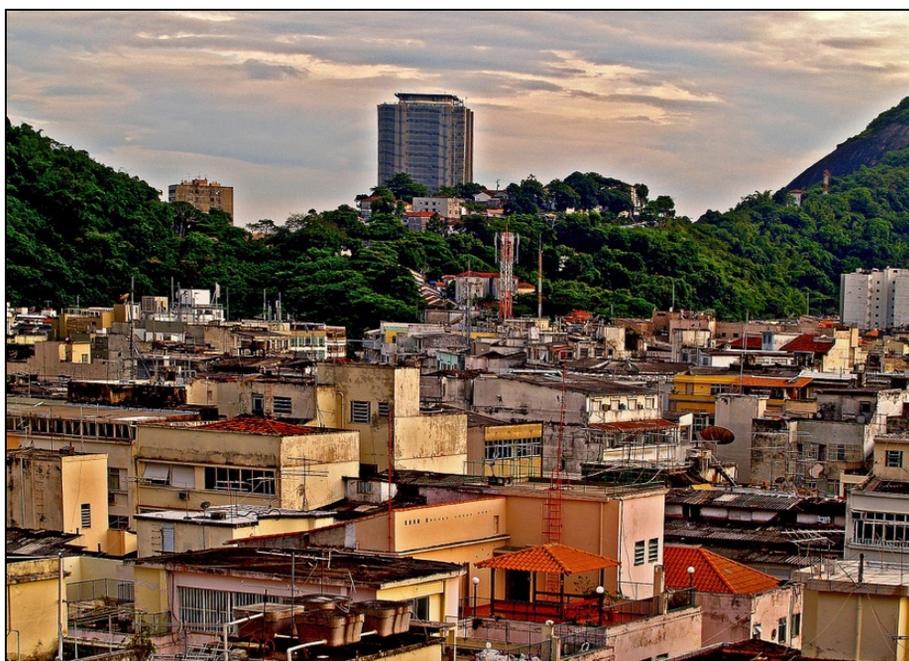
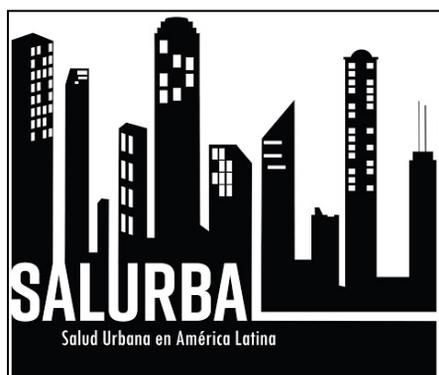


Figure 1: Informal settlements or *favelas* in Rio de Janeiro, Brazil

Heart disease, cancers, diabetes, and respiratory diseases remain the leading causes of premature death in the region, responsible for 81% of all deaths (PAHO, 2014). Physical inactivity (Arango et al., 2013; Gomez et al., 2015), the growing consumption of processed foods and obesity (Fishberg et al., 2016), and persistent malnutrition (World Bank, 2005) co-exist in Latin American cities. The rapid growth of many cities has been accompanied by limited planning processes, growing automobile traffic and poor air quality (Fajersztajn et al., 2017).



Despite the high relevance of urban health to the region, no international collaboration has focused on studying and improving urban health in the cities of Latin America. SALURBAL (Salud Urbana en América Latina/Urban Health in Latin America), a five-year project funded by the Wellcome Trust and launched in April 2017, brings together a total of 13 institutions across Latin America and 3 in the United States. The overall goal of the project is to learn from Latin America to inform policies and interventions to support healthier, more equitable, and more sustainable cities worldwide. The project is based at the Urban Health Collaborative at the Drexel University Dornsife School of Public Health and includes partners in Argentina, Brazil, Chile, Colombia, Mexico, Peru, and the countries of Central America.

SALURBAL Aims

1. To quantify the contributions of city and neighborhood-level factors to differences in levels of health and health inequalities among and within cities.
2. To evaluate the health and environmental impact of city and neighborhood-level policies and interventions by capitalizing on natural experiments and by combining quantitative and qualitative approaches.
3. To employ systems thinking and formal simulation models to (1) better understand the dynamic relationships between the urban environment, health and environmental sustainability; and (2) identify the plausible impacts of selected policies under varying conditions and amid dynamic relationships.
4. To engage with the scientific community, the public, and policymakers to disseminate findings and translate them into policies and interventions.

The project will create a unique data resource that will allow investigators to examine how physical and social environments are related to health variation among and within cities. This will be achieved by compiling and harmonizing existing data sources with variables related to the economic and social structures, physical environments, national environments, social environments, and the organizational and institutional factors present in cities to be analyzed along with health outcomes.

In addition, SALURBAL will capitalize on policy innovation in the region to study how policies in four domains (mobility, social inclusion, comprehensive urban development, and the promotion of healthier behaviors) impact urban health and health equity.

An especially novel aspect of SALURBAL is the use of systems approaches to yield insight into how a range of dynamic processes jointly affect health and environmental sustainability. The project identified transportation and food environments as two areas for systems modelling based on (1) the dynamic relations involved; (2) policy interest in the region; and (3) relevance to sustainable development goals. Simulation models will allow us not only to identify a plausible range of effects, but also to characterize the conditions under which these effects are manifest and identify any unintended consequences. This is of particular relevance to other regions in the world.



Figure 2: SALURBAL's planned policy translation activities

A series of participatory group model-building workshops will allow key stakeholders to conceptually map the multiple pathways through which a city's transportation options and food policies impact health. The conceptual maps and causal loop diagrams generated in these meetings will be used to inform the questions and structures that will be employed in formal simulation models in the second phase of the project. SALURBAL's research findings will carry a range of policy implications of relevance to government officials, public health practitioners, urban planners, social and economic development organizations, and the public.

The project will translate research findings into actionable knowledge and engage policymakers and other stakeholders in academia and civil society through direct engagement, knowledge exchange, and communications and outreach at all stages of the project (see Figure 2).

Additionally, engagement with non-academic partners, including policy and civil society organizations, will build capacity and infrastructure for continued systems research and evaluations. SALURBAL is unprecedented in its cross-discipline and cross-country network, offering a schema for future projects to promote comparative urban health research. Similarly, large-scale data that will be compiled and harmonized for the first time under SALURBAL will allow innovative policy evaluations in a variety of domains in the future.

The magnitude of Latin America's urbanization, heterogeneity across its cities and an innovative policy landscape make it well-suited for the study of urban environments and health. Thus, SALURBAL will generate generalizable knowledge that can be applied to policies both inside and outside of Latin America to improve population health, increase health equity and promote environmental sustainability in cities all over the world.

References: Please contact the editor for information on citations.



The *Urban Health and Wellbeing: a Systems Approach* (UHWB) programme, is a global science programme, of the International Council for Science (ICSU). The vision of the programme is: cities functioning as integrated complex systems which sustainably provide benefits for the health and wellbeing of its residents. It aims at (1) promoting and coordinating research, (2) developing and identifying data needs, (3) building and strengthening capacity and (4) communicating new knowledge.

The UHWB programme is sponsored by the InterAcademy Partnership (IAP) and the United Nations University (UNU). Financially it is supported by the Chinese Academy of Sciences (CAS), the Chinese Academy of Science and Technology (CAST) and the City of Xiamen.

The international programme office of the UHWB programme is hosted by the Institute of Urban Environment (IUE), Chinese Academy of Sciences (CAS) in Xiamen, China.

The Policy Briefs of the UHWB programme aim at highlighting and drawing attention to policy relevant findings and insights from research and researchers and communicating them with decisionmakers at all levels of society in order to encourage the co-creation of knowledge for healthy urban environments and people.



UNITED NATIONS
UNIVERSITY

Editor: Franz W. Gatzweiler
Tel: +86-592 6190 761, franz@iue.ac.cn

Design: Studio COSICO, Berlin

Publisher: Institute of Urban Environment (IUE)
Chinese Academy of Sciences (CAS)
1799 Jimei Ave., 361021 Xiamen, China

