Fostering capacity building and multidisciplinary urban health research in Latin America

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Fostering capacity building and multidisciplinary urban health research in Latin America

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The Latin American and Caribbean region is dense and highly urbanized with about 658 million people living in 33 countries (United Nations 2022). Around 80% of the population lives in urban areas (Habitat 2010), with 58% of this population residing in areas with air pollution that exceeds World Health Organization air quality guidelines (Gouveia et al. 2021). The region also has high levels of social disparity (OECD 2015). Eight of the 20 countries in the world with the highest levels of inequality are in Latin American and Caribbean (United Nations 2014). Although upgrading informal housing has historically contributed to providing housing solutions, informal settlements continue to be a prominent feature of dense urban areas in this region (Inostroza 2017). At least 24% of the region’s urban population still resides in informal neighborhoods (United Nations 2014). The Latin American and Caribbean is also infamous for its internal conflicts and violence, with 24.7 homicides per 100,000 inhabitants (United Nations 2019).

Despite these challenges of rapid urbanization, pollution, inequalities, informal settlements, and violence, the Latin American and Caribbean is also known for a number of innovative and successful urban initiatives that have had a positive impact on the wider determinants of health for individuals, populations and the planet. Examples abound, such as sustainable transport policies (Sarmiento et al. 2017b), urban development projects (Silveira et al. 2019, Baiza et al. 2021, Guevara-Aladino et al. 2022), social programs (Cecchini and Atuesta 2017, Ramos et al. 2021), community physical activity programs (Sarmiento et al. 2017a), food and nutrition policies (Popkin and Reardon 2018), and a significant emergence of feminist grass-roots movements in response to the unequal socioeconomic conditions that women experience (Gasparini and Marchionni 2015). Some examples of emerging and innovative policies shaping urban health have attracted attention and have been scaled up to other countries in the world, such as 1) bus rapid transit (BRT) in 182 cities globally (BRT Data 2022); 2) the Open Streets programs, which involve the temporary closure of main streets to motorized traffic in order to encourage leisure physical activities in 400 cities (Sarmiento et al. 2017a); 3) free physical activity classes in public spaces implemented in at least seven countries in Latin America (Diaz Del Castillo et al. 2017), and the exceptional experience of Community Fitness Center America (Andrade et al. 2018); 4) aerial cable cars designed to connect peripheral hillside neighborhoods with downtown in more than 25 cities (Cano Rubiano et al. 2020); and, 5) implementation of policies that target the food environment implemented in more than 25 cities (Duran et al. 2021).

Latin American urban policies, programs, and initiatives are rarely studied through a health lens. It is vital that such a focus play an enhanced role if progress is to be made on international policies and commitments, such as the New Urban Agenda and the United Nations Agenda for Sustainable Development. Collaborative action towards achieving urban health (SDG3) and good city planning (SDG11) will be essential to achieving the 17 Sustainable Development Goals (Habitat & World Health Organization 2020).

In this context, a specific focus on urban health in Latin American and Caribbean countries is critical to innovate theoretically and methodologically to help better understanding of the complex challenges, analyzing and testing comprehensive policies and programs that have been created, and learning how be still more effective. A focus on urban health is critical both to unlocking and answering, in part, key questions relevant to the health, livability, and well-being of the heterogeneous urban population across the region. Specific questions aligned with the Salud Urbana en América Latina (SALURBAL) project (Diez Roux et al. 2019) include:
(1) What are the city drivers of health and health inequalities among and within cities?
(2) How have communities initiated positive change, where is the community voice now, and what can be said about practices, partnering, and potential?
(3) How can we engage the scientific community, the public, and policymakers to disseminate and translate findings?

In response to these questions, the journal Cities & Health and its partners launched the special issue ‘Latin America and the Caribbean: Shaping urban form and health’. The aim of the special issue was to explore emerging issues for cities in the region of Latin America affecting the health of people, planetary health, and health equity through the lens of urban and territorial planning, and design and spatial governance. Planning for the special issue officially began at the 17th International Conference on Urban Health (ICUH) in 2021. This annual conference of the International Society of Urban Health was co-hosted by SALURBAL and the Pan American Health Organization. Together, these organizations have encouraged a stronger focus on what cities in Latin America can teach us, and how to bring these lessons to the global audience they deserve (ISUH 2021).

The 15 papers in the special Latin America and the Caribbean issue include research from 10 countries in the region (Figure 1). There is a good mix of types and foci of papers, with also a range of co-authors, hailing from North America, Central America, the Caribbean, and South America. This special issue comprises contributions ranging from case studies, provocative and reflective commentary, and contributions to the debate about approaches to empirical research on social determinants of health specifically when addressing urban health challenges for Latin America and Caribbean populations. The broad range of topics includes urban health in informal settlements (Cardona-Trujillo et al. 2022, Guevara-Aladino et al. 2022, Morais et al. 2022), COVID-19 community research (Díaz-Sánchez et al. 2022, Domingos et al. 2022, Ramirez et al. 2022), the food (de Menezes et al. 2022) and health and healthy behaviors environment (le Gouais et al. 2020, Cardona-Trujillo et al. 2022, Flores-Alvarado et al. 2022, Higuera-Mendieta et al. 2022, Teixeira et al. 2022), mental health (Karmann et al. 2020), health for children and adolescents (Ortigoza et al. 2021), and urban policy (Lein et al. 2020).

Underscoring the complexity of research and health outcomes in urban health, all papers report on research undertaken by multidisciplinary teams; with a range of research approaches including quantitative, qualitative, and mixed methods. Through including a combination of the social determinants of health and translational research, reflective praxis (Morais et al. 2022) and original research (Lein et al. 2020, Higuera-Mendieta et al. 2022) this issue highlights the value of including both decision-makers and community members to inform the research process. The papers in this special issue also speak to the importance of local and transnational networks for capacity building and conducting innovative research like the SALURBAL project (Diez Roux et al. 2019).

We hope you agree that this special issue showcases the rich and growing research and emergent scholarly activities in urban health across Latin American and Caribbean cities. Three main features of these papers need to be underscored and should continue being the focus of future research in the region:

(1) the co-creation of policy evaluations between academia, community, and policymakers;
(2) the use of multiple methods at different scales; and,
(3) the multidisciplinary approach within local and transnational networks.

In turn, this research focus is consistent with Cities & Health’s mission to support stakeholders, both academic and community, who are tackling the impacts of our built and natural urban environments on people’s health, health equity and planetary health. Highlighting diverse perspectives of the region’s urban health provides a unique opportunity to view and assess the progress of research,
implementation, and practice being undertaken in Latin American and Caribbean region, and its intersection with policy and practice relevant to the regional context. We also trust that the papers published here will contribute to future learning for other networks across the Global South and support a better understanding of urban health in low- and middle-income countries.

**Co-creation of policy evaluations between academia, community, and policymakers**

Tackling multifaceted, complex challenges such as urban and planetary health in Latin America and Caribbean cities require expertise and knowledge across different disciplines and sectors in partnership with local government, civil society, private sector, and local communities. The inter-transdisciplinary approach creates novel conceptual frameworks, and research strategies with diverse approaches (Pineo et al. 2021). As such, it requires the involvement of actors from both the scientific community and other sectors of civil society in order to understand and address real-world problems (Pineo et al. 2021). Across the Latin American and Caribbean region and in much of the world, the use of health arguments to justify urban policies outside the health sector remains all too limited (Lein et al. 2020). Nevertheless, this special issue presents examples of inter- and trans-disciplinary research and co-creation with the community and stakeholders, from the inception of policy evaluations through to the dissemination of research findings, which serve as an example for future policy evaluations (Higuera-Mendieta et al. 2022, Morais et al. 2022).

This research also highlights the importance of including both decision-makers from multiple sectors (health, transport, environment, urban planning, and housing) and community members in urban health research. It is through these kinds of collaborations that we can advance the understanding of the complexity of urban contexts and inform research on health outcomes in informal settlements (Domingos et al. 2022, Morais et al. 2022). The unconventional interaction of academics, policymakers, and community members on studies in vulnerable settlements in Brazil, Chile, and Colombia portrays that, although informal settlements are the manifestation of widespread inequity in Latin America, interventions in these contexts also vital for allowing us to clearly observe participatory and collaborative efforts, involving communities, to benefit communities (Morais et al. 2022). Furthermore, a scoping review of grey literature highlights the need to more effectively communicate scientific evidence on the health impacts of urban policy in the region. Within this context, interdisciplinary, cross-sector co-creation approaches for policy evaluation must be applied to assess potentially effective and hopefully scalable programs in the region.

**Multiple methods at diverse scales are needed for urban health research**

To adequately assess urban health research questions, data are required across a range of methods

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**Figure 2.** SALURBAL co-authors collaboration network. Each node relates to a specific country. The size of the node corresponds to the number of researchers in each country that were co-authors of scientific papers. The connecting lines correspond to co-author collaborations between countries. (Figure created by Sofia Baquero).
Urban Health Innovation from the Land of Magic Realism

We, the inventors of tales, feel entitled to believe that it is not yet too late to engage in the creation of the opposite utopia.


Luz Angela Aguilar Ortigoza • Visual Designer • luarecreativadigital@gmail.com

**Figure 3.** Land of magic realism.
and scales relevant to urban form and dynamics. For example, the use of mixed-methods data analysis approaches integrates quantitative and qualitative methods to understand different dimensions of a single research question. It can also help address expected and unexpected outcomes from the standpoint of citizens and decision-makers (Steinmetz-Wood et al. 2019). In this special issue, we present examples of research with a broad range of methods including qualitative participatory approaches using citizen science (Higuera-Mendieta et al. 2022), harmonization of complex data at the city level from 11 countries (Ortigoza et al. 2021), photo ethnography (Guevara-Aladino et al. 2022), and the use of fuzzy logic (Cardona-Trujillo et al. 2022). Future studies in urban health research should consider a rigorous integration of mixed methods with disaggregated data at the individual and geographic scales to better understand how different urban environments shape social and health inequalities among populations.

Multidisciplinary network for research in urban health in Latin America

The ICUH network, the SALURBAL network, and the Pan American Health Organization (PAHO) network of health cities, municipalities and communities are key for capacity building and providing support for research in the Latin American and Caribbean region. In this special issue, nearly half of the papers represent results from the SALURBAL project. SALURBAL is a multidisciplinary multinational network aimed at generating and disseminating actionable evidence on the drivers of health in cities in Latin America. SALURBAL and the closely affiliated LAC Urban Health Network include approximately 400 researchers, policymakers, and representatives from civil society organizations and non-governmental organizations across 26 countries (16 from the Americas, five from Europe, four from Asia, and Australia), 73 cities, 23 disciplines, and 181 institutions (Baquero et al. 2023). This cohesive and multidisciplinary network has grown rapidly while establishing a solid foundation of innovative and rigorous evidence for action on urban health while consolidating local capacity building for the future leaders and leadership in the region (Figure 2).

The development of this special issue of Cities & Health from Latin America provided a unique opportunity to increase the visibility of the urban innovation and collaborative multidisciplinary and transdisciplinary research taking place across this land of Magic Realism (Figure 3). The special issue allowed co-authors from 11 countries in Latin America and the United States to present their local and transnational research on urban health. In this context, it is pertinent to remember the words of the magnificent writer and Nobel Prize recipient Gabriel García Márquez, which underscore the importance of telling the Latin American story through the eyes and voices of the Latin American people.

The interpretation of our reality through patterns not our own, serves only to make us ever more unknown, ever less free, ever more solitary.

Acknowledgments

The Cities & Health editorial board would like thank Olga L. Sarmiento for spearheading this special issue. She has seen the project through from shaping the initial concept to final publication, along the way co-ordinating a team of co-editors and reviewers with both creativity and perseverance.

We also acknowledge the support of all our special issue partners, who have helped support the call for papers, the review of submissions and the dissemination of this work.

We are grateful to all the reviewers whose work supported the authors in improving and developing their papers. And, of course, we thank the authors who submitted papers to this issue – both those that were accepted and those that, following review, we were unable to publish. Finally, we wish to acknowledge you, the reader. We hope that you find material here to stimulate new thoughts (and hopefully actions) in the pursuit of better support for population and planetary wellbeing through the way we plan, design, and govern our towns and cities.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on lead guest editor

Olga L. Sarmiento is a Professor in the Department of Public Health in the School of Medicine at Universidad de Los Andes (Bogotá, Colombia). Her transdisciplinary research focuses on the relationship between the built environment, policy, and physical activity, with an emphasis on inclusive and sustainable community programs in Latin America. Dr. Sarmiento has been a board member of the “International Society of Physical Activity and Health” (ISPAH), the “Global Advocacy for Physical Activity” (GAPA), the “Urban Health Network for Latin America and the Caribbean” and the “International Society of Urban Health”. She is currently a researcher on the “Urban Health in Latin America” (SALURBAL) project, the “International Physical Activity, and Environment Network” (IPEN), and the “Stanford-Colombia Collaboratory on Chronic Disease” (S-C3). She has received distinctions from the Ministry of Sports of Colombia and the Institute of Sports and Recreation of Bogotá (Colombia)
for promoting healthy behaviors in Colombia through academic work.

A few words from our special issue partners

Salud Urbana en América Latina

Salud Urbana en América Latina (SALURBAL) is an international partnership focused on improving urban health and environmental sustainability across Latin America. Funded by the Welcome Trust, SALURBAL is the main activity of LAC-Urban Health, a regional learning network whose activities support research, training, and policy translation in urban health. Coordinated by the Drexel Urban Health Collaborative and including 13 institutional partners, the project spans 11 countries and nearly 400 cities, and includes nearly 200 team members from trainees to senior investigators, as well staff and local partners across the region. The study employs multiple methodologies (observational studies, policy evaluation and systems approaches) and has a special focus on engagement and policy translation. Project findings, including those highlighted in this Special Issue, will inform policies and interventions to create healthier, more equitable, and more sustainable cities worldwide. This Special Issue responds to an urgent need for evidence from the global south of the ways urban environments influence health and equity. We are encouraged by the growing focus on what cities in Latin America can teach us about other regions, and we are honored to have partnered with Cities & Health to bring these lessons to a global audience. www.drexel.edu/lac/salurbal/overview/

Ana Diez Roux and Katy Indvik on behalf of the Urban Health Collaborative, Dornsife School of Public Health, Drexel University, Philadelphia.

Pan American Health Organization

Improving the health and wellbeing of the populations of the Americas with equity is the main goal of the Pan American Health Organization (PAHO). The COVID-19 pandemic had an enormous impact on the region, it made visible and deepened the pre-existing inequalities, and it showed the importance of reducing them by addressing the social determinants of health.

Not a single city in the Americas was spared from the huge health, social and economic consequences of the pandemic. Cities implemented a variation of interventions fostering intersectoral action and strengthening community participation. The relevance of urban health, an area of long-standing interest for PAHO was once again confirmed.

Countries in the region implemented the Strategy and Plan of Action on Urban Health over a ten-year period, finalizing in 2021, showing important progress and remaining challenges. Other policies adopted by PAHO take forward the urban health commitment particularly the Strategy and Plan of Action on Health Promotion, and the recently approved Policy for recovering progress toward the SDGs with equity through action on SDH and intersectoral work. The network of healthy cities and municipalities in the region is an important asset in this regard.

To foster health in our cities, collaboration, interdisciplinary action, and research are crucial. Co-hosting the 17th International Conference of Urban Health in the Latin-American in 2021 was one of PAHO’s ways to advance the urban health agenda toward the achievement of greater health equity. www.paho.org

Francisco Armada Perez and Gerry Eijkemans, on behalf of the Pan American Health Organization.

The International Society for Urban Health

The International Society for Urban Health (ISUH) is the only global non-governmental organization solely focused on advancing urban health and health equity by addressing the broad determinants of health. We are very excited to be a partner in this important Supplement INSERT TITLE to the journal, Cities and Health, on the innovative ways in which cities in Latin America and the Caribbean are advancing health and health equity.

As the most urbanized region in the world, the Latin American and Caribbean region has long been a global leader in promoting health in cities, and ISUH has been a part of this progress for over a decade. In 2011, PAHO launched its regional Strategy and Plan of Action on Urban Health at the International Conference on Urban Health (ICUH) 2011 in Brazil. The Strategy and Plan set objectives over a 10-year period (2012-2021) to strengthen the organizational capacity and stewardship role of the Ministries of health and municipal governments in advocating for sustainable urban growth that puts human beings and communities at the center of planning.

PAHO has continued to promote and support local and national-level actors across the Americas seeking to implement a Health in All Policies (HiAP) approach to policymaking, a model uniquely suited to the urban environment. Its 2020 Strategy and Plan of Action on Health Promotion in the Context of the Sustainable Development Goals highlights the importance of intersectoral action and community engagement for addressing the social determinants of health.

The region has also maintained an important focus on health equity. In 2019, the PAHO Executive Committee approved the report of a Regional Commission appointed by PAHO and chaired by Sir Michael Marmot on ‘Just Societies: Health Equity and Dignified Lives’ to serve as a roadmap for achieving health and health equity.

Work on this Supplement was launched at ICUH 2021, held virtually in partnership with SALURBAL and the Pan American Health Organization and featuring a track highlighting urban health accomplishments in the region, many of which are discussed here.

We congratulate this volume’s editor, Professor Olga Lucia Sarmiento, and the researchers, practitioners and policy makers who have contributed to it, and thank them all for their important contributions to advance urban health and equity worldwide. www.isuh.org

Jo Ive Boufford, Carlos Dora and Giselle Sebag on behalf of the International Society for Urban Health.

Inter-American Development Bank

Can a city affect the health of its inhabitants? The answer is yes, and very much so. More than 50% of the health problems of individuals are caused by environmental factors, a much higher proportion than that corresponding to access to health services or genetic factors. However, in the training of those who design and operate cities (whether architects, planners, or urban planners) it is not yet fully ingrained how
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