Linking evidence to action on social determinants of health using Urban HEART in the Americas

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ABSTRACT

Objective. *To evaluate the experience of select cities in the Americas using the Urban Health Equity Assessment and Response Tool (Urban HEART) launched by the World Health Organization in 2010 and to determine its utility in supporting government efforts to improve health equity using the social determinants of health (SDH) approach.*

Methods. *The Urban HEART experience was evaluated in four cities from 2010–2013: Guarulhos (Brazil), Toronto (Canada), and Bogotá and Medellín (Colombia). Reports were submitted by Urban HEART teams in each city and supplemented by first-hand accounts of key informants. The analysis considered each city's networks and the resources it used to implement Urban HEART; the process by which each city identified equity gaps and prioritized interventions; and finally, the facilitators and barriers encountered, along with next steps.*

Results. *In three cities, local governments spearheaded the process, while in the fourth (Toronto), academia initiated and led the process. All cities used Urban HEART as a platform to engage multiple stakeholders. Urban HEART's Matrix and Monitor were used to identify equity gaps within cities. While Bogotá and Medellín prioritized among existing interventions, Guarulhos adopted new interventions focused on deprived districts. Actions were taken on intermediate determinants, e.g., health systems access, and structural SDH, e.g., unemployment and human rights.*

Conclusions. *Urban HEART provides local governments with a simple and systematic method for assessing and responding to health inequity. Through the SDH approach, the tool has provided a platform for intersectoral action and community involvement. While some areas of guidance could be strengthened, Urban HEART is a useful tool for directing local action on health inequities, and should be scaled up within the Region of the Americas, building upon current experience.*

Key words   Urban health; equity in health; social policy; social medicine; health planning, methods; Brazil; Canada; Colombia; Americas.

The proportion of global population living in urban areas has increased from 13% in 1900 to 52% in 2010 (1), a 300% increase in just over a century. This trend in rapid urbanization is likely to continue, growing to 67% of global population by 2050. Currently, the Americas are the most urbanized region in the world,

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FIGURE 1. Inequalities in percentage of children < 5 years of age who are moderately or severely malnourished (stunted) across wealth quintiles in urban areas of seven countries, Region of the Americas, 2001–2010[a]
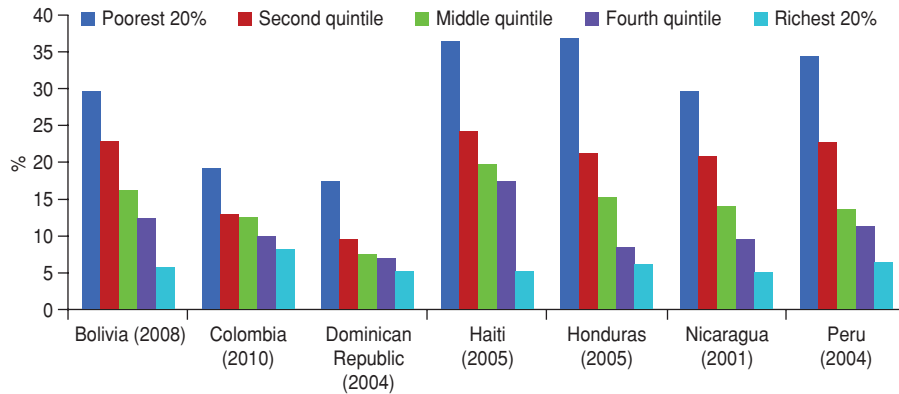
Source: World Health Organization. Global Health Observatory. Available from: http://apps.who.int/gho/data/node.main.232?lang=en Accessed on 31 March 2013.
[a] Based on World Health Organization analysis of Demographic and Health Survey data for the latest available year; with sample sizes of at least 100 children < 5 years of age for each urban wealth quintile.

with nearly 80% of the population living in urban areas in 2010 (2).

According to the World Health Organization (WHO), rapid urbanization is among the three demographic trends that will pose the greatest challenges for public health in the 21st century; the other two are globalization and population aging (3). While it is widely recognized that urbanization brings a number of social and economic benefits (4, 5), a 2010 joint report by WHO and the United Nations Human Settlements Program (UN-HABITAT) also emphasized the economic, social, and political inequalities that impinge on the opportunity to live a healthy life in a city (6–9).

The latest available data from the Americas indicate that there are systematic inequalities in health across socioeconomic groups in urban areas. Figure 1 shows the percentage of children under 5 years of age who are moderately or severely malnourished (height-for-age), or *stunted*, across urban wealth quintiles, for seven countries with available and comparable data. In Figure 1 it is evident that the children in all seven countries are more likely to be stunted with worse socioeconomic status, revealing a social gradient in child malnutrition. Children from the poorest wealth quintiles are 5.4 times more likely to be stunted than children in the richest wealth quintile, on average, for the seven countries. This form of systematic, unfair, and remediable inequality is considered a health inequity (10).

The imperative to reduce health inequities necessitates action on the social determinants of health (SDH, 11). Recognizing this link, WHO set up the Commission on Social Determinants of Health (CSDH, the Commission) in 2005. The Commission was tasked with articulating the role of the social determinants of health (SDH) in determining health inequities and providing WHO Member States with solutions to tackle them (12).

Nine networks of researchers, each focusing on a specific SDH theme, were set up to support the work of the Commission. The Knowledge Network on Urban Settings (KNUS) was one of the networks[6] that identified broad policy interventions relating to healthy urbanization (13). A key recommendation of the KNUS report was the development and global application of an equity assessment and response tool that would guide city governments and administrations, ministries of health, and other key stakeholders in taking action on health inequities.

Given that urban health equity indicators are lacking and needed within cities, WHO launched the Urban Health Equity Assessment and Response Tool (Urban HEART) in 2010. Urban HEART provides a framework that organizations

from diverse sectors can use together to maximize their collective impact on equity, while staying focused on their own unique roles and mandates. The tool guides users through a process of identifying health inequities and critical social determinants of health, to develop a plan of action to tackle those inequities (14, 15).

A process for complex problems, such as reducing health and social inequities, will not be a one-size-fits-all prescription. It will involve consideration of existing ongoing interventions and follow a cyclical rather than a linear process. Four desirable characteristics of such a tool are (14):

1. **Comprehensive and inclusive:** addressing health equity requires engagement of multiple sectors and communities in all aspects of the process. Indicators in Urban HEART are, therefore, organized under health outcomes and four SDH policy domains:
   (a) Physical environment and infrastructure
   (b) Social and human development
   (c) Economics
   (d) Governance
2. **Easy to use:** adopt a rigorous method, yet be simple and practical. For instance, Urban HEART uses a simple "red," "yellow," "green" report card format to show if communities are faring well or facing equity challenges that need to be addressed.
3. **Evidence linked to actions:** collect evidence that is most likely to inform action. Quantitative or qualitative evidence gathered should meet high standards of quality.
4. **Operationally feasible and sustainable:** designed to be mainstreamed into the work of participating organizations; not a stand-alone program.

The objective of this study was to examine the experience of select cities in the Americas using Urban HEART and to determine its utility in supporting endeavors to improve health equity.

MATERIALS AND METHODS

Program context

Urban HEART was developed in 2007–2010 as a collaboration among city and

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6   The other eight SDH themes were: health systems, women and gender equity, measurement and evidence, employment conditions, globalization, early child development, social exclusion, and priority public health conditions.

TABLE 1. City and country context for implementation of the Urban Health Equity Assessment and Response Tool (Urban HEART) for four cities in the Region of the Americas, 2010–2013

City, Country	City		Official language(s) (national)	Urban HEART implementation		
	Population (millions)	GDP per capita[a] (US$)		Area	Key objective	Status
Guarulhos, Brazil	1.30	7 130	Portuguese	City-wide, 14 health districts	Reduce inequities in health and SDH	Completed (2010)
Toronto, Canada	2.61[b]	43 660	English, French	140 planning areas	Reduce inequities in health and SDH	Ongoing; expected completion (2014)
Bosa District (Bogotá), Colombia	0.58	5 821	Spanish	5 zonal planning units (UPZs)	Reduce inequities in health and SDH	Completed (2012)
Medellín, Colombia	2.34	3 004	Spanish	City-wide, 16 administrative divisions	Achieve MDGs for health in all divisions	Completed (2012)

GDP: Gross Domestic Product.
[a] **Source:** Ni P. The global urban competitiveness report 2011. Cheltenham, UK: Chinese Academy of Social Sciences; 2012.
[b] **Source:** Statistics Canada. 2011 census: population and dwelling count. Available from: www.statcan.gc.ca/daily-quotidien/120208/dq120208a-eng.htm?WT.mc_id=twtB2000

national officials, international experts, and WHO. Major components of its development were:

- Review of relevant urban health and health equity tools, and incorporation of this knowledge and experience into the tool (16–21);
- Pilot version of Urban HEART tested in 2008–2009 in 17 cities of 10 low- or middle-income countries (Brazil, Indonesia, Iran, Kenya, Malaysia, Mexico, Mongolia, Philippines, Sri Lanka, and Vietnam) to assess its applicability to cities with wide-ranging population levels and social, political, and economic settings;
- Ad-hoc Advisory Group on Urban HEART composed of 12-members (policymakers, academics, and representatives of international organizations) convened face-to-face on two occasions to provide input based on their expertise and feedback from pilot sites.

During 2008–2009, a total of 10 face-to-face consultations[7] were organized with pilot sites and advisory group members to obtain relevant inputs for developing Urban HEART before officially launching in 2010. Of the 37 indicators recommended in Urban HEART, 12 were identified as "core".[8] The remaining 25

indicators were categorized as either "strongly recommended" or "optional" indicators. Technical and practical criteria were used to determine the "core" indicators (14):

- Availability of indicator from routine information systems
- Quality of disaggregated data
- Indicative of broader systemic issues
- Limited set of indicators that are actionable
- Sensitivity to inequities within cities
- Linked to other key international initiatives (e.g. , the Millennium Development Goals) or tools

The process of selecting core indicators is iterative, and further inputs from implementing cities may determine modifications in the indicator set, as appropriate. While Urban HEART recommends a specific list of indicators, city officials are expected to develop an adapted list of indicators to reflect local priorities, opportunities, and constraints.

Following the health equity assessment, Urban HEART guides users through a process of identifying priority equity gaps and the best practice responses to address those gaps. In the Urban HEART User Manual users have access to more than 300 best practices across the four SDH policy domains and suggested criteria to determine the best interventions in their specific local context (22).

Since 2008, WHO has trained nearly 400 city and country officials from 77 Member States on Urban HEART. PAHO/WHO, in collaboration with the City Government of Bogotá, Colombia, and the WHO Center for Health Development organized a training workshop

on Urban HEART for officials, academics, and experts from 21 countries in Bogotá in May 2011. As a result, cities in Argentina, Bolivia, Brazil, Colombia, Peru, Suriname, and Trinidad and Tobago are now using Urban HEART.

Data collection

This study analyzed the Urban HEART experience in four cities in the Americas from 2010–2013: Guarulhos (Brazil), Toronto (Canada), and Bogotá and Medellín (Colombia). These cities were selected to illustrate the use of Urban HEART in different socioeconomic and cultural contexts within the Region of the Americas (Table 1).

In Bogotá, the tool was applied in Bosa District whose poverty rate of 22% made it one of the poorest of the 20 districts in a city with an average poverty rate of 15%. Toronto, where the tool is still being implemented, was included to shed light on the feasibility of adapting Urban HEART to a high-income country context.

Reports submitted by the Urban HEART teams from the respective cities (23–26) constituted the main sources of information and data for this study; supplemental information came from first-hand accounts given by key informants engaged in the process in each city, and pertinent, official materials available on the Internet.

The study examined and evaluated the human and financial resources and networks used by each city to implement Urban HEART; the process by which each city identified indicators with the largest equity gaps and prioritized interventions; and finally, the facilitators and barriers encountered, as well as

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[7] The 10 face-to-face consultations were in: Tehran (April 2008), London (November 2008), Jakarta (December 2008), Kobe (January 2009), Yaoundé (April 2009), Brasilia (May 2009), Manila (October 2009), Amman (October 2009), and Nairobi (October and November 2009).

[8] The core indicators were: infant mortality, tuberculosis, diabetes, road traffic injuries, access to safe water, access to improved sanitation, completion of primary education, skilled birth attendance, fully immunized children, tobacco prevalence, unemployment, and government spending on health.

possible next steps. However, the impact or outcomes of the prioritized interventions were beyond the scope of this study, largely because efforts are ongoing and their impact on health inequities can only be determined over a longer timeframe.

RESULTS

Key partners and resources

In Guarulhos and Medellín, each city's Secretary of Health was the focal point for implementing Urban HEART. In Bosa District, a hospital managed by the Department of Health of Bogotá was responsible for Urban HEART. Toronto was an exception, where the Centre for Research for Inner City Health (CRICH), an academic entity, initiated and led the process (Table 2).

In Bosa District, Guarulhos, and Toronto, the focal points were able to involve partners from non-health sectors. In Medellín, the decision to focus on health outcomes primarily required support of the city's public health observatory.

Academia was not involved in either of the Colombian cities, whereas in Guarulhos, the University of São Paulo (São Paulo, Brazil) contributed to analyzing the indicators using Geographic Information Systems. Community group and NGO involvement in Guarulhos reflects a growing trend in participatory processes in Brazil over recent decades (27). In Toronto, community groups are playing an important role given their emphasis on neighborhood-level planning.

While it is difficult to get accurate estimates of financial expenses incurred, the majority of costs were borne by the city governments in Guarulhos, Toronto, Bosa District, and Medellín. Major activities undertaken by the city governments included the organization of workshops to engage stakeholders, printing of materials, advocacy campaigns, and supporting follow-up interventions.

In Bosa District and Guarulhos, where the local government led the process and a number of non-health sectors participated, the total number of working hours was reported as 2 000 and 2 414, respectively. In Medellín, where a more limited process was undertaken, 1 500 working hours were reported.

Assessment phase

All cities were able to obtain disaggregated data for indicators from routine systems and utilize the two data presentation tools in Urban HEART: (a) the Urban Health Equity Matrix (Matrix) and (b) the Urban Health Equity Monitor (Monitor) (14). The Matrix enables a cross-sectional analysis of indicators in color-coded format to compare performance across intended groups. The Monitor, also using a color-coded format, tracks inequities in indicators over time. The Matrix and Monitor use benchmarks, including a lower threshold of performance and an aspirational goal, to determine the relative performance of districts or specific indicators.

TABLE 2. Key partners and resources applied in implementing the Urban Health Equity Assessment and Response Tool (Urban HEART) in four selected cities in the Region of the Americas, 2010–2013

| City, Country | Focal point | Key partners | | | | Resources | |
		Health sector (government)	Non-health sectors (government)	Academia	Community/ NGOs	Financial source (US$)	Human resource estimate
Guarulhos, Brazil	Secretary of Health	Municipal Health Council Ministry of Health	City of Guarulhos • Employment relations • International relations • Social Welfare • Education • Environment • Habitat • Culture	University of São Paulo	ONG Cabucu Nucleus Batiura Stella Maris Child Nucleus Pastoral Care for Children	Guarulhos Municipality (NA) World Health Organization (US$ 10 000)	2 414 working hours (all staff)
Toronto, Canada	St. Michael's Hospital's Centre for Research on Inner City Health (CRICH)	Toronto Central Local Health Integration Network (Regional Health Authority)	City of Toronto Social Planning Finance and Administration Department Toronto District School Board	CRICH	United Way Toronto Woodgreen Community Services	Canadian Institutes of Health Research (US$ 197 000)	2 full-time equivalent for 2 years 480 working hours of steering committee and communications consultation (expected)
Bosa District (Bogotá), Colombia	Public Hospital Pablo VI	District Secretary of Health of Bogotá	City of Bogotá • Culture and Sport • Habitat • Planning • National Family Welfare Institute • Sub-directorate of Local Integration • Water and Sewage		Council of Community Participation in Health	City of Bogotá (NA) Pan American Health Organization (US$ 5 000)	2 000 working hours (all staff)
Medellín, Colombia	Secretary of Health	Public Health Observatory of the Mayor of Medellín				City of Medellín (NA)	1 500 working hours (all staff)

NA: Not available

TABLE 3. Indicators collected by Guarulhos (Brazil), Bosa District (Bogotá, Colombia), and Medellín (Colombia) for health equity assessment using the Urban Health Equity Assessment and Response Tool (Urban HEART), 2010–2012

Domain of Urban HEART	Guarulhos, Brazil	Bosa District (Bogotá), Colombia	Medellín, Colombia
Health outcomes	• Infant mortality • Under-5 mortality • Maternal mortality • Life expectancy at birth • Tuberculosis mortality • HIV/AIDS mortality • Diabetes mortality • Road traffic accident mortality • Homicide • Homicide by male/ female • Cancer mortality • Cardiovascular disease mortality	• Infant mortality • Under-5 mortality • Under-5 mortality caused by malnutrition • Under-5 mortality by pneumonia • Under-5 mortality by diarrheal disease • Maternal mortality • Perinatal mortality • Road traffic accident mortality • Tuberculosis incidence • Mumps incidence • Pertussis incidence • Suicide attempts incidence	• Infant mortality • Under-5 mortality • Under-5 mortality caused by malnutrition • Under-5 mortality caused by respiratory disease • Under-5 mortality caused by diarrheal disease • Maternal mortality • Syphilis incidence • Tuberculosis mortality • Dengue mortality
Physical environment and infrastructure	• Access to safe water • Households served by municipal solid waste management system	• Access to safe water • Access to improved sanitation • Floods occurrence • Sports and recreation equipment • Area covered by parks • Cultural facilities • Social welfare facilities • Health facilities • Educational facilities • Safety defense and justice equipment	—
Social and human development	• Literacy • Skilled birth attendance • Teenage births	• Low birth weight • Children underweight under-5 years • Acute malnutrition under-5 years • Exclusive breastfeeding for infants • Teenage pregnancies (10–14 years of age) • Teenage pregnancies (15–19 years of age) • Sexual violence • Domestic violence • Completion of primary education • Literacy	—
Economics	Owned housing Rented housing	• Families with members without food for lack of money • Population with '0' socioeconomic status level • Population with very low ('1') socioeconomic status level • Population with low ('2') socioeconomic status level • Population with medium-low ('3') socioeconomic status level	—
Governance	—	• Program coverage of 'Health to Your Home' • Population without affiliation to the health system (uninsured)	—

Each city selected its indicators based on guidance from Urban HEART and its local priorities (Table 3).

Guarulhos, Brazil. In Guarulhos, 19 indicators were collected for each of the city's 14 districts. Data were collated from Brazil's Mortality Information System (SIM), Information System for Primary Care (SIAB), Information System of Live Births (SINASC), National Program of Immunization, System of Food and Nutrition Surveillance (SISVAN), Information System for Public Health Budget (SIOPS), Electoral Court, Brazil Institute of Geography and Statistics (IBGE), and local information systems.

Toronto, Canada. In Toronto, the team recognized that some Urban HEART core indicators are less relevant to their context given the initial focus on low- and middle-income countries. Therefore, the team is working to adapt the Urban HEART indicator set for a high-income country context using a modified eDelphi technique.

Bosa District, Bogotá, Colombia. In Bosa District, 41 indicators were collected for the five Zonal Planning Units (UPZs). Data were sourced from Vital Statistics, the National Statistics Department, the National Police database of crimes, Institute for Recreation and Sports (IDRD), Colombian Family Welfare Institute, Ministry of Finance, hospital databases, and local information systems.

While a comprehensive analysis of the data is beyond the scope of this study, a subset of the Bosa Matrix is presented in Figure 2A to illustrate the identification of equity gaps. All UPZs fare poorly in infant mortality, unemployment, and teenage pregnancy in relation to their respective benchmarks. On the other hand, all UPZs are performing relatively better in incidence of tuberculosis and child malnutrition. Inequities across UPZs can be seen in road traffic accidents, park area per person, completion of primary education, and in the program coverage of "health to your home," a public health campaign.

Medellín, Colombia. Since the focus in Medellín was on health outcomes, nine health outcome indicators were collected for 16 districts from 2005–2010. Data from the Ministry of Health in

FIGURE 2A. Example of Urban Health Equity Matrix for Bosa District, Bogotá, Colombia: Inequities in health outcomes and the social determinants of health in Bosa District for 10 selected indicators across five Zonal Planning Units (UPZ), 2011

Selected indicators from Bosa District's Matrix	Zonal Planning Units (UPZ) of Bosa District					Benchmarks	
	■ Worse than baseline ■ Between baseline and goal ■ Achieved goal						
	Apogeo	Central	Occidental	Porvenir	Tintal Sur	Baseline	Goal
Infant mortality rate per 1 000 live births	36.7	17.6	13.2	13.8	27.9	10.8	9.9
Incidence of tuberculosis per 100 000 population	2.7	6.6	7.5	6.3	7.4	14.3	10.0
Road traffic accidents per 100 000 population	13.7	5.7	5.8	0.0	3.7	7.2	4.4
Percent of neighborhoods with sewerage coverage	100.0	99.2	99.3	97.0	90.0	< 99.1	> 99.1
Park area (m²) per person	4.1	2.1	0.7	1.0	3.7	2.0	4.9
Completion of primary education (%)	61.7	58.7	60.5	60.1	55.9	60.0	84.0
Prevalence of teenage (15–19 years) pregnancy (%)	28.2	40.0	33.0	40.0	58.0	21.7	17.9
Percent of under-5 years who are underweight	1.5	3.7	1.6	1.3	0.1	7.5	3.4
Unemployment rate (%) among population of working age	39.6	35.5	40.4	39.3	27.6	30.0	25.0
Program coverage (%) of "Health to Your Home"	23.4	51.4	36.4	30.7	14.0	23.0	40.0

Source: Hospital Pablo VI Bosa Ese I Nivel. Análisis de Equidad en Salud (Urban HEART) Localidad Séptima de Bosa, 2012. Bogotá (Colombia): Alcaldía Mayor de Bogotá; 2012.

FIGURE 2B. Example of Urban Health Equity Monitor from Medellín, Colombia: Tracking inequities in infant mortality rate per 1 000 live births across 16 districts in Medellín, Colombia, 2005–2010
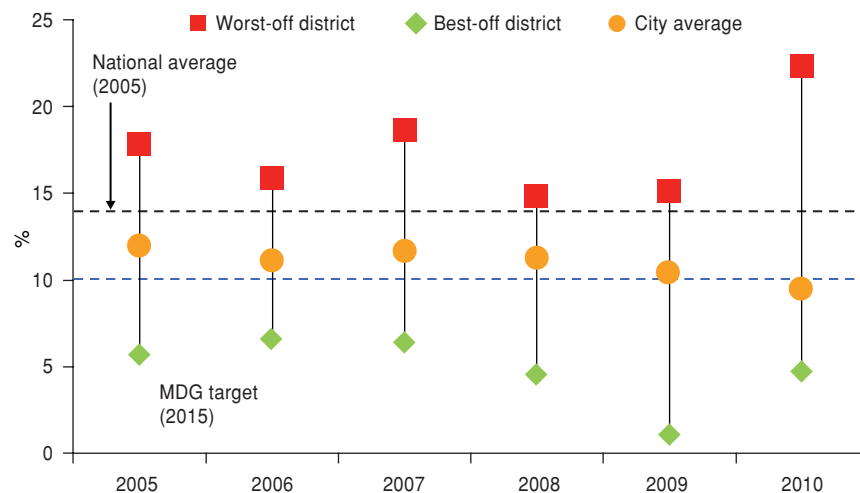
Source: Alcaldía de Medellín, Medellín Obra con Amor. Seguimiento a indicadores de salud, según instrumento Urban HEART, 2012. Medellín (Colombia): Alcaldía de Medellín; 2012.

Medellín were used. The Monitor for infant mortality rate in Medellín is shown in Figure 2B as an example of their assessment. The rate ratio for infant mortality between the worst-off and best-off districts was 3.2 in 2005 and 4.8 in 2010. Although at the city level, the MDG for infant mortality rate was achieved in 2010,[9] there are four districts that have not yet reached this goal. This analysis has enabled city officials in Medellín to adopt a focused approach for achieving the MDGs and reducing health inequities.

Prioritization of equity issues

Guarulhos, Brazil. In Guarulhos, based on a participatory diagnosis of the data, three districts—Cabuçu, Lavras, and

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[9] The MDG 2015 for infant mortality rate in Colombia is 10 per 1 000 live births based on a two-thirds reduction in mortality since 1990.

Vila Galvão—were selected for intervention. Community members from each district, together with the local government, developed interventions focused on (a) generation of income and (b) youth development.

Bosa District, Bogotá, Colombia. In Bosa District, the Urban HEART team recommended improving existing programs on (a) overcoming segregation and discrimination, (b) land use around water sources, and (c) good governance. These programs include a wide array of activities including, but not limited to: guarantee of integral development in early childhood; the "Bogotá Program" which defends, protects, and promotes human rights; recovery programs for conservation of water resources; and the "Bogotá Humana" program which promotes public participation in governance.

Medellín, Colombia. In Medellín, the assessment results showed that some districts require additional efforts and planned strategies to promote more equitable growth in the city. Therefore, the Urban HEART team recommended that under existing strategies and programs, districts not meeting the MDGs, be prioritized.

Actions for sustainability

Although Guarulhos chose to create new programs to tackle inequities in the city, Bosa District and Medellín decided to use the Urban HEART assessment to prioritize and strengthen existing initiatives. All cities developed a plan to monitor their progress on identified priorities.

In Guarulhos, it was agreed that Urban HEART would be used to develop annual action plans for the 14 health districts, and that the tool would be integrated with the planning of other departments of the city government. The experience of Bosa District has generated a demand to scale up Urban HEART to the entire city of Bogotá. In Medellín, Urban HEART and, in particular, the Urban Health Equity Matrix, will be used for conducting periodic health situation analyses in the city. Following the results of Urban HEART, an activity on "the improvement, strengthening, and dissemination of the Urban HEART methodology across the Colombian territory" was included in the technical cooperation agreement between

PAHO and the Ministry of Health of Colombia in 2013.

DISCUSSION

The experiences of implementing Urban HEART in the Americas are synthesized within the framework of the four desirable characteristics of the tool.

Comprehensive and inclusive

In all cities except Medellín, there was an attempt to conduct a comprehensive exercise considering not only health outcomes, but also SDH. In all three cases, the focal points were able to engage a variety of sectors. In Bosa District and Guarulhos, the political and institutional support from the mayors and city councils were a key facilitator; however, there were barriers in engaging non-health sectors. In Guarulhos, there was greater difficulty in engaging senior officials from non-health sectors throughout the process, even though the responses at the lower levels of the hierarchy were positive.

Ease of use

The simple and clear presentation of inequities through the Matrix and Monitor were considered to be a key factor in making Urban HEART accessible and understandable to all stakeholders in the process. Technical support and capacity building of key officials on the application of the tool, too, supported a smoother implementation process.

The concepts of "urban health" and "health equity" were not adequately understood by all stakeholders. This acted as an initial barrier to getting partners engaged in Guarulhos. Some difficulties were also encountered in gathering SDH data in Guarulhos due to arduous data-sharing mechanisms with other sectors.

Evidence linked to actions

The organization of indicators into the five domains provided a systematic method by which to identify, adapt, and analyze indicators for all cities. Conducting participatory diagnosis and focus group discussions further enhanced the prioritization process to consider indicators that are actionable. The mix of quantitative and qualitative analyses within

Urban HEART facilitates the process of linking evidence to actions.

Teams in Bosa District and Medellín faced difficulties in identifying appropriate benchmarks for each indicator. In Urban HEART, benchmarks for equity assessment are recommended to be either political, such as national or local targets, or technical, such as percentage improvement in an indicator, but more guidance could be provided.

Operationally feasible and sustainable

Collecting quality disaggregated data is a major constraint in using Urban HEART in low- and middle-income countries, globally. However, this has been less of a constraint in the cities included in this study since they had access to public health observatories and routine data collection systems.

An important facilitator for the process in Colombia was a team that was convinced of the utility of the tool and was dedicated, full time, to its application. Sustainable use of the tool, however, is dependent on the political will and financial capacity of the local government.

In Guarulhos, a change in local government mid-way through the process of Urban HEART posed a challenge for its continuity. This was overcome through advocacy with the new mayor and municipal council on the utility of the tool, primarily by community groups engaged throughout the process. This experience highlighted the importance of engaging local communities to ensure sustainability of actions.

Study limitations

There were two notable limitations of this study. First, the experiences of all cities that have used Urban HEART in the Americas were not captured for a more comprehensive analysis. Second, while the process of Urban HEART has been delineated, the impact on outcomes is yet to be determined.

Conclusions

The experience of Guarulhos, Toronto, Bosa District (Bogotá), and Medellín have provided valuable insight into the viability and utility of Urban HEART as a tool to promote local action on health inequities through the lens of SDH in

the Region. As a next step, cities in the Americas could undertake independent evaluations of their Urban HEART processes and outcomes just as 15 cities have done to date.[10]

As indicated by the cities in this study, there are some challenges to using the tool in different contexts. First, the core indicators' focus on MDGs does not resonate with cities of high-income countries. CRICH intends to share its process and indicators selected for To-ronto in order to provide a model for cities in high-income countries. Second, the health sector needs to be better supported in engaging other sectors and eliciting the mutual benefits of coordinated action on health inequities. Third, applying Urban HEART requires disaggregated data, which is either not readily available or not easily shared between sectors. Urban HEART would need to provide resources for cities to deal with these critical issues going forward.

Nonetheless, Urban HEART has provided local governments with access to a simple, systematic, and practical method with which to assess and respond to health inequity. It has also raised awareness of the link between health equity and SDH among a wide variety of stake-holders, including non-health sectors. A framework of indicators with the flexibility for local adaptation has enhanced the acceptance of this tool in the Region. Cities considered in this study have attempted to use the findings to inform existing initiatives or have integrated Urban HEART in cyclical planning processes. They have also managed to largely self-finance the process, which has led to greater local ownership of the tool. Given the positive experience with Urban HEART in the cities considered, efforts to scale up the use of the tool within the Americas should be pursued to support local and national stakeholders in their endeavors to reduce urban health inequities.

Conflicts of interest. None.

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[10] The 15 cities with evaluations of Urban HEART are: West Jakarta, North Jakarta, and Denpasar (Indonesia); Tehran (Iran); Nakuru (Kenya); Ulaanbaatar (Mongolia); Davao, Naga, Olongapo, Paranaque, Tacloban, Taguig, and Zamboanga (Philippines); Colombo (Sri Lanka); and Ho Chi Minh City (Viet Nam).

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RESUMEN

De la evidencia a la acción sobre los determinantes sociales de la salud mediante el instrumento Urban HEART en la Región de las Américas

Objetivo. Evaluar la experiencia de determinadas ciudades de la Región de las Américas mediante el empleo del instrumento de evaluación y respuesta en materia de equidad en salud en medios urbanos (Urban HEART), introducido por la Organización Mundial de la Salud en el 2010, y determinar su utilidad para apoyar las iniciativas de los gobiernos para incrementar la equidad en salud utilizando el enfoque de los determinantes sociales de la salud (DSS).

Métodos. Se evaluó la experiencia de Urban HEART en cuatro ciudades: Guarulhos (Brasil), Toronto (Canadá), y Bogotá y Medellín (Colombia). Los equipos de Urban HEART de cada ciudad presentaron informes y estos fueron complementados por las explicaciones directas de informantes clave. El análisis tuvo en cuenta las redes y los recursos de cada ciudad utilizados para implantar el Urban HEART, el proceso mediante el cual cada ciudad determinó las brechas en materia de equidad y las intervenciones prioritarias y, por último, las barreras y los factores favorecedores detectados, así como las medidas a adoptar.

Resultados. En tres ciudades, los gobiernos locales lideraron el proceso, mientras que en la cuarta (Toronto), este fue iniciado y conducido por la comunidad académica. Todas las ciudades utilizaron Urban HEART como una plataforma para hacer participar a múltiples interesados directos. Se utilizaron las herramientas Matriz y Monitor de Urban HEART para determinar las brechas de equidad en las ciudades. Mientras Bogotá y Medellín establecieron prioridades entre las intervenciones ya existentes, Guarulhos adoptó nuevas intervenciones centradas en los distritos desprotegidos. Se adoptaron medidas en materia de determinantes intermedios, por ejemplo, el acceso a los sistemas de salud, y los DSS estructurales, tales como el desempleo y los derechos humanos.

Conclusiones. El instrumento Urban HEART proporciona a los gobiernos locales un método sencillo y sistemático para evaluar y responder a la inequidad en salud. Mediante el enfoque de los DSS, esta herramienta ha proporcionado una plataforma para la acción intersectorial y la participación comunitaria. Aunque podrían fortalecerse algunos aspectos relacionados con la provisión de directrices, Urban HEART constituye una herramienta útil para dirigir la acción local sobre las inequidades en salud y debe extenderse a toda la Región de las Américas aprovechando la experiencia actual.

Palabras clave Salud urbana; equidad en salud; política social; medicina social; planificación en salud, métodos; Brasil; Canadá; Colombia; Américas.