



OPEN ACCESS

# Building the social innovation for health ecosystem in Latin America: experiences and learning from SIHI-LAC

Lindi van Niekerk <sup>1,2</sup> Maria Isabel Echavarría <sup>3,4</sup>  
Jackeline Alger <sup>5</sup> Diana Maria Castro-Arroyave <sup>3,4,6</sup>  
Martha Milena Bautista-Gomez <sup>3,4</sup>  
Claudia Ivette Nieto Anderson <sup>5</sup> Briana Yasmin Beltrán,<sup>5</sup>  
Luis Gabriel Cuervo <sup>2</sup> SIHI Innovators in Latin America and The Caribbean

<sup>1</sup>Department of Global Health, London School of Hygiene and Tropical Medicine, Faculty of Public Health and Policy, London, UK

<sup>2</sup>Department of Health Systems and Services, Pan American Health Organization (PAHO/WHO), Washington, District of Columbia, USA

<sup>3</sup>Centro Internacional de Entrenamiento e Investigaciones Médicas (CIDEIM), Cali, Colombia

<sup>4</sup>Universidad Icesi, Cali, Colombia

<sup>5</sup>Universidad Nacional Autónoma de Honduras (UNAH), Facultad de Ciencias Médicas, Tegucigalpa, Francisco Morazán, Honduras

<sup>6</sup>Universidad de Antioquia, Medellín, Colombia

## Correspondence to

Dr Lindi van Niekerk, London School of Hygiene and Tropical Medicine Faculty of Public Health and Policy, London, UK; lindivn@gmail.com

Accepted 12 May 2022



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY. Published by BMJ.

**To cite:** van Niekerk L, Echavarría MI, Alger J, *et al.* *BMJ Innov* Epub ahead of print: [please include Day Month Year]. doi:10.1136/bmjinnov-2021-000898

## INTRODUCTION

Social innovation for health has grown in relevance and momentum across Latin America.<sup>1-5</sup> Yet, the potential of social innovation for health appears mostly untapped, with one reason for this being the limited investment to build strong ecosystems that can support social innovation initiatives.<sup>6-8</sup>

The Social Innovation in Health Initiative for Latin America and the Caribbean (SIHI-LAC) is an ecosystem approach to advance social innovation within health systems across this region. The paper presents the SIHI-LAC experience, the influence it has had on social innovation initiatives for health, and the lessons learnt over the past 6 years. In addition, this paper provides guidance to other countries and regions interested in strengthening their social innovation for health ecosystems.

## SOCIAL INNOVATION FOR HEALTH AND ECOSYSTEMS IN LATIN AMERICA AND THE CARRIBEAN

Social innovation has gained prominence in countries across Latin America and the Caribbean (LAC) as an approach to addressing social challenges, raising social participation, increasing empowerment, especially of marginalised groups, and bringing about systems transformation.<sup>2</sup> It has also become a niche for community-based research and the co-creation of knowledge.<sup>9 10</sup>

The principles of social innovation in LAC are firmly aligned to the more democratic paradigm of social innovation in which community and social participation, and social justice are key features.<sup>2</sup> This social innovation approach arose in opposition to the longstanding paternalistic top-down development approach in LAC.<sup>2</sup> The democratic paradigm differs from the technocratic paradigm, which is more expert-led and implemented from the top down, as is more common in European contexts.<sup>11</sup> As per Franz *et al*,<sup>12</sup> social innovation displays the innovative agency of civil society and movements.

The 2015 SI (social innovation)-DRIVE global and regional mapping study of social innovation initiatives found that the majority of social innovation initiatives in LAC were focused on poverty alleviation and sustainable development (77%), education and employment (52%), followed by health and social care (31%).<sup>2</sup> In the area of health, social innovation initiatives have focused on reducing inequities in healthcare access as well as addressing the social determinants of health.<sup>3 6</sup> The SI-DRIVE study also found that the majority of social innovation initiatives remain local and are not transferred to regional, national or international levels.<sup>8</sup> This reduces the widespread impact these innovations could have. The success of social innovations to achieve their aspired goals is not only dependent on their existence but also on

the extent of their social-institutional embedding.<sup>7 13</sup> Scholars have thus increasingly moved away from an overemphasis on innovation heroes, but rather highlighted the value and importance of social innovation ecosystems, to enhance the impact of social innovation.<sup>8 14 15</sup>

Social innovation ecosystems comprise a multitude of actors and organisations from different social sectors such as government, private sector, academia and civil society, and collaboratively shape innovations and support their social-institutional embedding.<sup>16–18</sup> Pel *et al* go further to describe three constituent components of social innovation ecosystem as (1) *local embedding*, through hubs and labs providing resources and technical assistance; (2) *translocal connectivity*, through local and international networks of like-minded people; and (3) *discursive resonance*, through communication infrastructures that promote social innovation initiatives to gain political and scientific authority.<sup>13</sup> Social innovation ecosystems have a deeply relational quality, promoting new relationships among actors from different backgrounds.<sup>13 19</sup> Ecosystems recognise social innovation initiatives, empower them, test them, and support their absorption into existing systems.<sup>8 13 19</sup> To see the advancement of social innovation for health initiatives in Latin America and the Caribbean, building strong supportive ecosystems are imperative.

### SOCIAL INNOVATION IN HEALTH INITIATIVE IN LATIN AMERICA AND THE CARIBBEAN (SIHI-LAC): AN ECOSYSTEMS APPROACH

The Social Innovation in Health Initiative (SIHI) is an international network of partners including academic and research institutions, non-governmental organisations, intergovernmental and multilateral agencies, international development agencies, and philanthropic organisations.<sup>20 21</sup>

SIHI-LAC was launched in 2017. SIHI-LAC was established as the regional extension of the global Social Innovation in Health Initiative at the WHO, under the coordination of TDR, the Special Programme for Research and Training in Tropical Disease. The SIHI-LAC Secretariat is a collaboration between the Centro Internacional de Entrenamiento e Investigaciones Médicas in Colombia (CIDEIM) and the Pan American Health Organization (PAHO) that has been supported through key collaborations led by champions in the TDR Regional Training Center, which is located at CIDEIM, and its broader network including the Universidad Nacional Autónoma de Honduras (UNAH), the Universidad Icesi and the Universidad de Antioquia in Colombia (see [figure 1](#)).

The two academic institutions, CIDEIM and UNAH, operate as ‘social innovation hubs’ working directly with the social innovation initiatives, while PAHO and TDR, through the Global SIHI Secretariat, provide

strategic support, technical guidance and mobilisation of resources.

SIHI-LAC is an ecosystems approach toward enabling and enhancing social innovation for health, to strengthen health systems and healthcare delivery for the achievement of Universal Health Coverage. To achieve these goals, SIHI-LAC operates in each of the three constituent dimensions described by Pel (see [table 1](#)).<sup>13</sup> At selected intervals, social innovation initiatives are publicly crowdsourced across Latin America and the Caribbean and adjudicated by an independent expert panel that follows a pre-established criteria.<sup>4 5</sup> The top-rated social innovation initiatives are awarded by SIHI-LAC and SIHI-Global. The award entails a package of support which includes: research, capacity building activities, networking and promotion in health and scientific circles, and recognition (a plaque or certificate, media interviews, participation in award ceremonies).<sup>4</sup>

### THE INFLUENCE OF SIHI-LAC TO ENABLE SOCIAL INNOVATION FOR HEALTH IN LATIN AMERICA

#### Influence of SIHI-LAC on the evolution of social innovation initiatives

Since 2015, SIHI-LAC identified multiple social innovation initiatives through open crowdsourcing calls and provided a package of support to eight of these initiatives (see [table 2](#)). The crowdsourcing process by which these initiatives were selected, and the qualitative research methodology adopted to study these initiatives, have been presented in several other journal publications.<sup>3 4 22–24</sup> A qualitative assessment of these eight social innovation initiatives was undertaken between June and July 2021. This qualitative assessment consisted of semistructured interviews lasting 30–60 min with the founder of each of the selected social innovation initiatives. A total of eight virtual interviews were conducted by an independent researcher and a Spanish speaking researcher affiliated with the Secretariat or a SIHI-LAC partner institutions. Each interviewee granted consent and interviews were recorded and subsequently transcribed. Interviews that were conducted in Spanish were translated to English ahead of analysis. Nvivo V.12 was used to support data organisation. A thematic inductive analysis was conducted of the interview data.

The assessment aided in determining the influence of SIHI-LAC’s package of support on the evolution of these initiatives and in identifying the current needs of initiatives. [Table 2](#) presents an overview of these initiatives. Full case studies of each initiative are available on the SIHI online case repository.<sup>21</sup>

From the qualitative assessment conducted, it was found that the eight social innovation initiatives evolved in several ways since receiving the SIHI-LAC award. The implementation of a Brazilian initiative was discontinued due to political contextual challenges and a Paraguayan initiative could only



**Figure 1** SIHI-LAC partners and innovators. SIHI-LAC, Social Innovation in Health Initiative for Latin America and the Caribbean.

continue intermittently based on available funding. The remaining six initiatives were sustained over time through a mix of private funding, development donor funding, or partnerships with NGOs. These six projects continue to diversify and adapt their service offering based on the local country and community needs. Five initiatives originated as research projects and these initiatives produced evidence of impact through research, with the ongoing support of their local universities. All, except for the initiative from Brazil, received support from their national ministry of health. Five initiatives were successful in influencing changes in the district or national health policies. Notably, the ‘Zika Kids’ initiative from Colombia, which established national control and management protocols for the families of children infected with Zika virus, and the two initiatives from Guatemala provided alternate community-led approaches to inform the national Chagas disease prevention and control strategies. Two initiatives have grown beyond national borders. Training based on the Eco-Health Approach for Chagas disease was delivered in three countries in Central America, and the Mamas del Rio Community Health Worker Initiative is being scaled up as a binational initiative between Peru and Colombia.

In terms of the influence of the SIHI-LAC award on social innovation initiatives, the three main benefits mentioned by the interviewees included: national legitimisation of the initiatives due to the recognition it received; enhanced capacity due to regional (LAC) workshops and events; and the value of the research conducted that gave the initiatives greater scientific and international credibility. Each of these benefits will be discussed in greater detail below.

First, the recognition by health agencies such as PAHO/WHO and TDR had a strong influence on legitimising the initiatives within their national context. This recognition led to the Integrated Rural Health Model in Colombia receiving greater support from their district government and a national agreement with the Ministry of Health. It also unlocked further funding opportunities for the Mamas del Rio initiative from Peru, as explained below:

‘The award gave us visibility. Receiving an award in Washington DC (at the Pan American Health Organization), was very well viewed by organisations that later gave us funding like the IADB (Inter-American Development Bank) and also by the organisations that were already giving us funding like the Grand Challenges Canada.’ (Innovator 008)

**Table 1** SIHI-LAC's Ecosystem Support Package 2015–2021

Ecosystem dimension	Subcomponents	Support activities undertaken
Local embedding	Social innovation university hubs	<ul style="list-style-type: none"> <li>▶ 3 completed crowdsourcing contests to identify social innovations in health implemented in LAC (2015, 2017, 2019, with 2021 underway).</li> <li>▶ 8 case study research projects were conducted and published online.<sup>21</sup></li> <li>▶ Technical assistance to selected innovations for example, proposal writing.</li> <li>▶ Presentations about social innovation at key forums and other institutions in LAC.</li> <li>▶ Participation in university courses and integration with training programmes.</li> <li>▶ Leveraged resources from the Ministry of Science, Technology, and Innovation in Colombia.</li> </ul>
Translocal connectivity	SIHI-Global Network	<ul style="list-style-type: none"> <li>▶ SIHI Global Convenings, include networking with philanthropic organisations, funders and experts (Geneva, Annecy, Cape Town, Uganda).<sup>21</sup></li> <li>▶ SIHI Inter-Hub virtual event participation to share work and experiences.<sup>21</sup></li> <li>▶ Resource sharing, toolkits and the development of reporting standards.<sup>33–35</sup></li> </ul>
	ALACISS Regional Innovator Network	<ul style="list-style-type: none"> <li>▶ Bimonthly virtual webinars &amp; opportunities for regional (LAC) actors to present their projects.</li> <li>▶ Strengthening the capacity of innovators and researchers in community-based research methodologies and design thinking, through in-person workshops.</li> <li>▶ Virtual communication group sharing the latest opportunities.</li> <li>▶ An online repository of methodological papers, case studies, press and media releases, podcasts, seminars, etc.</li> <li>▶ Participation in publications in peer-review journals.<sup>22,29</sup></li> </ul>
Discursive resonance	Awards and recognition	<ul style="list-style-type: none"> <li>▶ Recognition at PAHO's Universal Health Day 2019 including the development of promotional videos, and public recognition of the initiatives (including a plaque handed by PAHO's Director to innovation delegates).<sup>25</sup></li> <li>▶ Recognition by PAHO country offices (ceremonies).</li> <li>▶ Media interviews and press releases.</li> </ul>
	Communication	<ul style="list-style-type: none"> <li>▶ Promotion via the social innovation in health website and PAHO's Health System Innovation Portal.</li> <li>▶ Communication of events and activities via monthly newsletters and social media.</li> <li>▶ Articles in SIHI produced publications.<sup>21</sup></li> <li>▶ Case videos of each social innovation.<sup>21</sup></li> <li>▶ Awareness-raising among relevant development agencies and the participation of stakeholders in the independent innovation review panels.</li> </ul>

ALACISS, Alianza Latinoamericana y del caribe en Innovación social para la salud; PAHO, Pan American Health Organization; SIHI-LAC, Social Innovation in Health Initiative for Latin America and the Caribbean.

Although SIHI-LAC did not provide any direct financial support to initiatives, the recognition, and network it provided supported social innovation initiatives to establish new funding and partnership opportunities with other institutions. For example, the awards ceremony at the UNAH allowed decision-makers from the University Hospital and Ministry of Telecommunications to learn about the MosquitiaMed initiative, and subsequently, a multipartner agreement between these institutions enabled them to scale up nationwide in Honduras. As reflected by the founder, the SIHI-LAC award also positioned them to receive further recognition.

Popular forms of communication media and channels were used. Innovations were featured on the SIHI website, on national and organisational news, in press releases, at regional (LAC) awards, and even in a language learning course.<sup>25–28</sup> Innovators stated that national recognition of the initiative was as important as international recognition. Interviewees reflected that national recognition can be done to an even greater extent through more local public media dissemination via television broadcasts, radio, or podcasts. In this way, communities too will become more aware of how the social innovation initiatives could benefit

them. SIHI-LAC produced case microdocumentary videos that served as both a communication tool that can be used by the social innovation initiative, as well as an educational teaching resource that supported the embedding of social innovation for health into local university curricula.

‘Well, they (SIHI-LAC) made visible the work that had been done, and really, these recognitions strengthen and help us a lot because they are already beginning to be referenced. For example, the FAO (The World Food and Agriculture Organisation) contacted us about a month ago. They had searched for experiences in innovation and they found us, as we were already documented (on the SIHI website)...I see a lot of utility in the video because it allows us to show our model more simply and comprehensively and more beautifully. After all, it is the community that is talking and showing everything (in the video). We can show the video having the seal, that the WHO recognises this innovation, that we are recognised, and that impacts. I consider that it is the one that is the benefits.’ (Innovator 002)

Second, workshops and webinars included in the regional innovator's network supported the evolution of the social innovation initiatives. The bimonthly

**Table 2** Social innovation initiatives over time (2015–2021)

Initiative name	Year awarded	Location	Founder	Challenge focus	Initiative summary	Evolution since awards
Indigenous Health Agent Professionalization Program	2015	Brazil	Researcher	Limited access to health services by indigenous communities and a lack of formally recognised indigenous health providers.	Designing and delivering a formal curriculum to equip indigenous community members to become community health agents. The educational programme was codeveloped with the community and adapted based on sociocultural and territorial realities	<ul style="list-style-type: none"> <li>▲ A training programme was discontinued due to a lack of political acceptance of federal health authorities of indigenous community health agents.</li> <li>▲ Training programme materials have been packaged and shared in reports, books, and conferences.</li> </ul>
Integrated Rural Health Model	2019	Colombia	District health team	Limited access to health services in a geographically isolated rural community and ample social determinants influencing health negatively (low socioeconomic status, agricultural pesticide use, food scarcity, armed conflict)	A comprehensive primary health delivery model combining western and indigenous health practices, delivering care at home, coordinating referral pathways, and providing community training via an agricultural educational park and community health networks.	<ul style="list-style-type: none"> <li>▲ Expansion of alternative health promotive services provided, for example, music therapy, physiotherapy, yoga.</li> <li>▲ Enhanced maternal and perinatal health referral routes</li> <li>▲ Agricultural Park receives support from the local government and the Ministry of Economic Development. Two additional demonstration gardens were established.</li> <li>▲ Economic development through selling organic agricultural produce from the farming community</li> <li>▲ Continued receiving financial support from City district authorities</li> <li>▲ New collaborations with other stakeholders for example, World Food Program</li> </ul>
Zika Kids	2019	Colombia	Researcher	Suboptimal comprehensive care for children born with congenital abnormalities because of the Zika Virus.	A comprehensive inter-institutional specialist medical care programme addressing the needs of Zika children and their families and mobilising mothers to provide peer support.	<ul style="list-style-type: none"> <li>▲ Outreach clinics continued in two towns (Barranquilla and Neiva) and adapted to deliver consultations electronically (due to COVID-19)</li> <li>▲ Additional services added for example, psychiatry</li> <li>▲ Ongoing financial support from Johnson &amp; Johnson</li> <li>▲ A public policy developed for Zika Control and Management in Colombia</li> </ul>
Eco-health Approach to Fight Chagas Disease	2017	Guatemala	Researcher	A lack of addressing ecological factors responsible for Chagas disease.	Partnering with the community to address Chagas risk factors through improving housing and community education.	<ul style="list-style-type: none"> <li>▲ Spread approach through partner agencies (eg, World Vision)</li> <li>▲ Funding support received from IDRC, enabling scale up from 11 villages to 45 villages</li> <li>▲ Delivered training to the Ministry of Health in El Salvador, Honduras, and Nicaragua</li> </ul>
Comprehensive Health Approach for Chagas Disease	2017	Guatemala	Researcher	High rates of congenital Chagas disease in the Comapa region.	Partnering with the community and government stakeholders to address Chagas risk factors, educate the community and screen, pregnant women, for Chagas infection.	<ul style="list-style-type: none"> <li>▲ New partnership with an Argentine NGO 2019, that supported alternate funding opportunities and Ministry of Health (MoH).</li> <li>▲ New tools and educational materials development on prenatal and neonatal testing, in partnership with the MoH</li> </ul>

Continued

**Table 2** Continued

Initiative name	Year awarded	Location	Founder	Challenge focus	Initiative summary	Evolution since awards
MosquitaiMed	2017	Honduras	Medical doctor	Health worker shortages, especially specialist care, and low health literacy in the rural population of La Mosquitia.	An e-health service delivering educational content to local communities and information exchange between health providers in the rural and urban health centres.	<ul style="list-style-type: none"> <li>▲ The project was funded and absorbed by a private company and a full-time team has been appointed to run the project.</li> <li>▲ Expanded from working in five health facilities to 57 health facilities, across 10 regions.</li> <li>▲ Partnership established with the University, providing medical specialists to support the project. Thus, expanded from primary care to also specialist care.</li> <li>▲ Catalysed the discussion around m-Health in Honduras.</li> </ul>
Centre for Development of Scientific Research	2015	Paraguay	Researcher	High prevalence of Chagas disease in the rural communities living in the Chaco region.	A living labs methodology to engage all health stakeholders, including communities, in developing solutions to combat Chagas disease, for example, vector-resistant housing	<ul style="list-style-type: none"> <li>▲ Work with the communities continues intermittently based on available funding.</li> <li>▲ Collaborate with MoH to conduct community campaigns and provide information to the MoH to inform decision-making.</li> <li>▲ Established collaborations with other international universities.</li> </ul>
Mamas del Rio	2019	Peru	Researcher	Limited geographical access to maternal and child health services in the rural communities living in the Amazon.	A technology-enabled training programme for community health workers and traditional birth attendants on antenatal and post-natal care, complimented by community sensitisation and supportive supervision.	<ul style="list-style-type: none"> <li>▲ The initiative is being expanded as part of a binational plan between Peru and Colombia supported by the Inter-American Development Bank. It scaled from 84 communities in Loreto (Peru) to include 30 additional communities along the Peruvian and Colombian border (Mamas de la Frontera).</li> <li>▲ Adapted to support with the COVID-19 response in Peru and Colombia.</li> <li>▲ The initiative will become a part of the Colombian health system.</li> <li>▲ New political leadership in Peru leveraged as an opportunity to influence policy on the role of community health agents.</li> <li>▲ An independent non-profit was established to administer funding.</li> <li>▲ Additional research evaluations of the programme have been conducted as well as peer-review scientific publications</li> <li>▲ Received financial support as a response to COVID-19.</li> </ul>

IDRC, International Development Research Centre.

virtual cafés, an online seminar series, have served as a platform for dissemination and learning, in addition to facilitating connection and dialogue between different organisations, innovators, and researchers in LAC. The extent to which the different innovation initiatives benefitted from training was dependent on the life stage of the innovation. Early-stage innovations, as per the quote below, were greatly supported by the technical assistance provided by the hubs (SIHI-LAC partner institutions) as well as the connections forged through them, with other institutions in LAC. More established innovations expressed a greater need to be connected to like-minded individuals working in the same domain as they do, such that co-learning and momentum in their respective health domain can be achieved, for example, innovations working with indigenous communities. Regular WhatsApp messenger communication between network members was deemed beneficial as a way to find out about new opportunities and forge peer connections.

‘To be honest, at the time when SIHI-LAC got in contact with us, we were almost about to close shop. I mean, it was not possible for us to sustain the innovation anymore. And then we got the call, and they sent [hub member] to make the case. So, she started giving us ideas and technical support and she put us in contact with institutions that could help us with funding. Having this opportunity, not only the recognition but also a little bit of guidance in how to establish a project and make it grow and scale, helped us move to a different level.’ (Innovator 007)

Third, the research conducted by SIHI-LAC through the university-based hubs supported the evolution and recognition of social innovation initiatives in scientific and international health arenas. This was achieved via scientific peer-review publications and sharing case studies in the SIHI online repository.<sup>21 22 29</sup> Research presentations by the hub researchers gave innovations further institutional recognition, even within their institutions. Several of the SIHI-LAC innovation founders were researchers by profession and the opportunity to ‘be researched’ gave them an opportunity for reflection and a chance to identify new areas to explore or ways to adapt their initiatives.

‘On the one hand, about 20 days ago we had the innovation event at the institute (National Institute of Health Colombia), and we invited [name]. [Name] was a lecturer (from SIHI-LAC) and we were presented as one of the ‘Flag of Innovation’ projects, it was the Zika project. So, we also had a very large reception, more than 400 people connected from different parts of the world, and we could explain how we had managed to do such a social innovation, by starting from a translational project of basic research, then we did it. It was very, very successful!’ (Innovator 003)

‘Yeah, I think that they go through the process of the interviews and taking the team to the field to

talk to people from the communities, that helped me personally to focus my strategy.’ (Innovator 005)

### **Influence of SIHI-LAC on the health system and other institutions**

Social innovation for health has been an emerging concept in health systems and services and thus, advocacy and education of stakeholders have been key activities of the SIHI-LAC hubs in Colombia and Honduras. The hubs’ participation in high-level events and activities has supported the inclusion of social innovation for health within the broader national innovation agendas. For example, in Colombia, the Vice Presidential XXI International Mission of Sages (Misión Internacional de Sabios) and its commission on Life and Health Sciences emphasised social innovation as a strategic development to be supported by the new Ministry of Science and Technology.<sup>30</sup>

The Colombia hub received a growing number of invitations to present on social innovation for health at key events, such as the virtual event with the Ministry of Science and Technology in Colombia and Universidad El Bosque (2020) and at a national conference hosted by the Colombian National Institute for Health (2021) focused on innovation and creativity as contributors of social transformation in health.<sup>31</sup> The launch of SIHI Honduras during the XXVII Scientific Meeting and XIV Congress of Health Sciences drew regional interest and participation by regional health authorities.<sup>32</sup> The 2019 crowdsourcing call awards were delivered by PAHO’s Director and introduced by the Director of Health Systems and Services during the Universal Health Day, with the presence of international health authorities and leaders, and media.<sup>25</sup> The increased interest in social innovation for health in LAC can be attributed in part to the promotion, research, and advocacy efforts of SIHI-LAC and its champions.

Social innovation for health has also been introduced within university curricula. At the UNAH, social innovation for health is being introduced in the research methodology courses and as a part of the nursing post-graduate programme. As part of the capacity building and institutionalisation of social innovation for health, faculty members and stakeholders at the university have been trained on community-based participatory research methodologies and crowdsourcing processes, and a ‘research group’ on social innovation for health is now being established.

### **LESSONS FROM THE SIHI-LAC EXPERIENCE**

Several lessons, guiding future action can be drawn from the SIHI-LAC experience in building the social innovation for health ecosystem.

#### **Bringing into the light**

Although community participation initiatives in Latin America and the Caribbean are common,

social innovation for health equity, health services, and health systems remain a relatively new concept. Existing social innovation initiatives are often hidden from health systems, as not all social innovation actors come from the health sector, thus lacking the knowledge of how to communicate and disseminate their work most effectively.

The work and efforts of SIHI-LAC have significantly contributed to building a critical mass around this topic, most notably through the identification of locally embedded social innovation initiatives through crowdsourcing, engaging academics to research these initiatives, building relationships with local stakeholders, and ‘awarding’ social innovation initiatives. Although more than 100 initiatives in the LAC have been identified, only eight exemplar social innovation initiatives have been studied. These case studies have served to cast a spotlight on the potential role and application of social innovation in health.

Identifying more social innovations require crowdsourcing calls that reach a broader range of grassroots communities. Where internet infrastructure is still limited, this could be done by tapping into more local media networks, such as community radio stations.

As the concept of social innovation becomes better known, research on the topic is increasing, and peer-review publications are supporting the dissemination of social innovation initiatives and their impact. The evidence gained on social innovations for health, and published in scientific peer-review journals, has been important in highlighting the role social innovation initiatives can play to enhance equity in health, especially in the context of marginalised and rural populations. Publications alongside recognition gave social innovation initiatives the legitimacy to be accepted and integrated within national health programmes and to achieve cross-national replication.

For health systems, the intersectoral and the holistic perspective of health promoted by the social innovation initiatives offer the possibility of rethinking health in a broader sense. It provides an alternate way by which comprehensive community-based and community-driven health solutions can be implemented in policy and practice. Organisations and institutions pursuing entrepreneurship or technological innovation in LAC have shown an interest to include more community-oriented social innovation approaches as part of their value proposition. Thus, social innovation for health is a field with many possibilities yet to be explored.

#### Relational network facilitation

As social innovation initiatives evolve, the challenges of sustainability, expansion and increased expectations require the leaders of these initiatives to have the ability to reorganise, rethink and reallocate responsibilities. The relational and inclusive network built by SIHI-LAC has played an important role in supporting social innovation initiatives in these processes. Through

both in-person and virtual gatherings, connections have been fostered between innovators, communities, decision-makers and academics, locally and abroad. The network has led to peer-to-peer connections that supported the colearning and cross-pollination of experiential implementation knowledge, as well as strategic alliances with other stakeholders, which have aided the social innovation initiatives in their growth and sustainability. There is an opportunity to build on these relationships established such that it could enable greater peer-to-peer mentorship. Not only can learning and mentorship happen between successful initiatives, but even initiatives that did not sustain or scale have a valuable contribution to make.

LAC span a vast geographical region with multiple languages, and this may pose a challenge for network facilitation. Thus, it may be a better approach to focus on strengthening smaller subregional networks. There also remains a greater need for and mainstreaming social innovations within the health portfolios of local and international agencies. To this end, the strategic inclusion of high-profile experts from these agencies, as part of the selection panels for identification crowdsourcing calls, supports social innovation initiatives to become better known.

Effective network facilitation requires building trust among actors if new opportunities and resources are to emerge. The hub staff played an important role in building trust with the social innovation initiatives, investing dedicated time with them in their location of operation. In-person workshops led to establishing trusting human connections a lot faster than virtual communication. However, during the COVID-19 pandemic, when in-person gatherings were no longer possible, the pre-existing virtual network played a more important role than ever before to maintain the trust that had been previously established.

#### Multi-faceted communication

An indispensable part of ecosystem strengthening is strong communication. Bridging the communication divide between innovators, academics, policy-makers and communities is a particular challenge in social innovation and requires a crafty communication strategy. Each audience requires a different type of communication medium and language. Investing in the communication of social innovation does entail a significant time resource investment.

Communicating evidence via case studies and investing in peer-review journal publications were important for decision-makers. Microdocumentaries of the social innovation initiatives played an important role in engaging the minds and hearts of decision-makers. These video documentaries, using a storytelling approach, shared the lived experience of communities within which the innovators work as well as the positive outcomes of this work.

Another strategy that supported fostering momentum building was communication via other credible organisations. The award given to initiatives raised their profile and often led to them being featured by other organisations and media outlets. A gap that remains is to reach communities, since virtual communication often does not extend to rural and remote areas. To reach community audiences, reputable local country media outlets, such as community radio stations, remain an opportunity for future exploration.

## CONCLUSION

Ecosystems play an important role in the advancement of social innovation for health. In Latin America and the Caribbean, SIHI-LAC has operated as an enabler of the social innovation ecosystem through core activities that include: the identification, research, promotion, and connection of social innovation initiatives. These activities supported the evolution of social innovation initiatives by enhancing their legitimacy, profile, and strategic collaborations, thereby supporting their integration into the national health system or extending their reach beyond a single geographic locality. The evidence gained from studying social innovations further has widespread implications for other health and innovation programmes.

The ecosystem for social innovation for health has grown stronger in Colombia and Honduras where the SIHI-LAC hubs are based. Ecosystem development is a relational-based and trust-based endeavour. Thus, in order to achieve the same ecosystem strength in other countries, engagement and uptake by other regional institutions are needed. To that end, the establishment of new hubs and/or institutional partnerships may enhance this expansion into areas where it is especially needed, such as in the Caribbean and other remote areas where communities need to be engaged in order for health services to reach them and remain resilient.

The innovation ecosystem's work is often an overlooked and underfunded area, yet it is imperative to ensure that promising social innovation initiatives can achieve their intended impacts on the health of local populations.

**Twitter** Claudia Ivette Nieto Anderson @cnietoanderson

**Acknowledgements** We would like to acknowledge the social innovators who provided valuable inputs for this manuscript: Magaly Blas; Manuel Espinoza; Marcela Mercado; Iris Andrea Moya; Carlota Monroy; Pamela Pennington; Ana Lucia Pontes; Antonieta Rojas de Arias. We also thank Claudia van Niekerk for the illustration.

**Collaborators** SIHI Innovators in Latin America and The Caribbean: Magaly Blas; Manuel Espinoza; Marcela Mercado; Iris Andrea Moya; Carlota Monroy; Pamela Pennington; Ana Lucia Pontes; Antonieta Rojas de Arias.

**Contributors** LCG and LvN conceptualized the manuscript, LvN drafted the first manuscript and all authors provided further input and revisions for the manuscript. The contributors approved the manuscript for publication.

**Funding** This work was made possible through support from TDR, Special Programme for Research and Training, and the Pan American Health Organization (PAHO/WHO).

**Disclaimer** The authors alone are responsible for the views expressed in this article, and they do not necessarily represent the decisions or policies of PAHO or TDR. In any reproduction of this article, there should not be any suggestion that PAHO or TDR endorse any specific organization services or products.

**Map disclaimer** The depiction of boundaries on the map(s) in this article does not imply the expression of any opinion whatsoever on the part of BMJ (or any member of its group) concerning the legal status of any country, territory, jurisdiction or area or of its authorities. The map(s) are provided without any warranty of any kind, either express or implied.

**Competing interests** This work was made possible through support from TDR, Special Programme for Research and Training, and the Pan American Health Organization (PAHO/WHO).

**Patient consent for publication** Not applicable.

**Ethics approval** Not applicable.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution 4.0 Unported (CC BY 4.0) license, which permits others to copy, redistribute, remix, transform and build upon this work for any purpose, provided the original work is properly cited, a link to the licence is given, and indication of whether changes were made. See: <https://creativecommons.org/licenses/by/4.0/>.

## ORCID iDs

Lindi van Niekerk <http://orcid.org/0000-0002-8614-611X>

Maria Isabel Echavarría <http://orcid.org/0000-0002-9007-3507>

Jackeline Alger <http://orcid.org/0000-0001-9244-0668>

Diana Maria Castro-Arroyave <http://orcid.org/0000-0001-7322-5970>

Martha Milena Bautista-Gomez <http://orcid.org/0000-0002-8958-2099>

Claudia Ivette Nieto Anderson <http://orcid.org/0000-0002-5301-2609>

Luis Gabriel Cuervo <http://orcid.org/0000-0003-2732-5019>

## REFERENCES

- Moulaert F, MacCallum D, Hillier J. Social Innovation: Intuition, precept, concept, theory and practice. In: Moulaert F, MacCallum D, Mehmood A, *et al*, eds. *The International Handbook on social innovation: collective action, social learning and Transdisciplinary research*. Cheltenham: Edward Elgar, 2013: 13–24.
- Domanski D, Howaldt J, Schröder A. Social innovation in Latin America. *J Human Dev Capabil* 2017;18:307–12.
- Castro-Arroyave DM, Duque-Paz LF. Documentary research on social innovation in health in Latin America. *Infect Dis Poverty* 2020;9:41
- Mothe J, Vacaflor LE, Castro-Arroyave DM, *et al*. Exploring social innovation in health in central America and the Caribbean. *Rev Panam Salud Publica* 2020;44:e77
- van Niekerk L, Ongkeko A, Hounsell RA, *et al*. Crowdsourcing to identify social innovation initiatives in health in low- and middle-income countries. *Infect Dis Poverty* 2020;9:138.
- van Niekerk L, Manderson L, Balabanova D. The application of social innovation in healthcare: a scoping review. *Infect Dis Poverty* 2021;10:26.
- Moulaert F. Social innovation: Institutionally embedded, territorially (re) produced. In: MacCallum D, Moulaert J, Hillier J, *et al*, eds. *Social innovation and territorial development*. Farnham. UK: Ashgate, 2009: 11–24.

- 8 Domanski D, Howaldt J, Kaletka C. A comprehensive concept of social innovation and its implications for the local context – on the growing importance of social innovation ecosystems and infrastructures. *Eur Plan Stud* 2020;28:454–74.
- 9 Gerald Taylor A. Social innovation and participatory action research: a way to research community? *European Public & Social Innovation Review* 2017;2.
- 10 Chen E, Leos C, Kowitt SD, *et al.* Enhancing community-based participatory research through Human-Centered design strategies. *Health Promot Pract* 2020;21:37–48.
- 11 Montgomery T. Are social innovation paradigms incommensurable? *Voluntas* 2016;27:1979–2000.
- 12 Franz HW, Hochgerner J, Howaldt J. Challenge Social Innovation: An Introduction. In: Franz HW, Hochgerner J, Howaldt J, eds. *Challenge social innovation*. Berlin, Heidelberg: Springer, 2012: 1–16.
- 13 Pel B, Wittmayer J, Dorland J. Unpacking the social innovation ecosystem: an empirically grounded typology of empowering network constellations. *Innovation: The European Journal of Social Science Research* 2020;33:311–36.
- 14 Sgarali F. *Enabling social innovation ecosystems for community-led territorial development*. Rome: Fondazione Giacomo Brodolini, 2014.
- 15 van Niekerk L, Mathanga DP, Juban N, *et al.* Universities as catalysts of social innovation in health systems in low-and middle-income countries: a multi-country case study. *Infect Dis Poverty* 2020;9:90.
- 16 Howaldt J, Kaletka C SA. Social entrepreneurs: important actors within an ecosystem of social innovation. *European Public & Social Innovation Review* 2017.
- 17 Kaletka C, Markmann M, Pelka B. Peeling the onion: an exploration of the layers of social innovation ecosystems. modelling a context sensitive perspective on driving and hindering factors for social innovation. *European Public & Social Innovation Review* 2017.
- 18 Domanski D, Kaletka C. Social Innovation Ecosystems. In: Howaldt J, Kaletka C, Schröder A, *et al.*, eds. *Atlas of social innovation new practices for a better Futur*. Dortmund: Sozialforschungsstelle, TU Dortmund University, 2018: 208–11.
- 19 Lozano A V, Moliner LA, Murillo D. ‘Understanding the effects of social capital on social innovation ecosystems in Latin America through the lens of Social Network Approach’. *International Review of Sociology* 2019;29:1–35.
- 20 Halpaap BM, Tucker JD, Mathanga D, *et al.* Social innovation in global health: sparking location action. *Lancet Glob Health* 2020;8:e633–4.
- 21 TDR tSPfRaTiTD. Social innovation in health Initiative, 2021. Available: [www.socialinnovationinhealth.org](http://www.socialinnovationinhealth.org) [Accessed 28 Oct 2021].
- 22 Castro-Arroyave D, Monroy MC, Irurita MI. Integrated vector control of Chagas disease in Guatemala: a case of social innovation in health. *Infect Dis Poverty* 2020;9:1–9.
- 23 van Niekerk L, Ongkeko A, Hounsell RA, *et al.* Crowdsourcing to identify social innovation initiatives in health in low- and middle-income countries. *Infect Dis Poverty* 2020;9.
- 24 Bautista-Gómez MM, van Niekerk L. A social innovation model for equitable access to quality health services for rural populations: a case from Sumpaz, a rural district of Bogota, Colombia. *Int J Equity Health* 2022;21:23.
- 25 PAHO. Projects in Colombia and Peru WIN social innovation in health Prizes, 2019. Available: <https://www.paho.org/en/news/9-12-2019-projects-colombia-and-peru-win-social-innovation-health-prizes> [Accessed 28 Oct 2021].
- 26 Martins A. "Ese niño murió hace más de 30 años y me dejó marcada": la científica guatemalteca premiada por su lucha innovadora contra el mal de Chagas. *BBC News Mundo* 2021.
- 27 Sosa B. «Pamela Pennington una mujer de ciencia», un libro para inspirar a niñas y jóvenes, 2019.
- 28 DuoLingo: mamás del río / mothers of the river. *Spotify* 2020.
- 29 Moscibrodzki P, Li J, Peeling RW, *et al.* Social innovation in health: a critical but overlooked component of the COVID-19 pandemic response. *BMJ Innov* 2021;7:523–5.
- 30 Misión Internacional de Sabios 2019. *Propuestas y desafíos para la salud y la vida : una visión desde la misión. Propuestas del Foco de Ciencias de la Vida y de la Salud. Volumen 6: Ministerio de Ciencia, Tecnología e Innovación*, 2020.
- 31 Innovación social en Salud, foco principal del Congreso Institucional de Investigaciones | Universidad El Bosque.
- 32 Tecnología DEdGd. UIC realizó Con éxito El lanzamiento del proyecto SIHI lac NODO Honduras. suggest defining the region.
- 33 Social Innovation in Health Initiative. Resources for new partners, 2022. Available: <https://socialinnovationinhealth.org/resources/new-partners/2022>
- 34 Social Innovation in Health Initiative. Monitoring & Evaluation Framework, 2022. Available: <https://socialinnovationinhealth.org/monitoring-evaluation-framework/>
- 35 Kpokiri EE, Chen E, Li J, *et al.* Social innovation for health research: development of the SIFHR checklist. *PLoS Med* 2021;18:e1003788–e88.