



Start small, dream big: Experiences of physical activity in public spaces in Colombia



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ABSTRACT

Multi-sectoral strategies to promote active recreation and physical activity in public spaces are crucial to building a “culture of health”. However, studies on the sustainability and scalability of these strategies are limited. This paper identifies the factors related to the sustainability and scaling up of two community-based programs offering physical activity classes in public spaces in Colombia: Bogotá’s *Recreovía* and Colombia’s “Healthy Habits and Lifestyles Program-HEVS”. Both programs have been sustained for more than 10 years, and have benefited 1455 communities. We used a mixed-methods approach including semi-structured interviews, document review and an analysis of data regarding the programs’ history, characteristics, funding, capacity building and challenges. Interviews were conducted between May–October 2015. Based on the sustainability frameworks of Shediac-Rizkallah and Bone and Scheirer, we developed categories to independently code each interview. All information was independently analyzed by four of the authors and cross-compared between programs. Findings showed that these programs underwent adaptation processes to address the challenges that threatened their continuation and growth. The primary strategies included flexibility/adaptability, investing in the working conditions and training of instructors, allocating public funds and requesting accountability, diversifying resources, having community support and champions at different levels and positions, and carrying out continuous advocacy to include physical activity in public policies. *Recreovía* and *HEVS* illustrate sustainability as an incremental, multi-level process at different levels. Lessons learned for similar initiatives include the importance of individual actions and small events, a willingness to start small while dreaming big, being flexible, and prioritizing the human factor.

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1. Introduction

Public health practitioners and researchers have been challenged to think outside the box to bring healthy living into people’s daily lives (Plough, 2014; Robert Wood Johnson Foundation, 2013). This challenge involves allocating resources innovatively, establishing multi-sectoral collaborations, advancing policies that affect the places where people live, study, play, and work, and prioritizing social cohesion (Plough, 2014).

Abbreviations: PA, physical activity; HEVS, from the Spanish acronym *Hábitos y Estilos de Vida Saludable*; CELAFISCS, from the Portuguese acronym *Centro de Estudos do Laboratório de Aptidão Física de São Caetano do Sul*; CDC, Centers for Disease Control and Prevention; RAFA/PANA, *Red de Actividad Física de las Américas/Physical Activity Network of the Americas*; EIC, education, information, communication; REDCOLAF, *Red Colombiana de Actividad Física/Colombian Network of Physical Activity*.

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In this context, how to use public spaces to promote health has gained importance in multi-sectoral policies worldwide (Carrion, 2003; Brown and Kristiansen, 2009; Eyler et al., 2010; Schmid et al., 2006; Heath et al., 2012; National Heart Forum et al., 2007). Public spaces (e.g., parks, trails, *Ciclovías*, streets, and plazas) provide opportunities for active recreation and physical activity (PA) promotion (e.g., walking, biking, dancing) (Congreso de la República de Colombia, 2009; Ministerio de Agricultura y Desarrollo Rural et al., 2013; Ministerio de Cultura, 2008; Ministerio de la Protección Social, 2007; Torres et al., 2013, in this issue; Sarmiento et al., 2010a). However, the benefits of activity-friendly environments, go beyond PA to include improved mental health, increased well-being, greater neighborhood/social cohesion and social capital, and reduced carbon dioxide emissions and pollutants (Sallis and Spon, 2015). Public spaces are now seen as settings with great potential for health promotion and intervention (Frank et al., 2005; Hoehner et al., 2008; Sarmiento et al., 2010b, 2013; Maas et al., 2006; Parra et al., 2010).

This is the case of free PA classes, which have been classified as ‘promising behavioral-social interventions to promote PA’ (Hoehner et al., 2008, 2013), and have been implemented in at least seven countries in Latin America since the 1990s: *Plazas Activas* (Argentina); *Academia da Cidade, Academia da Saúde* and *CuritibaAtiva* (Brazil) (Parra et al., 2010; Mendonça et al., 2010; Reis et al., 2010); *Calles Abiertas* and *Parques Públicos* (Chile); *Ecuador Ejercítate* (Ecuador); *Escuelas municipales de aeróbicos* (Guatemala) (Municipalidad de Villa Nueva, 2012); *Actívate, Vive Mejor* (México); and *Recreovía, Medellín Feliz, Por su Salud Muévase Pues* and *Programa Nacional de Hábitos y Estilos de Vida Saludable* (Colombia) (Rios et al., 2015; Paez et al., 2015). Inspired by these experiences (Hipp et al., 2014), other countries have incorporated PA classes in *Ciclovías/Open Streets* or in research studies (San Diego Prevention Research Center) (e.g., United States, Canada (Alliance for Biking and Walking, Street Plans, 2010; Zieff et al., 2013), South Africa (Open Streets Cape Town, 2016), Australia (City of Perth, 2010), India (The Heritage School et al., 2013) and New Zealand (Healthy Promotion Agency et al.)).

However, except for studies in Brazil (Parra et al., 2013; Ribeiro et al., 2010; Knuth et al., 2010), little is known about the challenges for sustainability and growth that these programs face and how they can address them. Challenges to sustainability are an important consideration because 40% of new social programs are not sustained for more than a few years after their initial funding terminates (Savaya et al., 2008). Shediach-Rizkallah and Bone (1998) and Scheirer and Dearing (2011) proposed that a combination of program, organization and external factors enable program sustainability. These factors include flexibility, organizational capacity, compatibility with the host organization, the presence of champions, perceived benefits by participants/staff, partnerships/volunteers, and diverse funding sources (Savaya et al., 2008; Shediach-Rizkallah and Bone, 1998; Scheirer and Dearing, 2011; Scheirer, 2005; Schell et al., 2013). However, these factors are not yet sufficiently understood. Thus, the study of community programs that have delivered regular, free PA classes in public spaces for more than 10 years can usefully inform other initiatives.

This paper identifies challenges and strategies related to the sustainability and scaling up of two PA programs conducted in public places: Bogotá’s *Recreovía* and Colombia’s *Programa Nacional de Hábitos y Estilos de Vida Saludable* (“Healthy Habits and Lifestyles Program”; *HEVS* from its Spanish acronym).

2. Methods

2.1. Study setting

Colombia is a middle-income country with 47 million inhabitants. It is divided into 1102 municipalities grouped into 32 departments and the capital district of Bogotá, which has 7.8 million inhabitants (Anon.). It has no seasons (Anon., 2015). Colombia is one of the most unequal countries in the world in terms of income (Gini coefficient 53.5) (Anon., 2011).

Colombia’s National Constitution recognizes recreation, sports and leisure as rights of all and establishes their promotion and funding as a State responsibility (Asamblea Nacional Constituyente, 1991). The leading entity for planning, promoting and implementing PA initiatives is *Coldeportes*.

2.2. *Recreovía* and *HEVS*

These programs comprise free PA classes (e.g., *rumba*, folklore, aerobics, flexibility, martial arts) in public spaces (parks, plazas, streets, malls, and community centers) that incorporate music and are led by trained instructors (Fig. 1). We selected them as examples that could provide useful information for other initiatives: as programs with different life cycles that scaled up locally (*Recreovía*) and nationally (*HEVS*),



Fig. 1. a. *Recreovía* program from the *Parque Milenta Tejar* in Bogotá, Colombia. Photo: Ana Paola Ríos. b. National program-*HEVS* in Manizales, Colombia. Photo: César Augusto Jiménez.

and as programs with long trajectories in the continent: 20 and 13 years, respectively.

Recreovía is run by Bogotá’s District Institute of Recreation and Sports. In 2015, *Recreovía* offered PA classes in 41 locations, which we will refer to as hubs, in 95% of Bogotá’s districts (Fig. 2). Approximately 75% of the hubs were located in low-to middle-income neighborhoods. Classes were offered 7 days/week for 2 h on weekday mornings and/or evenings and 3–5 h on Sundays and holidays. An estimated 641,956 people participated in 2015. The majority of the participants were women (78.2%) aged 18–59 years (56.8%); 25% of the participants attended classes with relatives/friends. In 2015, *Recreovía* had 35 instructors and an annual budget of US\$ 872,974 (Torres et al., 2017; Rios et al., 2015).

HEVS is run by *Coldeportes*. In 2015, *HEVS* comprised 1) PA sessions (1–3 times/week); 2) monthly events offering a variety of PA activities; and 3) informational/educational outreach activities in community settings, schools, health services, and work sites. In 2015, *HEVS* was active in 19 departments and 211 municipalities (19% of all) (Fig. 2); 51,321 people participated in the 1414 groups offering sessions three times/week. *HEVS* had 338 staff and an annual staffing budget of US\$ 1.9 million (O. Lozano, personal communication, October 14/2015).

2.3. Data collection

Our research design best fits with Creswell and Plano Clark’s (2011) convergent mixed-methods design.



Fig. 2. Location of HEVS and Recreovía programs in Colombia in 2015.

2.3.1. Qualitative component

From May–October 2015, we identified interviewees with experience in and knowledge of the programs. We used snowball sampling and all suggested interviewees were interviewed until all the programs' life cycles were accounted for and little or no new information emerged. Access to data was another consideration for choosing these study cases. For *Recreovía*, we interviewed former ($n = 2$) and current ($n = 1$) coordinators. We analyzed sustainability and scalability in 10 interviews previously conducted as part of a 2012 study by one of the authors (Paez et al., 2015) with former ($n = 5$) and current ($n = 5$) coordinators/instructors. For *HEVS*, we interviewed former ($n = 1$) and current ($n = 3$) national coordinators and local coordinators/instructors ($n = 3$). Interviewers asked about the programs' history, growth/changes, structure, policy, funding, alliances, training, and challenges. Interviewees provided verbal consent for the interviews to be audio recorded, and these were transcribed verbatim.

We reviewed press releases, guidelines and policy documents to obtain additional information. This review encompassed searches of the Internet and institutional websites using the terms *Recreovía*, *Colombia + Activa + y + Saludable* and *Hábitos + y + Estilos + de + Vida + Saludable*. Interviewees suggested additional non-indexed documents.

2.3.2. Quantitative component

We requested information from program coordinators to build databases. *Recreovía's* coordinators provided: 1) the overall budget from 2003 to 2015, 2) the number of hubs from 1995 to 2015, 3) the number of instructors from 1995 to 2015, and 4) the number of participants/hub for 2001–2015. Information was not available for the years 1995–2002, 2004, and 2007–2008 (budget); 1999, 2002–2003, and 2005 (hubs); 1997–1999, 2001–2003, 2005, and 2008 (instructors); 1995–2000 and 2008–2009 (participants). To complement *Recreovía's* data, we reviewed reports from the Chamber of Commerce and the District Audit Office. *HEVS* databases for those periods were not available.

The Institutional Review Board of Universidad de los Andes (Bogotá) approved all protocols.

2.4. Analysis

2.4.1. Qualitative component

We defined sustainability as a dynamic set of processes that allowed for the continued delivery of a program's activities and policies in an identifiable form even if modified (Shediac-Rizkallah and Bone, 1998; Scheirer and Dearing, 2011). Scaling up was defined as an increase in coverage, scope, or range of activities (Mangham and Hanson, 2010). Based on Scheirer's and Shediac-Rizkallah and Bone's sustainability frameworks (Shediac-Rizkallah and Bone, 1998; Scheirer and Dearing, 2011; Scheirer, 2005), we developed preliminary categories. ADC, PR and DP independently coded all *Recreovía* transcripts; ADC and SG independently coded all *HEVS* transcripts. We inductively identified four new categories. We developed the final categories by consensus and used them to index all transcripts (Table 1). We used charts including summaries and verbatim texts grouped by each category across all respondents to cross-compare the information within and between programs. We used the document review to create a chart with main events, actors and policies of both programs, complemented with information from the interviews.

2.4.2. Quantitative component

We calculated means and medians for *Recreovía's* numbers of users, hubs, and instructors across time. *Recreovía's* budget was deflated (inflation adjusted) based on the budget for 1995 to make values comparable over time. The database was created in Excel. Descriptive analyses were conducted using Stata14.

Table 1
Definition of analytical categories.

Category	Definition
Program setting*	
Funding	Nature of original sources of funding: public, private, community; in-cash, in-kind.
Evaluations	Evaluations have documented effectiveness.
Flexibility	The ability to adapt to meet local needs/conditions.
Training	Profile of human resources, training component.
Perceived benefits	Perception of benefits from citizens/users/staff.
Volunteers	Volunteers are included in the delivery of services.
Organization setting*	
Champions present	Leader with access to upper management, an influence on, or control over, day-to-day program operations.
Compatibility with mission of host organization	The fit of the programs within the existing organizational mission and/or its standard operating procedures.
Organizational capacity	According to interviewees, the organization has the resources, skills, and/or stability and strength necessary to effectively manage the program and its activities.
External setting*	
Legislation	Adaptation of programs to policies and regulations or amendment or design of policies that incorporate the programs.
Compatibility with government goals	Consistency/alignment between the programs and local/national government goals.
Partnerships/allies	Collaboration, cooperation or partnerships with other local/national institutions for in-kind funding, services, communications, or other support.
Community support	Community members support the programs' functioning or continuation.
Other sources of funding	Availability of other funding or resources.
Inductive categories	
Inspiration	Programs activities or approach are based on/adapted from similar programs.
Theory-based	Programs are based on or adjusted to theory or evidence.
Changes in administration	Impact of administration changes in the programs.
Regional context	Regional context for sports, PA and public health policies and trends.

* Adapted from Scheirer and Shediac-Rizkallah and Bone.

3. Results

In this section, we identify the challenges to sustainability and scaling up and describe the strategies used to address them.

3.1. Challenges

3.1.1. *Recreovía*

3.1.1.1. Insufficient participation. *Recreovía* began in 1995 as a complementary activity to *Bogotá's Ciclovía*, offering recreational alternatives to participants. It initially comprised a single hub with traditional games. This trial had very low attendance, and therefore, the coordinators implemented aerobics classes. Attracting participants to these new classes was challenging at first.

Recreovía was conceived as recreation on the street, not simply as aerobics. What they planned at that time was traditional games [...] This was not very well received. [...] So we started a pilot with aerobics (*Recreovía*-coordinator-A).

3.1.1.2. Adapting classes and teachers to suit public settings. The coordinators realized that offering PA in public settings required adapting the classes to hard surfaces and to a diverse group of participants. This highlighted the need to train their personnel and establish high standards.

We had to create an academy and design a training program because that type of training did not exist. It existed for aerobics instructors but not for instructors who were leading classes with thousands of people, which required special capacities, attitudes and skills (*Ciclovía-Recreovía-coordinator-B*; 2012 interview).

We realized that we were offering classes that only worked for those in the first rows... the rest were lost. We realized we had to work for everybody and started thinking about models to teach PA [...] It was hard for people to change to [classes] with less than 164 beats [per minute], which was inconceivable on asphalt. [...] We started thinking about ourselves as teachers instead of instructors (*Recreovía-coordinator-D*; 2012 interview).

3.1.1.3. Limited/reduced budget. At least three times over 20 years, *Recreovía* faced major budget reductions due to administrative changes, changing priorities, or austerity measures. The reductions varied from 2 to 78% with a median of 26%.

[...] money was reduced because the priorities changed to those of the Social Integration Secretariat. From being one of the institutes with the biggest budget in previous administrations, we ended being, let's say, the 30th out of 41 in terms of budget (*Recreovía-coordinator-A*).

3.1.2. HEVS

3.1.2.1. PA was invisible in public policy. During the 1990s–2000's, PA was nearly invisible in public policy. In 1997, the first PA programs in community settings were created in Colombia. However, PA was still absent in plans and policies from the health and sports sectors:

In 2001, the development plans of the health and sports sectors included nothing related to PA for health. The local department of health understood little about PA for health because they associated it with sports (*Coordinator/champion-A*).

3.1.2.2. Limited capacity to translate policy into action. The beginning of a national program was limited in its ability to implement and monitor policies, request accountability, and provide assistance beyond that of consultation or training. In 2003, the national program *Colombia Activa y Saludable* was created and managed by an advisory group within *Coldeportes* (*Ministerio de la Protección Social*, 2004). However, this group did not have a dedicated budget and also had other responsibilities. The local level faced a lack of trained personnel and resources. Thus, the program emphasized education-information-communication (EIC) activities and annual/bi-annual events.

[...] the departments did not have enough personnel to run the different programs. We usually told the person in charge of sports and physical education: "you are also going to coordinate PA and health". [...] The only thing we could do was to provide counseling and training. That was the biggest thing we could do from here [*Coldeportes*] because we didn't have resources [...] It was mainly a period of raising awareness because there were no resources, no structure, just good will (*Coordinator/champion-A*).

3.2. Strategies for continuation and growth

3.2.1. Flexibility

Both programs had a need and willingness to be flexible. Flexibility implies adapting programs to people's preferences, funding changes,

and diverse scenarios/conditions. Flexibility also facilitates innovation, and attracts and maintains participants. This flexible approach is a feature of "tactical urbanism's" call for small-scale, low-risk, low-cost interventions (*Lydon et al.*, 2011).

Recreovía's initial low attendance was addressed by a shift to aerobics, coupled with persistence (i.e., classes continued despite initial low attendance) and resourcefulness in attracting participants (i.e., staff and their relatives participated in the first classes so people would feel motivated to join).

We started from zero and piloted [the activity] in the first hubs. People did not participate at first, so during the first two months, participants were members of the staff. To accomplish their social service, students [who enlist in *Recreovía*] were required to attend the aerobic classes [...] After two months, the students left and the community continued. It worked (*Ciclovía-Recreovía-coordinator-B*; 2012 interview).

Recreovía grew slowly but steadily to 12 hubs in 1996 and to 31 hubs with 1.4 million participants by 2005. Between 2005 and 2009, *Recreovía* expanded to 79 hubs and 3.4 million participants. It started offering classes on weekdays, organizing large events, and establishing in-kind collaborations. It had its own budget and staff. Thus, *Recreovía* progressively transformed into an independent program.

In the case of HEVS, flexibility has to do with a "trial and error" approach that allows for testing adjustments and keeping up-to-date with changing trends, culture, and evidence.

[We work] step-by-step. I do not agree with the approach of making sudden changes each year, but instead we evolve slowly so that we can see how it is working and what the evidence tells us (*HEVS-coordinator-A*).

3.2.2. Capacity building

Both programs emphasized staff training. This training helped build the capacity of low resource municipalities and offer high-quality sessions to populations that would otherwise not have had access to them. Interviewees agreed that having good-quality teachers was a key factor for success: good teachers attract and maintain participants. However, maintaining skilled personnel required investing in workshops and in working conditions. In 2003, *Recreovía's* Teachers' Academy was created to select and train instructors. Since 2011, the National Training Program improves the skills of HEVS personnel. Budget reductions could therefore place programs at risk by threatening one of their main assets. Accordingly, investing in human resources was a trade-off that coordinators had to consider:

This year we decided to increase salaries at the expense of coverage because we realized that we were working in many municipalities but that we weren't doing it very well. We decided to focus on better training our staff (*HEVS-coordinator-A*).

The most important factor is our teachers. Maintaining attendance depends on the teachers. If the teacher doesn't have charisma or doesn't fulfill the expectations, we will lose participants (*Recreovía-hub-coordinator*; 2012 interview).

Both programs have expanded and been maintained due, in part, to people's attendance and perceived benefits, which are linked to the quality of the instructors. In turn, community support was key for maintaining/expanding services.

When the [co-funding] agreement was terminated, the leader said: "too bad, if there's no money, we can't do anything". People benefiting from the program – almost all inhabitants – protested. This forced [the local authorities] to continue hiring personnel, even if it

was only one person, to continue the program (Local-coordinator-HEVS).

3.2.3. Budget allocation and accountability

In the national program, a new co-funding scheme was implemented in 2008 to cover personnel costs. *Coldeportes* allocated national funds and the departments committed to a progressive increase in local funding. This strengthened existing initiatives and created new programs.

[...] We provided resources from *Coldeportes* to the local entities to start designing PA programs. That did not exist [before]. [...] With the seed money that *Coldeportes* gave to the local entities, new programs appeared in many departments; in other departments the program was reborn, and in others it was strengthened (*HEVS* coordinator-A).

This co-funding scheme led to two substantial changes: 1) *HEVS* progressed from an EIC approach and irregular events to offering regular PA sessions in almost all departments. Co-funding guaranteed the resources to hire dedicated trained personnel. 2) *Coldeportes* requested accountability to program goals and guidelines. In short, co-funding allowed policy to be translated into specific actions:

[...] Working with a very well-designed public policy with very well-devised guidelines, tangible goals, clear objectives but no resources, is going to leave it [the policy] as a document, It will not materialize [...] So given the departments' need to implement a PA program, it was obvious that they also needed a budget. This is why we launched public policy guidelines coupled with resources (*HEVS*-coordinator-A).

The experience of departments taking over full funding of the program had mixed results. According to the interviewees, some departments have been able to support most of their activities, while others have only offered activities sporadically or discontinued them. As of 2015, 19 of 32 departments had co-funded programs, and six programs operated using their own resources.

3.2.4. Diversification of funding

Funding sources for both programs include in-cash public funding from their host organization and in-kind funding from other government departments, civil society organizations/community, and private companies. These sources serve different purposes. To sustain high-quality personnel, both programs depend on public funding.

Currently, and even more with the upcoming changes in administrations, programs in 50% of the departments and municipalities cannot be sustained without the resources offered by *Coldeportes* (*HEVS*-coordinator-A).

However, in-kind collaborations are necessary to decrease costs, expand services, support logistics, and adapt to budget reductions. Fig. 3 shows *Recreovía's* number of hubs (Fig. 3a) and number of participants (Fig. 3b) by deflated budget from 1995 to 2015. In the first 8 years the budget increased significantly, but after 2002 we observed increases and decreases that could be associated with changing government priorities. Unexpectedly, neither the number of hubs nor the number of participants is strongly associated with the budget. This might be explained by in-kind collaborations, community support, and the work of champions. Adaptations included outsourcing logistics, obtaining in-kind funding (i.e., sound equipment, uniforms, logistics), reducing the number of hubs (from 74 to 41 between 2009 and 2015), relocating hubs strategically, reducing the number of instructors (from 115 to 35 between 2009 and 2015), and changing the working conditions. According to the interviewees, these adaptations, combined with activism through social networks/media, the dissemination of preliminary

evaluations (Rios et al., 2015), and the 20th anniversary celebration, helped prevent further reductions for 2015.

3.2.5. Champions at all levels

Both programs have had champions working at various levels and positions. Most champions worked at public sports departments, and a few worked in health departments. Most were experts in and passionate about their fields, and many were key players in the PA networks. They introduced PA into public policies, contributing to the programs' legitimization, and facilitating structural changes and budget allocations.

Specifically, the introduction of PA into Colombia's public policy was facilitated by the work of leaders and international events. The dissemination of the 1995 PA guidelines (Pate et al., 1995) was followed by the establishment of the pioneering program *Agita São Paulo* and the creation of a network of leaders connecting the US and Latin America (CDC, CELAFISCS/*Agita*, WHO/PAHO, and national leaders; this was later called the PA network of the Americas-RAFA/PANA (Departamento Administrativo del Deporte la Recreación la Actividad Física y el Aprovechamiento del Tiempo Libre-Coldeportes, 2014)).

The influence of this PA network on *HEVS* can be traced to the participation of one of *Agita Mundo's* leaders in a *Coldeportes'* event in 2002. This meeting, together with the increased visibility of PA (World Health Day in 2002 was titled "Move for Health") (World Health Organization (WHO), 2012), inspired *Coldeportes'* director to join the international call for PA promotion and to commission a group of experts to design a national program.

After Kofi Annan's "Move for Health" [...], numerous actions were initiated globally. There was MP, there was VM, who was a huge force at that time and led several processes. At some point, everyone planted a seed for the movement to grow. [...] After them, other people arrived and took charge and strengthened the movement even more. Then, new leaders arrived, and so on (*HEVS*-coordinator-A).

Locally, *HEVS* is grounded in the work of champions who continuously advocate for it, mobilize resources, plan strategies, and implement activities.

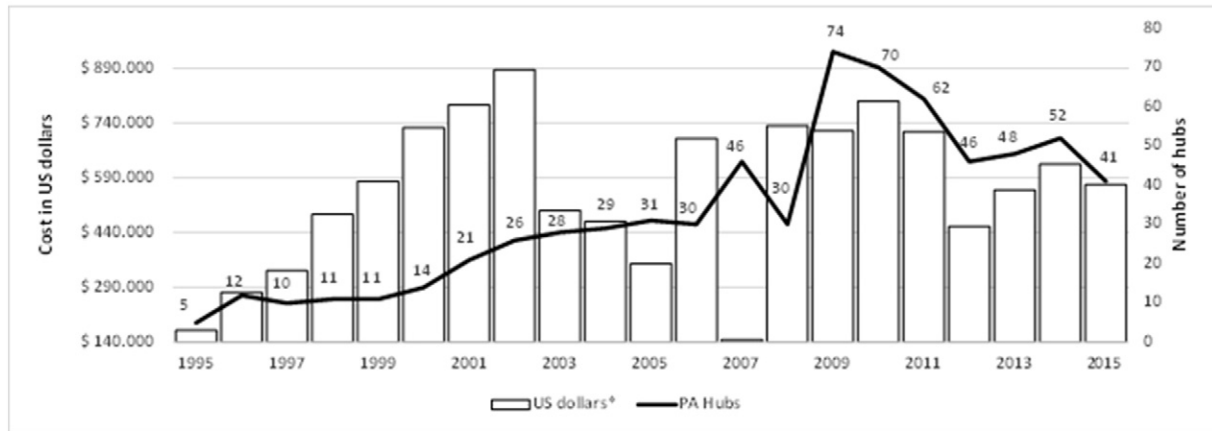
3.2.6. Political legitimization

The design of PA policies coincided with as opposed to preceding program implementation in Colombia. Leaders from REDCOLAF pushed for relevant policy changes that legitimized both programs. In 2008, an inter-sectoral commission for the coordination/promotion/implementation/monitoring of PA was created, joining the Ministries of Health, Education and Culture. Between 2008 and 2009, the national government recognized PA and recreation as priorities in the Sports Ten-Year Plan (Ministerio de Cultura, Instituto Colombiano del Deporte – *Coldeportes*, 2009). By making PA a priority, this plan resulted in organizational changes in *Coldeportes*: The creation of a specific PA unit in 2011 led to a dedicated budget, resources, goals and a capacity to translate policy into action.

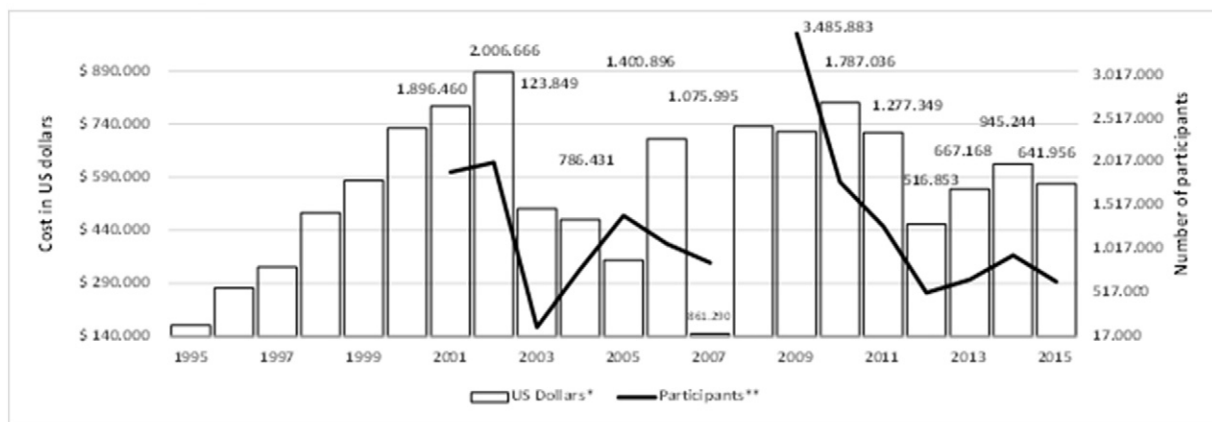
[...] Currently [in *HEVS*] there's a specific area, there's a structure, resources. We didn't have those at that time [2003–2007]. We simply called it support [...] [Currently] this unit has its own coordinator, a team of people who are part of the institution. That's a different thing. There's empowerment, a secure structure. (Coordinator/champion-B)

In 2009, the implementation of PA programs in all departments was included in the Ten-Year National goals (Departamento Nacional de Planeación, Ministerio de Cultura, *Coldeportes*, 2007). Based on this, and on the WHO-Global Strategy on diet, PA and health (World Health Organization (WHO), 2004), *Coldeportes* transformed *Colombia Activa y Saludable* into *HEVS* in 2011. The new program was inspired by the experiences of existing Colombian programs (in Medellín,

A. Deflated Budget vs PA Hubs



B. Deflated Budget vs Participants



* Recreovía program budget from the District Institute of Recreation and Sports (IDRD) equally weighted (dollars per year for the program), deflated by budget in the year 1995 (1 USD = 896 COP).

**Lack of continuity in the line of participants is due to missing information.

Fig. 3. Physical activity hubs and Recreovía participants by deflated budget (inflation adjusted) 1995–2015, Bogotá, Colombia.

Bogotá, Risaralda, Guajira and Huila) and incorporated the promotion of healthy eating and smoke-free environments. It progressively incorporated evidence-based recommendations for PA promotion and behavioral-change models (Departamento Administrativo del Deporte la Recreación la Actividad Física y el Aprovechamiento del Tiempo Libre-Coldeportes, 2014). The dissemination of the 2010 WHO-Global Recommendations on PA (World Health Organization (WHO), 2010) helped support the scaling up of HEVS from irregular events to 1–3 sessions/week.

At the local level, Recreovía and HEVS were legitimized by their inclusion in local development plans or administrative acts. This helped protect them from changes due to administration cycles.

Fig. 4 illustrates each program's main events and the international context described above.

4. Discussion

We presented two programs that have addressed access inequalities to PA by offering people the opportunity to participate in free, regular, and enjoyable classes. Both programs have lasted more than 10 years, scaled-up locally/nationally, and exist in similar forms elsewhere.

The strategies that allowed these programs to survive and grow were part of adaptation processes that responded to changing conditions at different levels. These strategies coincide with the factors

identified in other types of programs from the United States, Canada (Scheirer and Dearing, 2011; Scheirer, 2005; Schell et al., 2013) Israel (Savaya et al., 2008) and one evaluation of Latin American Ciclovías (Sarmiento et al., 2017): flexibility, capacity training, diversification of funding, champions at key upper levels, and community support. Conversely, volunteers, organizational procedures, initial funding adequacy, evaluations, and communication were not relevant in these cases.

This study identified other sustainability and scalability influences, such as the role played by individual actions and small events, improvements to instructors' working conditions, allocation of public funds, requesting local accountability, and the presence of champions at various levels beyond upper management positions. Additionally, we identified the primary challenges to the sustainability and growth of these programs: insufficient participation, the need to adapt classes/instructors to public settings/diverse audiences, limited budgets, the invisibility of PA in public policy, and a limited capacity to translate policy into action.

In contrast to the previous findings on Academia da Saúde (Parra et al., 2013), evaluations were not instrumental in these programs' scaling-up. Local research is only now beginning to play a role in the functioning/visibility of these programs in Colombia. This non-linear process is better described as practice-based research rather than evidence-based practice (Parra et al., 2013; Ogilvie et al., 2009). Recent

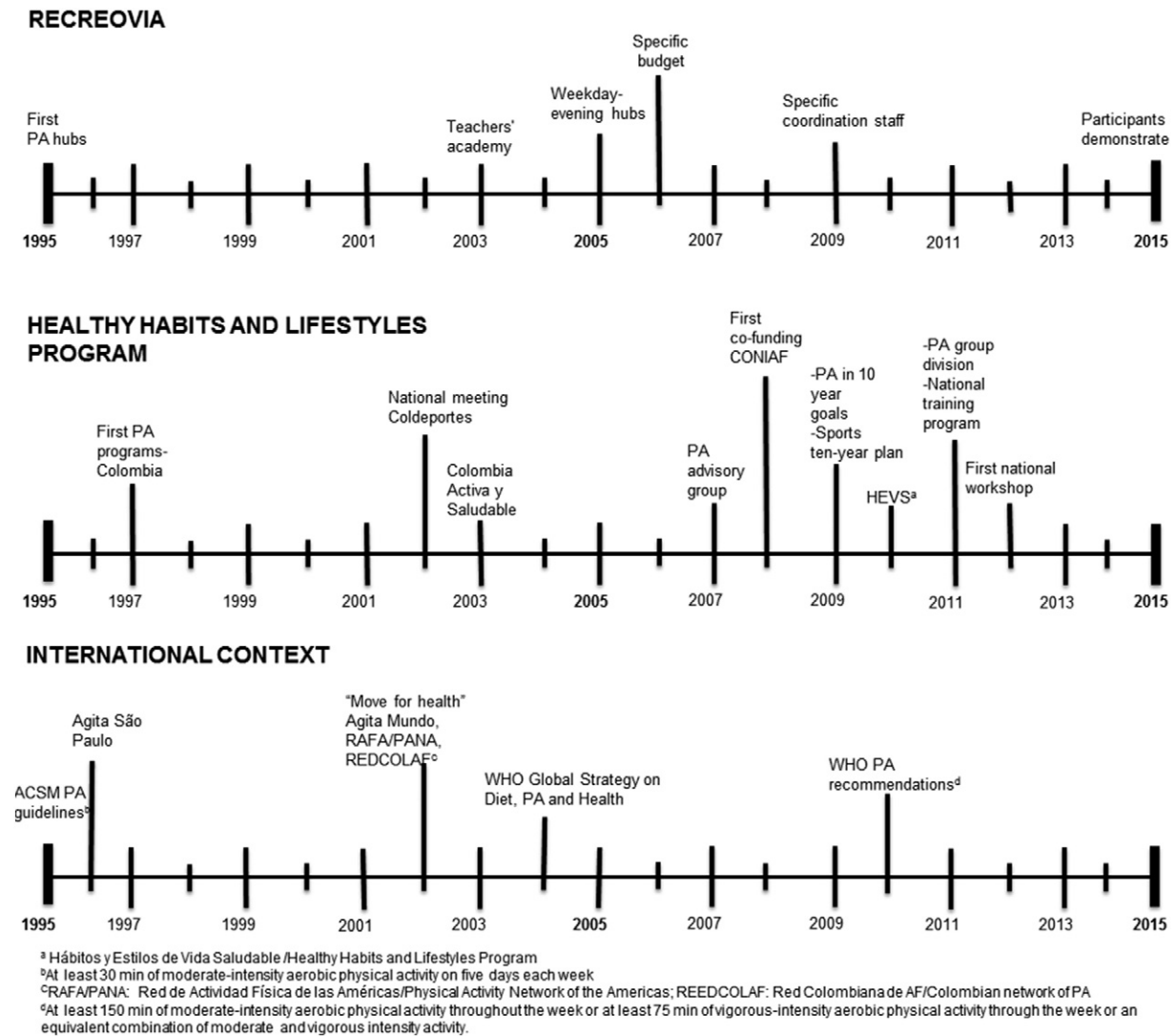


Fig. 4. Timelines of *Recreovia* (Bogotá) and *HEVS* (Colombia).

evidence for *Recreovia*'s effectiveness is in press, while the first studies on *HEVS* are in progress. *Recreovia* started as a "trial-and-error" activity that was part of another program. But, unlike PA classes in other countries (San Diego Prevention Research Center; Alliance for Biking and Walking, Street Plans, 2010; Zieff et al., 2013; The Heritage School et al., 2013), it later transformed into a program in itself with its own resources. *HEVS* built on more than 10 years of experience of local programs. Both programs progressively responded to changing paradigms, such as the shift from EIC (World Health Organization (WHO); Mahecha Matsudo and Matsudo, 2006; Wilcox et al., 2010) to behavioral, social and ecological approaches (Hoehner et al., 2008; Sallis and Owen, 1997; Zaza and Briss, 2005). Changes to international PA recommendations supported the increased number of weekly sessions.

4.1. Limitations and strengths

This paper used a combination of methods that allowed for a comprehensive understanding of both programs. The use of existing frameworks facilitates comparisons. Interviewees were directly involved in the programs and worked at different levels, positions, and points in time. Yet, recall bias might have affected how they recounted past

events/experiences. No data were available on the *HEVS* budget, participants, or hubs before 2014.

This study suggests future areas of inquiry. The interaction among flexibility, champions, diversification of resources, and community support when funding is limited needs to be better understood. Future studies should emphasize the influence of fun and enjoyment as potentially crucial elements in PA interventions.

5. Conclusions

Analyses of these programs yielded information for comparable initiatives. Specifically, the importance of individual actions and small events, a willingness to start small while dreaming big, being flexible, and prioritizing the human factor. These cases exemplify a practice-based research process fueled by flexibility, and support the idea that sustainability is an incremental, multi-level process. Finally, these programs illustrate the potential of public scenarios for addressing social determinants of health and promoting PA, collective enjoyment, and the rights of all in the face of challenges and limited budgets.

Conflict of interest statement

The authors declare that there are no conflicts of interest.

Transparency document

The Transparency document associated with this article can be found, in online version.

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