

Living City: community mobilization to build active transport policies and programs in Santiago, Chile

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Abstract. Although the usefulness of walking and cycling to promote health is increasingly recognized, the importance of civil society leadership in developing new policies and activities is often overlooked. This case study, of Living City (*Ciudad Viva*) a community-based organization in Santiago, Chile, examines how several communities used knowledge about transport's impact on the environment and health, gained through opposition to a major highway project, to build effective sustainable urban transport initiatives.

Inspired by urban reforms in Bogotá, Living City now focuses mainly on “active transport” (formerly non-motorized), building the policies, attitudes and infrastructure necessary to encourage walking and cycling, and the inclusion of the differently abled. It has won two major awards for innovation and now partners with NGOs in The Netherlands and elsewhere in Chile and Latin America.

Moreover, Living City now organizes cycling-inclusive training programs, design charrettes and participatory processes in cooperation with Santiago's regional and national authorities. Its publication, *La Voz de La Chimba*, distributed free throughout the city by volunteers, has helped to open people's eyes to the implications of active transport for social equality and health, and provided support to other citizens' initiatives, struggling to get off the ground.

This experience illustrates how citizens' and community organizations acquire important knowledge and practical experience in learning by doing situations, and how they can learn to reach out to ordinary people and key policymakers, building bridges across the citizen-policy divide to produce innovative, win-win programs that simultaneously bring change at micro- and macro-levels.

Keywords. citizen participation, cycling, health, civil society, planning, community, transport policies, transport program, Chile, urban planning

1 Introduction

Although the usefulness of walking and cycling to promote health is increasingly recognized, the importance of civil society participation – and leadership – in developing new policies and activities is often overlooked.

The World Health Organization notes that globally more than one billion people are overweight, and that “obesity and overweight pose a major risk for chronic diseases, including type 2 diabetes, cardiovascular disease, hypertension and stroke, and certain forms of cancer. The key causes are increased consumption of energy-dense foods high in saturated fats and sugars, and reduced physical activity” (WHO, 2008).

Obesity levels range from under 5% in China, Japan and some African countries, rising as high as 75% in Samoa. Obesity among children and young people in the US has trebled since 1980 and some estimates indicate obesity accounts for 2–6% of total health costs in some developed countries.

These trends go beyond how people eat. Increasingly, researchers, civil society organizations and political leaders are connecting this “obesity epidemic” with the way we build our cities and how we travel.

Books such as *City and Environment* (Boone and Modarres, 2006) or *Urban Sprawl and Public Health* (Frumkin et al., 2004) and articles in such diverse publications as the *American Journal of Public Health* (Cervero and Duncan, 2003), the *Journal of Nutrition Education and Behavior* (Fenton, 2005), *Cities* (Vojnovic, 2006) and the *International Journal of Obesity* (Wen, 2006) trace how people's transportation choices correlate with health and illness.



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“Numerous factors may help to explain the difference in the number of overweight and obese persons in the sprawling suburbs and the number in densely built-up downtowns,” write Boone and Modarres, “but ‘walkability’ is a major one. In a typical sprawling suburb, most residents drive to perform errands, while in densely settled urban cores, people are less likely to travel by car for all trips.” (Boone and Modarres, 2006)

The Active Living Resource Center (US) notes that “The public-health field tells us, and offers evidence to support their claims, that we can do a lot to prevent health problems just by being more physically active. Regular daily activity — what the public-health professionals refer to as ‘active living’ — is the key. The best way for most of us to stay active, they say, is to take a daily walk or bike ride.” (ALRC, 2008)

A report by the English Parliament’s Health Committee concluded that if the Government were able to triple cycling (the target it has set for 2000–2010), it “might achieve more in the fight against obesity than any individual measure we recommend within this report.” House of Commons Health Committee, 2004). Transport for London, meanwhile, reports that by reducing congestion, emissions, traffic accidents and health care costs, *the city would earn from 2.2 to 3.6 pennies in benefits for every penny invested in encouraging bicycle use* (Transport for London, 2004).

Indeed, obesity is not the only consequence of transport systems and cities increasingly focused on cars, rather than people. The World Health Organization calculates that every year, three million people worldwide die prematurely due to air pollution, while another 1.4 billion are forced to live with levels beyond recommended limits. A 1996 study¹ in Austria, Switzerland and France found that 21 000 people die per year as a consequence of PM10-emissions caused by traffic. This is more than twice as many people that have died from road accidents.

In Latin America, 85 million people (of which 28 million are children under 18 years) living in 26 of the region’s cities are exposed to particulate concentrations above international standards. Reducing concentrations to meet standards “could avoid on the order of 10 000 to 13 000 premature deaths (more than 2% of total deaths per annum) as well as a host of illness-related problems.” This would bring “several billion dollars in direct cost savings each year” (Cifuentes, 2007; Cifuentes et al., 2005),

Notes a new handbook from the Sustainable Urban Transport Program (GTZ, Germany):

“Half of all CO₂ emissions in cities come from transport and this sector’s emissions continue to rise, particularly in

¹Health costs due to Road Traffic Related Air-pollution, An impact-assessment project of Austria, France and Switzerland. Prepared for the WHO Ministerial Conference on Environment and Health, London, June 1999. Rita Seethaler, Federal Department of Environment, Transport, Energy and Communications, Bureau for Transport Studies, Bern, June 1999.

developing countries. New technologies may partly relieve this situation, but if car use continues to rise at current rates it will constantly outpace improvements. The best way to reduce green house gas (GHG) emissions is to restrict the growing *use* of motorized vehicles. This can be done by developing more balanced traffic and transport policies, offering more and better alternatives (cycling, public transport, walking) to private car use. Improvements for other modes are essential to reduce private car use, especially in city centres and residential areas.”²

Car-centered cities also impact on mental health. In their groundbreaking studies in San Francisco and other American cities, Appleyard et al. (1981) demonstrated how liveability defined as lack of noise, stress and pollution; higher levels of social interaction; and safety; worsened as traffic increased. They found, moreover, that when traffic rises, families with children are often forced to leave the neighbourhood.

Khayesi (1997) applied Appleyard’s idea of liveable streets in Nairobi, finding that high accident rates among pedestrians reflected the neglect of walkers’ needs within transport planning and practice, while in their review of 24 recent studies, Panter et al. (2008) found children who walked to school tended to be more physically active after school and more likely to meet physical activity guidelines.

In short, motorized traffic affects health adversely by generating noise, vibration, accidents, disrupting community life, and reducing exercise of both users and, where cars prevail on local roads, other road users, particularly walkers and cyclists.

Policy makers and urban activists alike are, therefore, increasingly interested in sustainable urban transport’s potential for achieving multiple goals from affordable investments, which can simultaneously improve people’s access to the city’s benefits (employment, recreation, education, and so on), the quality of public spaces, and public health.

2 Living City: an innovative approach

This case study, of Living City (Ciudad Viva, www.ciudadviva.cl) a community-based organization in Santiago, Chile, examines how several downtown communities have been able to use knowledge gained through opposition to a major highway project, about transport’s impact on the environment and health, to build effective sustainable urban transport initiatives.

Living City’s roots lie in the organization (1990s) of a broad, citizens’ coalition against Santiago’s first major urban highway project. The brainchild of public works minister, Ricardo Lagos, it was intended to be a major plank in the platform that would make him president of Chile. As

²Forthcoming, Cycle-Inclusive Policy Development manuscript, September 2008 draft, Interface for Cycling Expertise and GTA Transport Policy Advisory Services.

a political gesture, it was highly effective, helping to rocket Lagos into power.

Born as the *Coordinadora No a la Costanera Norte*, the anti-highway coalition united communities in three separate municipal areas and from widely diverse backgrounds: low-income *allegados*, renters and homeowners from *Independencia*; flower and other market vendors from the *Vega* (Santiago's main market area); residents and business people from the *Bellavista* arts neighbourhood; and well-to-do professionals living in *Pedro de Valdivia Norte*.

For different motives they joined together to oppose the highway project, delaying its implementation for five years and profoundly changing the final project. It was the first major citizens' movement to arise in the city in post-Pinochet Chile. Born into an atmosphere of extreme distrust and social trauma, the result of the military regime (1973–1990) it nonetheless raised profound questions about transport policies that have gradually changed the way urban planning in this field is carried out.

While running their highly successful oppositional campaign to the highway, Living City's leaders accumulated a vast store of knowledge about sustainability, urban transport, health and equality, thanks to support from respected academics and experts, and mobilization of their own resources.

When, in 2000, the highway campaign was reaching resolution, its leadership voted to stay together, on the condition that they put this knowledge to good use, proposing much-needed improvements to their embattled neighbourhoods.

In 2001, it launched a successful recycling project and in 2002, two of Living City's leaders were able to visit Bogotá and study the new transport system, Transmilenio, and pedestrian and cycle-friendly measures being applied there. In 2003, it teamed up with the World Bank to bring Enrique Peñalosa, the former mayor of Bogotá, to Chile, for a major seminar at the UN's Economic Commission for Latin America and the Caribbean (ECLAC). More than 200 people from non-governmental organizations, municipal governments, universities, neighbourhood and market vendors' associations packed the main hall to listen to national housing and transport ministers, Living City and other civil society representatives, and Peñalosa himself speak about urban transport and its importance to health and social equality.

With support from academics and others, Living City published a book on Santiago's transport system and how it should be changed, which was launched with a cycle ride through downtown Santiago. Speeches were followed by refreshments prepared by leaders from the *Vega Chica* market association, offering working class Chilean foods in a friendly atmosphere reflecting the flower vendors, fruit sellers and other markets, who had organized the event.

In the ensuing years, Living City has moved ahead on several fronts (it has also experienced some major setbacks), producing Chile's first Green Map, which includes routes for cyclists despite the lack of specialized infrastructure. It also worked with the *Macletas*, a women's cyclist group, to de-



Figure 1. Proud graduates of Santiago's first ever Cycling School, in this case for women who had never ridden a bicycle before. Organized by the women's cycling group, *Macleta*, and Living City, 12 women from 17 to over 60 years of age mastered riding a bicycle through 12 weekend sessions in 2008.

velop the first cycling school for women. Its periodical, *La Voz de La Chimba*, which began as a poster-sized "newspaper" during the anti-highway campaign, is now a 16-page, full-colour magazine distributed free throughout the city, but particularly at bus and Metro stops, on cycle paths and sidewalks. Once a year it gets sent to decision-makers in political parties and the media. *La Voz* has helped to open people's eyes to the implications of active transport for social equality and health.

Inspired by urban reforms in Bogotá, Living City has gone to work on what it now defines as "active transport", building the policies, attitudes and infrastructure necessary to encourage more walking and cycling, and the inclusion of the differently abled, within transport planning. It has won two major awards for innovation in citizenship³ and built significant partnerships in Chile and abroad.

In 2007, Living City teamed up with Interface for Cycling Expertise (The Netherlands), to bring state-of-the-art knowledge about cycling-inclusive planning to Chile's metropolitan government and 34 municipal governments, now planning 600 km of new cycle routes for Santiago and its 6 000 000 inhabitants. This has involved major training sessions in both Santiago and the southern city of Concepción, along with the adaptation to Chilean reality of a Dutch design manual, planning and design charrettes to improve bike parking facilities and myriad other activities.

Its Active Transport Centre, created in 2007 with support from I-CE, has a topnotch library on urban transport and

³Both awards, the first for "Recycle to Live Better" (2002) and the second for "Get Moving for a Better City, A Citizens' Proposal for Transport for Equality" (2004), were for Innovation in Citizenship, granted by a consortium composed of the Ford Foundation, the *Fundación para la superación de la pobreza*, and the University of Chile's public policy institute.

Table 1. Results of Civil Society Leadership in Active Transport Planning in Santiago.

Result	Main components	Type	Main partners
Get Moving for Your City: A citizen's proposal for transport for equality (<i>Muévete por tu ciudad: Una propuesta ciudadana de transporte para la equidad</i>)	Volunteer authoring of different chapters	Book (2003)	Individual authors, academics, citizens' groups
Remodelling of Pío Nono 2001–2008	Participatory planning workshops, road closures for pedestrian use, extensive lobbying design and other partnership and support-building efforts.	Infrastructure and management changes	Municipal planning departments (Recoleta and Providencia), Ministry of Housing and Urban Planning
Active Transport Centre	Documentation, books, electronic newsletter, print magazine (20 000 circulation)	Education and commitment building	Neighbourhood associations, academics, others
Manual: Urban Design for Active Transport	Participatory workshop involving representatives of all key stakeholders	E-publication, first four chapters (2009)	Regional Government Santiago, Interface for Cycling Expertise, CUCH
Women's Cycling School	12 sessions, including preparation, June–July 2008	Education	Macletas
Active Transport Annual Training Sessions (2007–2009)	Annual training with top Dutch experts on cycling-inclusive urban design	Technical education and improved infrastructure design	I-CE, GORE, CUCH, others
Santiago Green Map	200-page book, 10 large maps of walking and cycle routes, recycling and other key information	Education and motivation	Natura (Brazil), Green Map.org (US), CUCH
Citizen-Government Roundtable for Cycle-Inclusive Development	Participatory process for planning Santiago's new cycling network; a national cycling law; a cycling-related economy; cycling promotion policies.	National and regional policy development and implementation	CUCH, especially Bicicultura Centre, I-CE, Transport Ministry, GORE

participatory planning. Moreover, Living City works through an extensive series of networks involving other cyclists (*Ciclistas Unidos de Chile*), heritage issues (SIRCHAL), active transport enthusiasts in Latin America and the Caribbean (Sustran LAC), civil society groups (Avina), and social entrepreneurs (Ashoka) to build a constituency for health- and life-giving active transport.⁴

Today, many consider Living City one of the main citizens' organizations in Chile.⁵

⁴In 2007, as part of work on the design manual, Living City opted for leaving behind terms such as “non-motorized transport”, which defines this area in terms of what it is not, and opted for a newer term being used in Canada and Brazil, active transport, which refers to walking, cycling and mobility for the differently abled.

⁵See for example, a recent edition of *Que Pasa*, an ultra-conservative news magazine, in which Iván Poduje, a well-known academic and consultant to real estate developers says (my trans-

3 Results

Today, Living City works closely with fellow civil society organizations in *Ciclistas Unidos de Chile* (CUCH), the metropolitan government of Santiago and some of the cities main municipalities.

lation) “The movement against the Costanera Norte is a landmark in post-dictatorial citizen participation. Its success meant it was quickly imitated by other groups, some to be fashionable, others out of duty.” The journalist goes on to say that “according to a study by Poduje, Living City is today the most important citizens' group in Chile.” E-version, accessed 10 November 2008. María Elena Ducci, architect and urbanist from the Catholic University, followed Living City's career during the early years, reaching a similar conclusion. (López, 2008)

Table 2. The Theory and Practice of Institutional Transformation (DeJong et al., 2002).

Level of action	Formal relations	Informal practices
Constitutional level (ground rules)	Legal systems	Value orientations
Policy area level (relations between governmental bodies)	Formal regulations	Informal codes
Operation level (daily activities)	Procedures	Roles

The results have become apparent in different ways and at different levels (Table 1). The remodelling of Pio Nono (2008), the main street in the Bellavista neighbourhood, which is Living City's centre, involved eliminating a parking lane and extending sidewalks, as well as adding a cycle lane, all measures considered vital for improving the conditions for active transport users. To do so, it had to win the support of two opposition mayors and the national housing ministry, a process that took eight years.

At the Metropolitan Santiago level, officials have stopped talking about segregated cycle ways as the sole measure for encouraging cycling, and have begun to work on more integrated designs for cycle-routes that incorporate cyclists into road use, without forcing them to compete with pedestrians on sidewalks or battle with cars on major roads. While much of this is still at the planning stage, the new designs will begin implementation in 2009 and the government has set aside substantial funding.

In 2008, with its allies in CUCH, *Bicultura*, *CicloRecreovías*, *Macletas* and other groups, Living City worked with the regional government and national transport ministry to design and implement a national participatory planning roundtable.

4 Discussion

This experience of Living City and its allies in *Ciclistas Unidos de Chile* illustrates how citizens' and community organizations acquire important theoretical knowledge and practical experience in learning by doing situations, and how they can learn to apply this in ways that reach out to ordinary people and key policymakers, building bridges across the citizen-policy divide to produce innovative, win-win programs that simultaneously bring change at micro- and macro-levels.

They are not unique in this. Indeed, cyclists', walkers' and civil society organizations are doing this in countries all over the world. The data available varies, but figures from both developed and developing countries, point to a growing percentage of short trips being made by car. These are precisely the distances best served by active transport. Indeed, walking and cycling have a specific role to play in the

network of transportation options available to people living in cities. They are most appropriate for distances of 1–5 km (walking) and 1–10 km (cycling), although some enthusiasts travel much longer distances, daily, by these modes.

When combined with adequate public transport systems, which allow bicycles on buses or trains for example, and encourage people with small children, strollers or packages, these sustainable transport modes are much better positioned to compete with the door-to-door service offered by private cars, at a fraction of the cost and with enormous health benefits.

Indeed, several researchers point out that people are more likely to exercise when this forms part of people's daily commute, rather than an additional activity to be squeezed into an already busy day. This is particularly the case with women, with their double-day of work in the office and in the family sphere, and their tendency to chain trips to different destinations.

As Living City's experience suggests, there are some very good reasons why it is important to engage citizens on a very deep, integral level in order to achieve the substantial paradigm shifts required for them to choose healthier and more sustainable transport modes.

One is that, as Table 2 suggests, when attempting profound institutional changes, it tends to be easier to modify behaviour first at the informal level, particularly roles and informal codes, then more formal policy levels. In most countries and contexts, achieving change at the legal and particularly the constitutional level is extremely difficult, making it wise to start by influencing informal practices (column 3) and operative rather than higher levels (row 3). Living City's work has initially focused on these spheres, and to some degree procedures, accumulating political and public support and quality proposals sufficient to start to move into institutionalizing these changing values, codes and roles, through more formal legal systems and regulations.

The results of the working group on urban design to include active transport, for example, will be used not only by planners and engineers, but also will form the basis for citizen (and many officials') participation in the review of the formal regulatory system governing road design in Chile, which is enshrined in a national law (general principles) and regulation (specific application rules).

Moreover, quality participatory methods of the kind classified at the top of Arnstein's ladder (see Fig. 2) in the informal and formal spheres contribute to strengthening democracy. They also provide room for conflicts to reach fruitful conclusions. At the bottom of the ladder are non-participatory approaches involving manipulation or therapy, which offer participants a chance to complain or talk about what concerns them, but no connection to actual decision-making structures. Their real objective is not to enable people to participate in planning or conducting programs, but to enable powerholders to "educate" or "cure" the participants.

A little higher up on the ladder, Rungs 3 and 4, information, consultation and placation, offer tokenistic participation that goes through some of the motions involved in genuine participation, again without associating it in any way to policy development processes. When they are proffered by powerholders as the total extent of participation, citizens may indeed hear and be heard. But under these conditions they lack the power to ensure that their views will be heeded by the powerful. When participation is restricted to these levels, there is no follow-through, no "muscle", hence no assurance of changing the status quo. Typically, prior to this work by Living City and Ciclistas Unidos de Chile, participatory events in Chile consisted of a large, one-off meeting where authorities presented their view of a problem and its solution and then left the room to attend other business, leaving citizens to deliberate amongst themselves, with no further connection to the whole policy-making cycle.

There was no on-going role for citizens to participate in informal or formal policy development processes. Similarly, Rung (5) Placation is simply a higher level tokenism because the ground rules allow have-nots to advise, but retain for the powerholders the continued right to decide.

Further up the ladder are levels of citizen power with increasing degrees of decision-making clout. Citizens can enter into a (6) Partnership that enables them to negotiate and engage in trade-offs with traditional power holders. At the topmost rungs, (7) Delegated Power and (8) Citizen Control, have-not citizens obtain the majority of decision-making seats, or full managerial power.

In the case of Living City's campaigns, these have always been driven by democratically-controlled citizens' organizations. Relations with authorities, whether municipal, regional or national, are based on horizontal relationships between autonomous organizations. Meetings tend to take place in Living City's own Centre for Citizen-led Planning, and are chaired by citizen representatives. In the case of the national roundtable on cycling-inclusive policies, the process was co-designed by Living City/CUCH and regional and national transport authorities. Each session is co-chaired by a citizens' representative and a government representative, and the results of the meetings are processed by the citizens' organization. While this puts an enormous burden on citizens' limited resources, it also gives civil society groups genuine power over content, process and results. Thus, there is at the

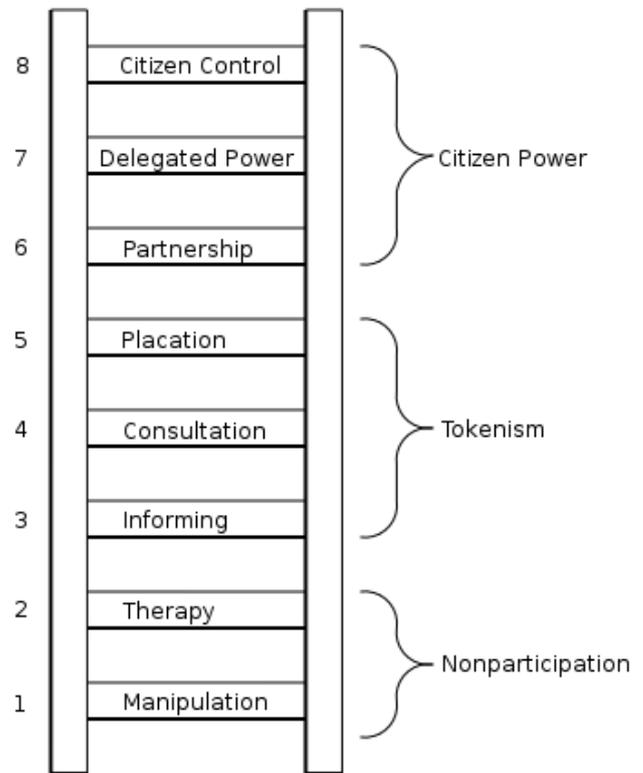


Figure 2. Arnstein's Ladder of Participation (Arnstein, 1969).

very least partnership between citizens' groups and government officials, often delegated power, and in many instances, genuine citizen control.

Obviously, the eight-rung ladder is a simplification, but it helps to illustrate the point that so many have missed - that there are significant gradations of citizen participation. Knowing these gradations makes it possible to cut through the hyperbole to understand the increasingly strident demands for participation from the have-nots as well as the gamut of confusing responses from the powerholders.

Participation such as that led by Living City channels conflicts into productive results, and builds active citizenship. Moreover, it taps into community knowledge and resources, creating Evans' "ecologies of actors" (Evans, 2002).

These are networks in which "each type of actor - communities, intermediary organizations, and state agencies - has a complementary contribution to make to the fight for liveability. The capacity of each depends on its internal coherence as well as the aggregated experience and ability of its individual members, but the power of each to effect change also depends fundamentally on its relations to the others" (Evans, 2002). It is also directly related to what Patsy Healey refers to as "generating strategic conviction," which "leads to an interest among many stakeholders in the design of institutional processes which will facilitate collaboration, mutual learning and consensus-building" (Healey, 2006).

The knowledge and trust that develops within these processes is crucial to sustainability. Like road safety rules, the law provides an important foundation, but millions of individuals, convinced that the law is beneficial, can enforce it far more effectively than hundreds of police officers. Healey calls this “strategic conviction” and notes that “knowledge and understanding are produced through collaborative social learning processes, not by the manipulation of abstract techniques by autonomous individuals” (Healy, 2006).

She emphasizes the importance of paying attention to local knowledge, which “has its own reasoning processes, in which conclusions are drawn from premises, but the line of reasoning may not be made explicit and one group’s premises may be quite different to another” (Healy, 2006). One size does not fit all: different communities must come to terms with measures to build healthier, more sustainable, people-centred transport systems in their own way.

Finally, there are two additional benefits to involving citizens – as leaders and protagonists rather than passive recipients – of health promotion campaigns, particularly when they are, or should be, embedded in something as complex and immediate as neighbourhoods.

The first is the strength that arises from combining *campaigns*, which of necessity have a finite duration, with the ongoing capacity of permanent citizens’ organization to persist, insist, pressure and demand politicians and civil servants keep their promises.

The second is the horizontal relationships they build. When politicians, civil servants or “experts” try to tell people what’s good for them and how they should behave, a hierarchical and authoritarian dynamic results, which many will resist. When a neighbour, a friend or a colleague starts chatting about the new bike school or how it felt to cycle to work for the first time, there’s more room for genuine interest and complicity – and “dumb” questions when someone is intrigued, but fearful.

In developing countries, these dynamics tend to be even more delicately sprung than in developed ones. Working to build funding and solid, long-standing partnerships with grassroots community and other organizations can add crucial strength, credibility and commitment to efforts to build new healthier habits among people living in cities north and south.

For the future, Living City will continue to build on current projects. It also plans, resources permitting, to work to place green roofs, sustainable energy sources, community garden and other components on citizens’ and politicians’ agendas, in its efforts to create more sustainable, socially just and happier cities.

5 Conclusions

As this case study from Santiago (Chile) illustrates, building permanent citizens’ organizations to participate in campaigns and other ongoing initiatives favouring sustainable urban transport can substantially influence public policies and build public support for healthier, more sustainable transport options – and cities.

Even when the initial catalyst for citizen organization is a conflict, such as an urban highway project, given financial and technical support from appropriate sources, the learning-by-doing experiences that result can build active citizenship and necessary skills, in short, a constituency for change that will continue to pressure and build new attitudes and infrastructure, long after the original conflict has resolved itself.

Quality participation is essential to change people’s attitudes in a lasting way. Local groups and communities must take new ideas, chew them over and *make them their own* before the long-term health benefits these measures promise can actually be realized.

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