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Car free days: A literature review

1 Background

The concept of closing city streets to motorised traffic and opening it up to pedestrians and cyclists first gained popularity in the Colombian city of Bogotá when the municipal government developed an initiative that would become known as the Sunday "Ciclovía". The scheme started with the temporary closure of 3.8km of road space for one day in 1974; today 121 km of the road network is closed to motorised vehicles between the hours of 7am to 2pm every Sunday and on holidays.¹

The success of Bogotá has inspired US cities such as New York and San Francisco to create similar programs and as of early 2012 there are more than 70 known initiatives in North America.² In Europe car free Sundays emerged in Switzerland as a response to the oil crisis of the 1970s³ and while they continue to this day they are perhaps less prevalent in Europe as a whole because forward thinking municipal governments, particularly those in the Netherlands, Denmark and Germany, worked to pedestrianise central shopping streets and traffic calm residential areas when the problems

¹ Pardo, C. (2013) Bogotá's non-motorised transport policy 1998-2012: the challenge of being an example. In: Gronau, W., Fischer, W/, Pressl, R. (Ed.) Aspects of Active Travel: How to encourage people to walk or cycle in urban areas [online] available from: <u>http://nia1.me/2cf</u>

² Street Plans (2012) The Open Streets Guide [online] available from: <u>http://nia1.me/2cp</u>

³ Federal Ministry for Economic Co-operation and Development (2005) Car-free development [online] available from: <u>http://nia1.me/2cv</u>

associated with motorised traffic became apparent.⁴ The result of this is that in many cities the circulation of motorised vehicles is severely restricted, to the extent that the bicycle is often the fastest, most convenient and consequently the most popular modal choice.

Examples of car free days do exist however. For example, the city-centre of Lubeck in Northern Germany has been car-free every Saturday and Sunday since June 1996 when the city centre was closed for 'non-qualified' individual motor traffic – in this case the term 'car-free' does not mean absolutely no cars; residents, delivery vehicles and hotel guests continue to get access.⁵ This results in 40% to 80% less cars (depending on the time of day) in the city centre at weekends.⁶

Car free Sundays are a much more recent phenomenon in the United Kingdom (UK) and are seen as an effective intervention to increase recreational and physical activity levels and promote active and sustainable travel; as recently as December 2014 London Mayor Boris Johnson suggested that car-free Sundays could be introduced in central London after being "blown away" by the experience in Jakarta, Indonesia.⁷

This paper reviews the literature around car free days with a particular focus on evaluation studies that have presented data on the impacts, both positive and negative, on host cities.

2 Ciclovias

Ciclovías (literal translation: bikeway) are *"city streets that are closed to motorised traffic for a few hours a day, usually on Sundays and holidays, to allow the free and safe circulation of people on bicycle, roller-skate or foot, for recreation and socialisation."⁶ By restricting motorised traffic large recreational spaces are created where physical, cultural and educational activities can take place. Municipal governments which have introduced a ciclovía generally do so as they are considered an effective and efficient way to promote public health, local economic development and social cohesion.⁹*

2.1 The Ciclovía-Recreativa: A Mass-Recreational Program with Public Health Potential

Sarmientio, et al. (2010) sought to explore the public health benefits of ciclovías in a study conducted in 2008. This study included a systematic literature review in which

⁴ Topp, H. and Pharoah, T. (1994) Car-Free City Centres. Transportation journal, Vol 21 (3) [online] available from: <u>http://nia1.me/2cz</u>

⁵ Ibid.

⁶ Ibid.

⁷ London Evening Standard [online] Boris Johnson considering car-free Sundays in central London. Available from: <u>http://nia1.me/2cr</u>

⁸ Demchak, T. (2013) Open Streets for Houston: A Step to Meeting the Public's Increasing Desire for More Walkable

Communities. Cite: The Architecture + Design Review of Houston [online] available from: http://nia1.me/2cs

⁹ Ciclovias Recreativas de las Amercas [online] Ciclovias. Available from: <u>http://nia1.me/2ck</u>

the authors could find no published evaluation studies relating to ciclovías. This review was then complemented by expert interviews and consultation.¹⁰

Although each location has unique circumstances that influence the ciclovía in terms of design, policies, advocacy, and viability, this study did find a number of commonalities and has reported the general characteristics of ciclovías in the Americas (33 ciclovías across 11 countries):

- Most ciclovías (84.2%) take place in urban settings;
- Most existing programmes receive public financing, except for the Ciclorecreovía program in Santiago, Chile, which mostly uses private funds;
- Despite being publically financed they depend on inter-sectoral partnerships for development and sustainability;
- There is generally low opposition and high community support for ciclovías;
- They range from 18 (1 per month + holidays) 64 (1 per week + holidays) events per year, lasting for between 2 and 12 hours;
- The length of the streets allocated ranges from 1–121 km;
- the estimated number of participants per event ranges from 60 -1,000,000+ persons;
- The direct costs of setting up and running the programmes ranges from \$45,000 to \$2,072,896 US dollars with the cost per participant ranging from \$0.01 to \$64.80;

The study also examined the potential benefits of ciclovía, it suggests that:

- In well-developed programs, such as Bogotá, with high (at least once weekly) frequency and high participation levels, ciclovías do make a substantial contribution to meeting overall population requirements for weekly **physical activity**;
- Ciclovías promote social well-being by encouraging community mobilisation, recreation and leisure physical activity, they connect people with the outdoors and empower people to be active in their community e.g. through volunteering;
- Ciclovías could, again depending on scale and participation, help to reduce environmental pollution; and
- Ciclovías provide employment, with more than half of the cases they examined reporting a growth in temporary businesses built up around the event although a small percentage (16%) of local businesses did report a reduction in business as a direct result of ciclovías.¹¹

¹⁰ Sarmiento, O., Torres, A., Jacoby, E., Pratt, M., Schmid, T.L. and Stierling, G. (2010) The Ciclovía-Recreativa: A Mass-Recreational Program with Public Health Potential. *Journal of Physical Activity and Health*, vol. 7(2), pp. 163-180 [online] available from: <u>http://nia1.me/2co</u>

¹¹ Sarmiento, O., Torres, A., Jacoby, E., Pratt, M., Schmid, T.L. and Stierling, G. (2010) The Ciclovía-Recreativa: A Mass-Recreational Program with Public Health Potential. *Journal of Physical Activity and Health*, vol. 7(2), pp. 163-180 [online] available from: <u>http://nia1.me/2co</u>

2.2 Case Study 1: The Ciclovía Recreativa of Bogotá

The Ciclovía Recreativa of Bogotá, began in 1974 and is known as the "Ciclovía." This is considered the pioneer in the Americas and has inspired similar programmes in many other cities. Although development began as far back as 1974, it was not until 1982 that Mayor Augusto Ramirez implemented Bogota's first official weekly "ciclovía" where certain roads were closed to motorised vehicles (on Sundays). The event has grown and evolved since its inception, to the extent that 121 km of roadway are now used by up to two million cyclists, joggers, skaters, and families.¹² In addition to ciclovía Sunday, Bogotá is also credited with holding the world's largest car-free weekday event, covering the entire expanse of the city's 28,153 hectares.¹³ The first car-free day was held in February 2000 and it is now an annual event, as voted for by citizens in a public referendum on 29 October 2000.¹⁴

2.2.1 Organisation

Bogotá's Ciclovía is currently managed by the city's Institute of Sports and Recreation (IDRD, Spanish acronym for "Instituto Distrital de Recreación y Deporte"). However, the organisation of the event includes participation from across the public sector including education, environment, health, security, sports, culture and recreation, transport, and urban planning. The Ciclovía programme is mainly funded by the municipal government with additional revenue generated through private sponsorship.

2.2.2 Development

Bogotá's Ciclovía enjoyed its most rapid growth during the 1990s when Mayor Enrique Peñalosa decided that Bogotá would become a city for the people.¹⁵ The ciclovía is central to the city's transport policy which included overturning a decision to build a \$15 billion highway in favour of the creation of over 350km of protected "ciclorutas," bike lanes completely separated from traffic; and other sustainable transport interventions including a new Bus Rapid Transit (BRT) system, Transmilenio. Mayor Peñalosa advocated the idea that cities should be designed for people, not for cars.¹⁶

This recent reimagining of the city's transport policy enabled Bogotá to apply international best practice and develop a transport system that would be the envy of many cities. In particular, special emphasis was placed ensuring that the cycle network took people where they needed to go and part of this was ensuring it connected to the city's new BRT. As part of this integration, the municipal government installed free, convenient and secure cycle storage facilities near all major bus terminals.¹⁷

¹² Wright, L. and Montezuma, R. (2004) Reclaiming public space: The economic, environmental, and social impacts of Bogotá's transformation. Conference Proceedings: Walk21, Copenhagen, 9 - 11 June, 2004 [online] available from: <u>http://nia1.me/2cl</u>
¹³ Ibid.

¹⁴ Ibid.

¹⁵ Project for Public Spaces [online] Enrique Peñalosa. Available from: <u>http://nia1.me/2dc</u>

¹⁶ Maus, J. (2014) Guest essay: A Portland perspective on Bogotá's ciclovía [online] available from: <u>http://nia1.me/2cu</u>

¹⁷ O'Hare, M [online] Cities for People: Bogota – a good cycling city? Available from: <u>http://nia1.me/2cx</u>

Highlighting the city's achievements, Loyd Wright of University College London states that:

"Bogotá represents one of the best examples of a city that has developed a package of complementary measures to substantially reduce vehicle emissions and congestion. Bogotá's implementation of a high-quality bus rapid transit (BRT) system, bicycle infrastructure, pedestrian improvements, car-free events, and auto restriction measures all has contributed to an urban transformation in a period of just a few years."¹⁸

2.2.3 Social, Environmental and Economic Impacts

A study by Torres (2011) concluded that the ciclovía is an important environmental and health promotion intervention that has had a positive impact on environmental and health-related behaviour – effectively it promotes walking and cycling which reduce the negatives of motorised traffic such as poor air quality, congestion and noise whilst enhancing the health of participants.¹⁹ Torres also found that regular participants in the ciclovía perceived a higher level of Ciclovía-based social capital i.e. the ciclovía has established a sense of community and ownership in a city where there is a tangible class divide and low perceptions of personal safety which discourage people from different areas and social classes mixing.²⁰

An economic analysis of four separate ciclovía events including Bogota, as well as Medellin (Columbia), Guadalajara (Mexico) and San Francisco (USA) was carried out by Montes, et al (2012).²¹ This study included a cost benefit analysis in which savings on direct medical costs were measured against every dollar invested in the Ciclovía programme. Where the cost benefit ratio (CBR) is lower than one, the investment in the programme is higher than the benefit obtained, otherwise, the program is cost beneficial. From a transport perspective, the UK Department for Transport's "Value for Money" guidance says a project will generally be regarded as "medium" if the CBR is between 1.5 and 2; and "high" if it is above 2.²²

- For Bogotá's ciclovía the CBR ranged from 3.23 to 4;
- the total annual costs ranged from US \$4,057,651 to US \$7,182,797 (because participant numbers ranged from 516,600 to 1,205,635 in 2009).
- The annual cost per capita of the programmes was US \$6.0;

¹⁸ Wright, L. (2004) The limits of technology: Achieving transport efficiency in developing nations [online] available from: <u>http://nia1.me/2cy</u>

¹⁹ Torres, A (2012) The Bogota ciclovia-recreativa and cicloruta programs: Promising interventions to promote physical activity and social capital in the city of Bogota in Colombia.

²⁰ Ibid.

 ²¹ Montes, F. Sarmiento, O.L., Zarama, R., Pratt, M., Wang, G., Jacoby, E. Scmid, T.L., Ramos, M., Ruiz, O., Vargas, O., Michel, G., Zieff, S.G., Valdivia, J.A., Cavill, N. and Kahlmeier, S. (2012) Do Health Benefits Outweigh the Costs of Mass Recreational Programs? An Economic Analysis of Four Ciclovía Programs. *Journal of Urban Health*. Vol. 89(1) pp. 153–170.
 ²² DfT [online] Value for Money Assessments. Available from: <u>http://nia1.me/2dd</u>

- The savings in direct medical costs ranged from US \$3.2 to US \$4.3 for every dollar invested in the Ciclovía programme; and
- Because men participated approximately three times more often than women, the cost–benefit ratio for men ranged from 2.12 to 2.80 versus 1.11 to 1.46 for women.

Wright (2004) attempted to capture employment impacts from Bogotá's ciclovía which it was concluded stem from two main categories:

- 1. Municipal staff managing the ciclovía; and
- 2. Vendors working along the ciclovía.

A typical Sunday involves approximately 1,900 volunteers, whose ages range from 15 to 17 years. These young people are completing a national social service activity that is required prior to graduation from secondary school. In total, the volunteers oversee traffic control on more than 500 key intersections. Table one provides a summary of the type and number of vendors along the "ciclovía". Wright presents data from a 2004 survey that counted a total of 1,517 kiosks along the ciclovía, employing a total of 2,033 people (1.34 employees per kiosk). The average income per vendor during a single "ciclovía" was 34,482 Colombian pesos (US\$ 12.31).²³

Vendor Activity	Per cent of total vendors
Food and/or beverages	73.6%
Bicycle repair only	9.4%
Bicycle accessories/repair	6.8%
Consumer goods	4.3%
Antiques	3.4%
Other	2.6%

Source: Wright et al. (2004)

2.3 Case Study 2: San Francisco's Sunday Streets

San Francisco's Sunday Streets programme was inspired by the Ciclovía Recreativa of Bogotá.²⁴ However, it is by no means a carbon copy of this event and it is relatively new by comparison. Sunday Streets began in 2008 when two events were held, six events were held in 2009 and the number of events increased to nine in 2010; in 2014 nine events ran with the first in March and the last in October.

Each monthly location is different giving participants the opportunity to experience different parts of city free from traffic, including: the waterfront area (Embarcadero); the normally congested Mission area of the city as well as the great highway that runs through Golden Gate Park. The circuits in each location vary in length from 7.3 to

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 ²³ Wright, L. and Montezuma, R. (2004) Reclaiming public space: The economic, environmental, and social impacts of Bogotá's transformation. Conference Proceedings: Walk21, Copenhagen, 9 - 11 June, 2004 [online] available from: http://nia1.me/2de
 ²⁴ SFMTA (2014) PRESS RELEASE: SFMTA Announces Sunday Streets 2014 Season [online] available from: http://nia1.me/2d8

9.7 km²⁵ with each featuring hundreds of healthy, family-oriented activities and cultural performances.²⁶

2.3.1 Programme goals

The Sunday Streets programme aims "...to create sustainable, liveable communities and healthy, active populations by providing open, public space for safe, car-free recreation that promotes physical activity and social interaction".²⁷ The street closures are the central platform by which the Sunday Streets programme hopes to accomplish its four main goals:

- 1. **Provide open space for safe, car-free recreation.** Through collaboration between city and county agencies, permits are obtained for each event, and traffic is rerouted and monitored, among other activities. The San Francisco Bicycle Coalition, a local longstanding bicycle advocacy organisation manages the training, coordinating, and deploying of volunteers to staff each event.
- Increase physical activity and other healthy lifestyle behaviours. Once a route is chosen, Sunday Streets staff works with community liaisons, local merchants, non-profit organisations, and residents to promote the event to the neighbourhood residents and to engage the community in planning culturally appropriate activities during the event.
- 3. Serve as a model for other open space initiatives. The Sunday Streets programme staff use the events as a platform to play an active role in advocating for policy changes at the city, county, and state level that both provide for long-term sustainability for Sunday Streets and facilitate the creation of more public, open car-free space beyond the Sunday Streets events.
- 4. Strengthen networks within and between communities. Routes are selected to encourage and facilitate movement and interaction within and between communities. Sunday Streets events offer the forum for community members to come together to plan, execute, and participate in the events and in the process, learn more about each other, what their communities have to offer, and to build stronger connections among themselves.²⁸

2.3.2 Organisation

Sunday Streets is organised by the San Francisco Municipal Transportation Agency and Liveable City, a non-profit partner responsible for the day-to-day management of the programme. Additional support from city agencies is provided by the Mayor's office, The Department of Public Works, Department of Public Health, Recreation &

²⁵ Sunday Streets San Francisco [online] 2014 Sunday Streets. Available from: <u>http://nia1.me/2d3</u>

²⁶ Sunday Streets San Francisco (2014) 2014 Sunday Streets Sponsorship Proposal [online] available from: <u>http://nia1.me/2d5</u>

²⁷ (CDC) Centre for Disease control (2011) Active Transportation Spotlight: San Francisco Sunday Streets [online] available from: <u>http://nia1.me/2d4</u>

²⁸ (CDC) Centre for Disease control (2011) Active Transportation Spotlight: San Francisco Sunday Streets [online] available from: <u>http://nia1.me/2d7</u>

Parks Department, San Francisco Environment, the Port of San Francisco and San Francisco Police Department, Office of Economic and Workforce Development and the Small Business Commission.

This cooperation between city departments, government agencies and local non-profits is a key feature of the organisation and implementation of the Sunday streets programme. These arrangements were formalised in 2009, when a memorandum of understanding was developed between the relevant city departments. This had the effect of reducing uncertainty about delivery of (in-kind) services such as staffing and resources.²⁹

The San Francisco Municipal Transportation Agency (SFMTA) is the main sponsor of Sunday streets. However, each of the city departments involved do provide both financial resources and staff who support the organisation and implementation of the programme.³⁰ This public funding is then supplemented by contributions from a number of private sponsors from the national and local business community. They include, inter alia, AT&T (Telecommunications Company), Bank of America (Bank and Financial Corporation), Partnership for a Healthier America, San Francisco Federal Credit Union and the University of California San Francisco (UCSF).

Sunday Streets has two full-time paid staff members; a project director and a programme assistant. There is also a logistics team (responsible for route planning, event schedules, permits, traffic safety, detours, public safety tasks) made up of representatives from the various department's mentioned and a volunteer programme coordinator.

The volunteer coordinator is responsible for recruiting and training more than 600 volunteers who are needed for public safety and event support; 100–150 volunteers are required at each event. In addition to this there are four volunteer programme interns whose job it is to supervise the other volunteers on-site. Volunteers receive a Sunday Streets T-shirt and lunch voucher for their time.

2.3.2 Evaluation studies

Zieff and Chaudhuri (2013) have conducted an economic impact assessment of San Francisco's Sunday Streets programme; this research was funded by the San Francisco Municipal Transportation Agency.³¹ This study found that the main reason for attending is the opportunity to socialise in a safe, fun environment created by temporarily removing cars from the streets whilst the attraction of free activities that

²⁹ Zieff, S.G., Hipp, A., Eyler, A. Kim, M. (2013) Ciclovia Initiatives: Engaging Communities, Partners, and Policy Makers Along the Route to Success Journal of Public Health Management Practice, vol. 19(3) pp. 74–S82 [online] available from: <u>http://nia1.me/2da</u>

³⁰ Ibid.

³¹ Zieff, S.G. and Chaudhuri, A. (2013) Sunday Streets SF: An Economic Impact Assessment [online] available from: <u>http://nia1.me/2df</u>

take place along each of the routes was the next main reason for attending. Despite the attraction of free activities there is however a very positive economic impact:

- Small Business Owners support Sunday Streets because increased foot/bike brings in new customers who shop and dine along Sunday Streets routes, spending an average of \$36 per person per event;
- 44% of businesses reported an increase in customer activity and sales during Sunday Streets;
- The net increase in average revenue on a Sunday Streets Sunday compared to a non-Sunday Streets Sunday was \$466;
- For every dollar spent during Sunday Streets, a total output of \$9.32 was generated;
- Almost one in five businesses (18%) reported hiring or scheduling additional employees to work on Sunday Streets Sundays;
- There was a total of 70 extra employees hired or scheduled just for Sunday Streets along the routes that were surveyed;
- For every dollar spent, there is an additional \$4.76 generated in total labour income;
- Fewer than 20% of businesses reported some form of engagement with Sunday Streets; However,
- Of businesses that were involved, almost 2/3 reported an increase in revenue;
- Restaurants reported a decrease in walk-in customers (possibly due to temporary food stands), while gift and clothing shops and services showed an increase;
- Indirect benefits include the effects of increased awareness of businesses available in each neighbourhood that encourages customer activity outside of the Sunday Streets programme.

The economic analysis conducted by Montes, et al $(2012)^{32}$ found that the total annual projected costs are US \$1,763,368, this equates to \$70.5 per capita. This study was concerned with the savings in direct medical costs and found that US \$2.3 was saved for every dollar invested in the programme.

2.4 Case Study 3: Make Sundays Special (Bristol)

Bristol is the first UK city to institute regular car free Sundays affecting a substantial area of the city centre.³³

Make Sunday Special (MSS) is an initiative launched by Bristol City Council in 2013 and driven by the mayoral vision to create a *"vibrant Bristol* [...] *city centre accessible and inspiring to all"*. Bristol's mayor, George Ferguson said at the time the idea behind

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 ³² Montes, F. Sarmiento, O.L., Zarama, R., Pratt, M., Wang, G., Jacoby, E. Scmid, T.L., Ramos, M., Ruiz, O., Vargas, O., Michel, G., Zieff, S.G., Valdivia, J.A., Cavill, N. and Kahlmeier, S. (2012) Do Health Benefits Outweigh the Costs of Mass Recreational Programs? An Economic Analysis of Four Ciclovía Programs. *Journal of Urban Health.* Vol. 89(1) pp. 153–170.
 ³³ Green Bristol Blog [online] Car Free Sundays. [online] available from: http://nia1.me/2ci

the scheme was not about "*closing roads but opening them to people*" and said he hoped to see "*entrepreneurial activity*".³⁴

The scheme involved closing a number of streets to motorised traffic on one Sunday per month in between June and October 2013. On these days the local businesses, community groups, activity leaders, artists and street performers were invited to participate through performance or by selling arts and crafts goods, food and other items of interest.

Bristol City Council acknowledged Bordeaux (France) and Bogotá as the main inspirations for the scheme but emphasise it was delivered with a very special Bristol flavour. The anticipated cost publicised at the launch of the 2013 season was $\pounds 200,000$. However, with savings made throughout the development and implementation of its first summer season the cost of delivering five events came in at $\pounds 102,516.73$. Bristol City Council planned to reduce the costs even further and the budget for the 2014 season is circa $\pounds 50,000$.³⁵

2.4.1 Evaluation

A structured feedback and evaluation process was built into the approach of the 2013 initiative with face-to-face surveys conducted during the MSS days and an online survey which captured responses from both those who did and didn't attend the events. The report highlights that 83% of respondents thought MSS should continue and provides feedback from participants, businesses and attendees.³⁶

- Over two thirds of local business, who responded to Bristol City Council's survey (n=41), got involved either directly or indirectly with the Make Sunday Special programme;
- 73% of them reported that the ambience of the event supported their business by:
 - Increasing footfall (75%)
 - Increasing sales (68%)
 - Raising the profile of their business (86%)
- High percentages of both online (79%) respondents and those who responded to an on-street survey (98%) indicated they would recommend the event to a friend;
- The most popular activities enjoyed by participants were performance-based (music, street entertainers etc.) while 71% of respondents bought food and drink and 34% bought other items;
- The average spend of respondents was £10.26 per head this largely went on food and drink;
- 83% wanted the event to continue, with:

³⁴ BBC News [online] Car-free Sundays in Bristol to start in June. Published: 23 April 2013. Available from: <u>http://nia1.me/2dh</u>
³⁵ Bristol City Council (2014) Make Sunday Special – citizen feedback informing the development for 2014. [online] available from: <u>http://nia1.me/2dg</u>

³⁶ Bristol City Council (2014) Evaluation report for Make Sunday Special [online] available from: http://nia1.me/2di

- 35% in favour of five times per year
- 32% in favour of it taking place every month

Of those who didn't attend/participate in MSS:

- 17% were concerned about traffic disruption;
- 14% felt it was a good/great idea;
- 12% felt it was a waste of money and
- 9% would like to use green/open spaces.

2.4.2 Other UK examples

The only other example from GB was that of a car free Sunday held by Lambeth Council (London). This day was held on a stretch of road around Loughborough Junction in Brixton on 21st September 2014 and like Bristol it included a number of street activities. One of the reasons this particular area was selected is there are future plans to reduce the traffic flow through Loughborough Junction. This first attempt at a car free day was therefore designed to allow the council to get local feedback on the idea of traffic restrictions in the borough, outside of the more official consultation process which often garners few responses.

3 Closing roads for events in Northern Ireland

The Department for Regional Development (DRD) has no statutory powers to close roads for events, other than motor cycle or bicycle <u>races</u> for which it can enact provisions made in the Road Races (Northern Ireland) Order 1986 or the Road Traffic Regulation (Northern Ireland) Order 1997, respectively.

The closure of roads for the purpose of holding any other type of event (for example the Belfast marathon), is currently facilitated by the Police Service of Northern Ireland (PSNI) under Article 32 of the Road Traffic Regulation (NI) Order 1997. This legislation was amended through the Roads (Miscellaneous Provisions) Act (NI) 2010 in order to give local councils (with the consent of the DRD) the power to close roads for sporting, social or entertainment events and for the purposes of location filming. However, having contacted Belfast City Council in order to identify some examples of when these new powers may have been used I have been advised that although guidelines have been drawn up and agreed, the part of the legislation which bestows the power to close roads on Councils has yet to be commenced, at the request of the Minister for Regional Development.

4 Summary and conclusions

Car free days are extremely popular in the Americas and since the 1990s the number of events has increased significantly, particularly in the USA, where growth continues year-on-year. There are a number of drivers behind this type of programme, be they environmental, social, or economic; indeed the member has indicated his belief that a scheme of this nature in Belfast would be *"beneficial to health, encourage biking, promote cross-community relations, and it would be good for local tourism and associated traders".*

This study has presented three case studies which are at various stages of development. Bogotá is seen by many as the pioneer of car free days and indeed most cities use this example as their benchmark and attempt to combine the closure of roads with a recreation/cultural event that is attractive to all citizens (not only cyclists) as well as visitors to these particular cities.

The case of Bogotá has been particularly successful in achieving social change bringing together people from the city's marginal neighbourhoods and the city's social elite who did not previously mix. The ciclovia is a key part of a wider drive to reduce motorised traffic in the city and this programme along with the development of a highly successful BRT system and the provision of extensive bicycle infrastructure for 'everyday' cycling has helped to realise this goal. This collection of measures has helped to transform the city's attitude from one of negativity and fear to one of civic pride and co-operation.

If an event of this type could have the same type of restorative effect in the city of Belfast, particularly in view of recent divisions, then it can only be viewed as a good thing. However, from the evidence base that exists it is difficult to say if the ciclovia, without the added capital investment (for buses, bike lanes and public realm improvements), would have had the same impact.

As well as promoting social cohesion the literature is clear that car free events have a tangible impact on public health by encouraging people to engage in physical activity, whether it is walking, cycling or skating around a car free course or participating in the complimentary events (e.g. aerobics) which are offered. The studies reviewed in this paper suggest that savings accrued through health benefits alone are enough to justify the staging of such events.

The wider economic impact of these events has also been examined and there is clear evidence that they have a positive impact on both existing businesses and local entrepreneurs who establish businesses specifically for the event. In the San Francisco case study, for example, 44% of businesses reported an increase in customer activity and sales during Sunday Streets, increasing their income on that day by \$466. Similarly positive results were also experienced in Bristol where 75% of businesses reported that the event supported their business by increasing footfall. Both Bristol and San Francisco businesses also reported increased awareness of their business due to

car free Sundays which could have a more long term and sustained impact on their businesses.

There were, however, a small but significant number of businesses who reported a drop in customers/revenue. This can be explained by the increased competition offered by temporary vendors. However, it is reasonable to assume that the impact of this could be mitigated if the event was staged away from large concentrations of restaurants/retailers or if they were encouraged to participate themselves. The fact that many shops and restaurants are closed in Belfast until 1PM on Sundays may also serve to minimise any negative impacts on local businesses but these issues would have to be discussed with the business community itself.

Overall these types of events appear to be particularly popular with participants but in general local businesses are also largely supportive. Those who have reservations may be appeased by proper consultation when this type of programme is being developed. The transient nature of the San Francisco programme is an interesting approach as it has the potential to spread both the pain and the gain of this event to around the city, raising awareness of what these parts have to offer and also keeping participants interested by bringing them to parts of the city they may not visit otherwise. It would be fair to assume that a period of time would have to pass before the example of Bogotá, where the entire city is closed to traffic every week, could be followed. However, the approach of having a limited number of events per year to garner citizen reaction would seem achievable.

Launching an event of this type in Belfast would require co-operation from a number of stakeholders including the DRD, as the roads authority, Belfast City Council whose events team would have to develop any proposals and the PSNI who retain the powers needed to close roads for events. It would also be important to engage with stakeholders from the business, voluntary and community sectors whose involvement would be essential in terms of organisation, planning and implementation.

The member may wish, at this stage, to consider writing to the Regional Development Minister:

- For an update on the progress in commencing provisions within the Roads (Miscellaneous Provisions) Act (NI) 2010 that would enable local councils (with the consent of the DRD) the power to close roads for sporting, social or entertainment events and for the purposes of location filming; and/or
- To outline what current procedures are in place that would enable local councils to request the closure of roads or the restriction of motorised vehicles on certain roads to facilitate their use by the community for the purposes of walking, cycling etc.