

# School Streets to shape child-friendly cities

A brief review of evidence showing improved safety, air quality, active travel and community wellbeing from interventions in Europe and around the world



**BYCS**

CleanCities



This briefing was prepared by BYCS in collaboration with the Clean Cities Campaign within the framework of the Streets For Kids schools initiative.

Authors: Lucas Snaije, Research & Advocacy Manager, BYCS; Daniela Abril Gutierrez, Global Networks Intern, BYCS  
Reviewer: Jens Müller, Policy & Research Lead, Clean Cities Campaign  
Design: Doug Dawson, [www.dougdawson.co.uk](http://www.dougdawson.co.uk)  
Illustrations: Francesca Murgia

© Text 2022, BYCS / Clean Cities Campaign  
(hosted by Transport & Environment)

Cover image by Ivan Put for Filter Café Filtré

## Acknowledgements

BYCS would like to express their gratitude to the Clean Cities Campaign for their support and collaboration in the publication of this report. BYCS also thanks 8 80 Cities and Qendra Marrëdhënie for their willingness to share their knowledge and experiences. BYCS and the Clean Cities Campaign are responsible for the content and the views expressed in this document.

# Executive Summary

A School Street is a road closure strategy to restrict motorised traffic, where walking and cycling zones are created in front of schools, at least during drop-off and pick-up times. School Streets are emerging as a low-cost, simple intervention to reduce vehicle usage, pollution, improve safety, as well as encourage walking and cycling in an effort to enhance community health and increased comfort among children, and their families. Their rapid adoption, mainly across European cities, can be linked to the need for safe social distancing near schools during the COVID-19 pandemic, but also as a response to crises of road safety, health, and air quality, the growing child-friendly cities movement, as well

as the acceptance of experimental or ephemeral approaches, such as tactical urbanism, open streets, slow streets and play streets<sup>1</sup>.

The rise of School Streets can also be attributed to their affordability, simplicity of concept, ease of implementation, and successfully captured positive impacts and learnings from past interventions that provide encouragement for replication. Evaluation and monitoring of existing initiatives show measurable, positive impacts in most cases, and demonstrate that School Streets can contribute real solutions to some of our most pressing urban challenges.

## Key figures:

**School drop-offs represent a significant share of motorised traffic:** Transport for London estimated in 2018 that 25% of weekday morning peak car trips are for school drop-offs, a total of 254,000 trips a day.

**Both parents and children support school streets:** In a UNICEF survey in France, 87% of respondents were in favour of the implementation of a School Street around their child's school, with 59% convinced due to safety issues (safer surroundings) and nearly 40% also convinced by the argument of less pollution. In Toronto, 100% of children surveyed said they preferred their school street car-free, with 77% believing that the street was unsafe before the pilot, and only 3% during the intervention.

**Reduction in car travel:** A TfL study supported by FIA foundation noted an 18% reduction of car travel to school in London as a result of interventions.

**Air quality:** near to schools in Brent, Enfield and Lambeth an impressive 23% reduction in nitrogen dioxide (NO<sub>2</sub>) pollution was found. NO<sub>2</sub> levels in the Flemish Region of Belgium were reduced by 20%.

**Active travel:** Since the implementation of School Streets within Waltham Forest, there has been a 20% increase in pupils travelling actively at Willow Brook Primary School and a 10% at St Joseph's Catholic Infant School. According to Hackney Council's official information, since the program was launched, the proportion of children cycling to participating schools has increased by over 50%.



# Introduction



A School Street is a road closure strategy to restrict motorised traffic where walking and cycling zones are created in front of schools, at least during drop-off and pick-up times. First implemented in Bolzano, Italy, in 1989, and later embraced in Belgium, Austria, and the Netherlands in the early 2000s, School Streets are now widely emerging as a low cost, simple intervention to reduce vehicle usage, pollution, improve safety, and encourage walking and cycling in an effort to enhance community health and increased comfort among children and their families. A significant factor for the rise of School Streets across Europe was the need to support socially distanced travel to schools in response to COVID-19, however the compounding crises of road safety, health, and air quality have encouraged cities to embrace this tactical urbanism strategy as a solution in their toolkits to make cities more human-centric. The growing child friendly cities movement, as well as the acceptance of experimental or ephemeral approaches, such as tactical urbanism, open streets, slow streets and play streets, have also contributed to the recent rapid adoption of School Streets around the world<sup>2</sup>.

These traffic restrictions are usually enforced with road signs and temporary bollards, allowing some exemptions for emergency vehicles or authorised residents. School Streets often start as a pilot project to test and measure their short-term impact. From pop-up school streets, they often then move to a longer interim stage, with the final goal of being made permanent. This pilot-format allows nearby residents, parents, and surrounding communities to provide feedback in a collaborative manner, in order to adapt longer-term changes to local needs.

School Streets are a response to a pressing need to make our cities more child-friendly. Children constitute a vulnerable group that is particularly exposed to harmful effects of air pollutants, due to their short height, developing lungs and brains, and higher rate of respiration. For example, three-year-olds breathe in twice as much air as adults

per unit body weight, and play closer to the ground – where air pollution is often more concentrated<sup>3</sup>. Road safety is also of critical concern, with 1.35 million people around the world being killed on roads each year, and road traffic injury the leading cause of death for children and young adults aged 5–29 years<sup>4</sup>. Sedentarisation is another challenge that is of great concern. 81% of adolescents aged 11–17 years globally are insufficiently physically active according to WHO global recommendations on physical activity for health<sup>5</sup>, and children spend on average less than half the time playing outside than their parents did<sup>6</sup>, which indicates a need to promote widespread tactics to promote healthier neighbourhoods, active travel, and safe play spaces. School Streets are emerging as a strategy to reduce the volume of motor vehicle traffic on roads close to and in front of schools to tackle congestion and air pollution, as well as increase the number of children using active travel modes on their way to school by making it easier, more accessible, safer, and fun.

This brief has structured the positive impacts and benefits demonstrated in the evaluation of pilot initiatives within 5 categories that align with several existing urban challenges. It is important to note that due to the relatively emergent nature of School Streets as a child-friendly urban strategy, both academic papers and grey literature are sparse, and predominantly concentrated around UK initiatives. There is a need to support the development of methodologies to contextually scale School Streets initiatives, as well as expand both the piloting and evaluation of School Streets beyond European and North American countries in order to assess transferability of similar initiatives in other regions. Lastly, while definitions of School Streets have been relatively strict in terms of opening and closing times, there are possibilities for loosening these definitions and including approaches to city planning that focus on upgrading streets and zones near schools with road safety, air quality, family wellbeing, and active travel at their core.

# The Benefits of School Streets

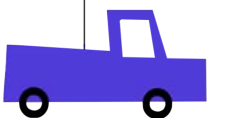


Photo: Ivan Put for Filter Café Filtré

Strategies to restrict motorised traffic around school areas have both direct and indirect positive impacts. Many of these impacts and benefits are also interwoven and connected, together forming the blueprint for healthier, safer, more joyful and inclusive cities. For the purposes of clarity, evidence of School Street intervention benefits have been grouped in the following categories: traffic reduction and safety improvements, air quality improvement, modal shift towards active travel, positive community perceptions, and finally creating spaces for public joy, wellbeing, and healthier communities.

## Traffic reduction and safety improvements:

A large percentage of car trips, especially for school commutes, are for distances that are walkable or cyclable. School street initiatives are effective tools to curb private car use for short trips, as they provide an alternative for parents and children to walk or cycle safely. Over 30% of car journeys in Europe cover distances of less than 3 km; 50% cover less than 5 km.<sup>7</sup> In London for example, a third of all car trips could be cycled in less than 10 minutes or walked in under 25 minutes<sup>8</sup>. Transport for London also estimated in 2018 that 25% of weekday morning peak car trips are for school drop-offs, a total of 254,000 trips a day.<sup>9</sup>





This period also coincides with the highest rate of serious casualties under 16 years of age due to road traffic collisions<sup>10</sup>. In the USA, nearly 60% of all car trips have been found to be less than 9km<sup>11</sup>, and studies have shown that 68% percent of students reach school by car, with consequences on physical activity, road safety, and school performance<sup>12</sup>.

In France, a recent study (2020) commissioned by UNICEF about School Streets and commuting to school found that among 536 parents surveyed, 70% use the car at least from time to time to accompany their child to school or nursery school and 47% even indicate that it is the mode of transport they use most often, even though only 8% live further than 5km away from their school<sup>13</sup>. Following School Street interventions and the pandemic, parents said they had reduced car travel and intended to continue doing so. 87% of respondents were in favour of the implementation of a school street around their child's school, with 59% convinced due to safety issues (safer surroundings) and nearly 40% also convinced by the argument of less pollution<sup>14</sup>.

Moreover, in the UK, the effects of School Streets on private vehicle usage is clear. A Transport for London study supported by FIA foundation analysed the impact of 35 School Streets on the modal habits of parents and carers in London, and noted an 18% reduction of car travel to school as a result of interventions.<sup>15</sup> The evaluation of a pilot project reaching 9 primary schools in Edinburgh in 2015-2016 found evidence of lower vehicle speeds on School Streets and peripheral streets surveyed, as

well as an overall reduction in net vehicle volumes on the streets surrounding the pilot schools during restriction times<sup>16</sup>.

A literature review from Edinburgh Napier University that explored the results of 16 studies of school street projects also found that in almost all cases, the total number of motor vehicles across school street closures and neighbouring streets was reduced. They additionally found consistent evidence that motor traffic displacement did not cause road safety issues of any significance and that mitigating measures, where needed, were applied successfully by local authorities<sup>17</sup>.

### Air quality improvement

School Streets have been demonstrated across several urban contexts as a practical and achievable measure to reduce children's exposure to toxic air pollution, which is of great concern in cities worldwide.

As part of London's actions on clean air, School Streets have been included on the portfolio of interventions to support walking and cycling, which further have the potential to reduce emissions and considerably improve air quality for everyone<sup>18</sup>. Research conducted for the city that involved the installation of 30 AQMesh air quality sensors near to schools in Brent, Enfield and Lambeth found that School Streets led to an impressive 23% reduction in nitrogen dioxide (NO2) pollution<sup>19</sup>.

Furthermore, a report commissioned by Possible and Mums for Lungs has recently highlighted that if all feasible schools in London, Birmingham, Leeds and Bristol had School Streets implemented, peak hour car trips in those cities would be reduced in total by between 11 and 32 million trips a year, reducing emissions of air pollutants (NOx) by around 23,000 to 64,000 kg a year, and emissions of greenhouse gases (CO2e) by around 4,000 to 12,000 tonnes per year<sup>20</sup>.

In the evaluation of the 2015-2016 Edinburgh pilot, vehicle volume data enabled an analysis of air quality, specifically NOx levels (Nitrogen Oxides - an indicator for Nitrogen Dioxide, an irritant gas produced in areas of motor traffic). The analysis showed NOx levels reduced by 1631 g/km (grams per kilometre) on streets surrounding schools<sup>21</sup>.

In addition, air quality data collected in the first temporary road closure outside a school in the London Borough of Camden, showed a considerable improvement in the NO2 levels right outside the school with a reduction of 3.8% on school days, while driven trips decreased by 43%<sup>22</sup>.

Finally, in Belgium, the city of Ghent included in their Mobility Plan 2030<sup>23</sup> the implementation of School Streets as part of the strategies aiming to reduce congestion and air pollution as well as to ensure safe trips to schools. The concept of School Streets is popular in the Flemish region, as since 2018 it has had its own article of law and its own traffic sign<sup>24</sup>. An evaluation report published in 2019 showed significant improvements in road safety and air quality, as the average NO2 concentrations fell by 20%<sup>25</sup>.

### Modal shift towards active travel

The importance of physical activity for children is key to a healthy and happy life. Walking or cycling

to school is considered an easy way of building more physical activity in children, that can also boost energy, as well as reduce stress and anxiety. Furthermore, physical activity is positively related to academic performance, alertness and concentration in lessons<sup>26</sup>. Pedestrian representative and initiator of the School Streets in Vienna, Petra Jens, described the School Street initiative not only as an answer to the traffic chaos in front of elementary schools, but also to the increasing lack of exercise among children.<sup>27</sup>

The UK based NGO Sustrans has noted for example that teachers find that pupils who cycle or walk to school, arrive more alert and ready to start the day, compared to those who travelled by car<sup>28</sup>. These effects are also well documented in academia. The Child Health Initiative report on London's air pollution "Every Child's Right to Breathe" supported by FIA Foundation, has also expressed a generational impact of active travel at a young age, as children who walk and cycle are more likely to become adults who do the same<sup>29</sup>.

Over  
**30%**  
of car journeys in Europe  
cover distances of less  
than 3 km; 50% cover  
less than 5 km.



Photo: Sergio Gatto

Findings from the literature review conducted by Edinburgh Napier University showed strong evidence that active travel was constantly described as a one of the key purposes of School Street Closures (SSCs) among the 16 included studies. The study also revealed evidence that active travel levels increased in almost all School Streets reported on by local authorities<sup>30</sup>.

Waltham Forest is another example that demonstrates the effects of School Streets on active Travel. The Council has introduced 15 Schools Streets so far with 64 roads included in School Street zones across Waltham Forest and over 12,000 pupils benefiting. Since the implementation of School Streets within the Waltham Forest, School Street Marsh Lane which incorporated two schools in September 2019 have seen a 20% increase in pupils travelling actively at Willow Brook Primary School and 10% at St Joseph's Catholic Infant School<sup>31</sup>

These rapid results are also seen in School Street interventions in non-European contexts. During a pop up School Street on Toronto's Mountview Avenue, evaluation reports showed a clear effect of the pilot changing student travel behaviour. Data collected by 8 80 Cities reflected that in just the few days of the pop-up, car travel decreased by 20.5%, and active travel increased by 5.4%<sup>32</sup>. A pilot study conducted between January 2019 and April 2019 in a primary school in New Delhi with around 50 4th grade students, revealed that over half of the children wanted to change their mode of transportation. The main reasons stated were: independence, comfort,

safety and quality time with parents<sup>33</sup> with closure of street spaces to motor traffic cited as a way to comfortably pivot towards more active modes.

### Positive community perception

School Street initiatives have received overwhelmingly positive support from parents, children, school teachers and the broader community in the high majority of cases.

In UNICEF's France survey, parents were highly supportive of the interventions, with 87% of parents (regardless of the age or level of education of their children) indicating that they are in favour of the principle of a School Street around their child's nursery or school, including 47% who said they were very much in favour<sup>34</sup>. In the city of Paris, many of the 150 "Rues aux Ecoles" (School Streets) implemented have been made into permanent, pedestrian-only zones where trees and seating have been added, and this initiative has received strong support from local communities.

The Schulstrasse Vereinsgasse in Vienna is another example of how a School Street pilot was well received by the local community. According to the Mobility Agency of Vienna, the parents association unanimously welcomed the School Street trial in Vereinsgasse elementary school back in 2018, where a 30-minute driving ban was established as motorised traffic represented a major risk for pupils<sup>35</sup>.

As part of London's strategy on School Streets, a study was developed in 2020 to measure the perception of parents and caregivers in 35 schools. The results showed that 81% of parents and carers supported the measures at their children's school and believed that School Streets were suitable measures for their children. 77% of parents and carers at these participating schools agree with measures remaining in place in the long term. The research also showed that 18% of parents reported driving to school less as a result of School Streets. Finally, the study found that parents want the community to be engaged and be part of consultations if School Streets measures will remain permanently. Testimonies collected from this same study reflected how families and school staff like the additional sense of school community that this strategy brings, especially in a time when the COVID-19 pandemic has restricted community engagement<sup>36</sup>.

Such strong support was also echoed in a study of 10 School Street pilots in Edinburgh, where parents, teachers and local residents were asked questions about aspects of road safety through pre and post perception surveys. Parents strongly agreed that the streets surrounding the school gates felt safer after the scheme was implemented and they perceived improved safety for children, and residents did not believe that the scheme would make their life more difficult<sup>37</sup>.

In Toronto, 100% of children surveyed during Mountview Avenue School Street pilot initiative said they preferred their School Street car-free, with 77% believing that the street was unsafe before the pilot, and only 3% during the intervention<sup>38</sup>. Such strong community acceptance and support for this program helps advocating for scaling School Streets and eventually making them permanent fixtures of our cities.

### Creating spaces for public joy, wellbeing & healthier communities

School Streets also increase wellbeing by bringing together families and the broader community in reclaimed urban space. A recent report published by Cross River Partnership and the Active Travel Academy has noted that while School Streets have been mainly discussed in terms of improvements to air quality, road danger, and active travel, reclaiming the street can provide space for parents and carers

to socialise more easily and for children to play at pick-up and drop-off times<sup>39</sup>. As highlighted by the Albanian NGO Qendra Marrëdhënie (QM / Relationship Centre), School Streets inject safe play space into the neighbourhood, in line with the concept of "Play Along the Way", which turns the playground inside out and affords children the freedoms they need to thrive<sup>40</sup>. This is especially relevant in the context of decreasing outdoor play among children.

Academics have also recently called for greater attention to be paid not only to streets as places for active travel and mobility, but also as spaces of dwelling, playing and connecting, which is especially vital for the health and wellbeing of children, their families and local communities<sup>41</sup>.

Experts from the USA NGO KaBOOM! have highlighted that it is critical to find innovative ways to transform cities' infrastructure to address behavioural and environmental barriers, in order to make daily play an easier choice<sup>42</sup>. A critical element for this to succeed is to develop play installations near existing hubs where children gravitate, meaning that School Streets have the potential to become oases of play and interaction among children. New Delhi's pilot study on reimagining School Streets with children from 4th grade, showed that 78% of the children involved in the program identified a radius of 250m around the school as safe and fun, after closing the street for motorised traffic. Their perception of safety went beyond the current school frontage, as they identified benefits not only for their school but also for the surrounding community<sup>43</sup>.

Finally, programming elements often accompany School Streets, and such activities taking place in open spaces have been highlighted by ITDP to have the ability to build civic and social infrastructure as well as provide opportunities for positive interactions between babies, toddlers, and those who care for them, as well as among the caregivers themselves<sup>44</sup>. While harder to measure, the injection of public joy that School Streets can temporarily create has been similarly noted as a key benefit of open street events around the world, and help build the case for streets that cater to people instead of cars.

The results showed that

81%

of parents and carers supported the measures at their children's school and believed that School Streets were suitable measures for their children.







# Cases Studies

A number of initiatives from around the world reveal diverse approaches to School Streets implementation, yet strikingly all show rapid impact and meaningful community participation. A closer look at several of them can help envision how School Streets initiatives are being developed, implemented, and scaled.

Photo: Sergio Gatto

## HACKNEY, LONDON

Hackney's School Streets Programme in London is one of the leading School Streets programs in the world. Their pilot project began in 2017 with five schools, and as of 2021 they have made all five pilot projects permanent, as well as installed another 40 School Streets across the whole borough<sup>45</sup>. With strong and widespread support from the local authority and the community, their programme benefits and encourages over 15,000 students to safely walk and cycle to school. According to Hackney Council's official information, since the program was launched, the proportion of children cycling to participating schools has increased by over 50%, and traffic outside schools has decreased by around two-thirds effectively improving air quality at school opening and closing times<sup>46</sup>.

Thanks to their success, Hackney Council has developed a toolkit for professionals to assist transportation practitioners and interested communities with developing a School Street in their city. The practical guide is based on the experiences of professionals, teachers, pupils,

parents and the wider community that was involved in the programme.

Besides providing support for budget allocation, political support and publicity strategies, Hackney's toolkit provides a "Myth Busting" section, to tackle ideas that cast doubt on School Streets. Hackney's Council hopes that their experience captured in this toolkit will provide useful insight to other authorities and organisations that seek to implement School Streets in their communities.

*"School Streets in Hackney go so much further than simply banning idling outside schools - they make the streets places for everyone, tackle poor air quality and tackle the obesity crisis by making it easier for kids to walk or cycle to school"*<sup>47</sup>. - Cllr Feryal Demirci, Deputy Mayor and Cabinet Member for Health, Social Care, Transport and Parks

For more information on Hackney's School Street Programme see [Toolkit for Professionals 2021 Edition](#).



With strong and widespread support from the local authority and the community, their programme benefits and encourages over

# 15,000

students to safely walk and cycle to school.



## THE HAGUE, THE NETHERLANDS



Photo: Dutch Cycling Embassy

Although the Netherlands is well known for its cycling culture, car use has also increased in recent years, leading to increased congestion and lower perceptions of safety among families. School Streets initiatives have become increasingly important for Dutch cities as a response to this. The local government in The Hague has notably been taking various measures to tackle traffic-related air pollution and road safety, such as low-emission zones<sup>48</sup> and school zones<sup>49</sup>. In 2019, the city organised its first School Street trial, and in only one year they succeeded in implementing 15 more, largely due to the need to provide more space for distancing during the COVID-19 pandemic<sup>50</sup>, and the presence of a political champion for road safety, Alderman for Mobility Robert van Asten.

Following a number of safety reports by parents from Montessori Elementary School Valkenbos, especially during rush hours, Abeelstraat was selected as the location of the first School Street pilot project in the city that lasted for two consecutive weeks. The pilot included traffic controllers that “sealed off” the street to motorised traffic during opening and closing hours. Abeelstraat School Street was reported as very safe amongst teachers, parents and pupils, and the initial trial provided interesting learning experiences on how to apply the School Street concept in The Hague, especially those related to traffic displacement.

A second, longer trial was initiated shortly after on Oeverwallan street, in the suburban district of Ypenburg. Due to lockdown, this pilot had to be cut short, however the Department of Mobility investigated during this time all 189 elementary schools in the city and their surroundings to evaluate how many schools could be part of the next phase of the programme.

Finally, 15 School Street trials were organised to close the roads to motorised traffic during school rush hour in September 2019. During evaluation, parents, teachers and pupils expressed their satisfaction with the measures taken to provide more space and safety. According to the Dutch Cycling Institute, some of the participating Schools asked for the measures to become permanent. Ronald Woudstra expressed that learnings from the School Street initiative were being registered at a record-breaking speed, and the next steps for the programme are related to establishing structured and permanent funding.

*“Only when you take the car out of the street do people truly feel safe when they are walking or cycling to school. In such a situation, more people will make the decision to walk or cycle to school instead of driving.” - Ronald Woudstra, former Director of Traffic Safety Capital Program in The Hague.*

[Read more on the Dutch Cycling Embassy Blog.](#)

## TIRANA, ALBANIA



Photo: Qendra Marrëdhënie

In Tirana, a successful pilot initiative led by Qendra Marrëdhënie (QM / Relationship Center) in 2020, within the NACTO-GDCI's “Streets for Kids” program, has led to the development of Gjon Buzuku Play Street, a playground and safe mobility zone with an emphasis on walkability for young children and their caregivers built in collaboration with the school and neighbourhood community. QM also hosts “Festa N' Rrugë”, pop-up street parties hosted periodically with the Municipality of Tirana, that open up streets to take the public beyond imagining and into direct experience of a better version of it<sup>51</sup>. Through this implementation approach, the experience of Tirana can reveal the benefits of moving from pop-up, to interim stages, to finally reach a capital construction street change.

With the learnings of their first pop-ups and interim initiatives, QM is working with the city, who approved expanding the pilot to 10 new School Streets, to develop a methodology to systematise and scale these initiatives into a full School Streets program. To evaluate and monitor initiatives, 10 indicators were initially defined for tracking:

- ▶ % ground shade increase,
- ▶ Noise levels at drop-off pick-up,
- ▶ PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub> levels,
- ▶ Number of strollers,
- ▶ % asphalt area reduction,
- ▶ Average traffic speed,
- ▶ Seating in view of 0-3 play areas,
- ▶ Number of cyclists,
- ▶ Survey preferred travel mode and survey project approval.



The School Streets expansion has a two step process, and follows a methodology that is shaped in a way that works for the local context. The first action taken is to bring the street into safety standard – which is done quickly with a simple construction notification posted a few weeks in advance. Then begins a process of workshoping and co-creation with members of the community only once this “blank canvas” of safe space is installed. This merges the technical capacity of city engineers with more participatory approaches to shape and elaborate the

character of the street by those who live and work there. Co-creation invites collective imagination about the potentials of a street, and then ushers them into reality. Through this highly experiential aspect of the methodology, tangible discussions about what can be done for the community in this space is enabled, that can then be backfilled so that it belongs to the neighbourhood. How or what to paint, where to add benches, trees, or play areas can be commonly decided on site<sup>52</sup>.



Photo: Qendra Marrëdhënie

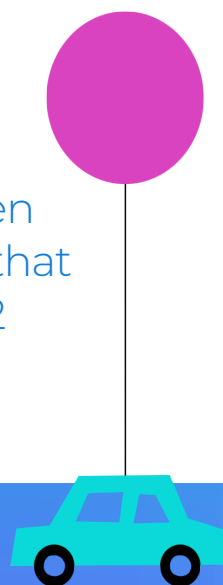
From the initial list of 10 indicators, 5 have been narrowed down and a baseline for 11 schools that will have pilots implemented before July 2022 have been collected. Target schools and control schools will also be evaluated.

*“The pop-ups are so effective. They are very cheap, and the impact is huge, especially in regards to the purpose of changing people’s minds. In just 4 hours at the pop-up street party people saw it and said ‘we want more of these’. Communicating what you are after through experience is so much more*

*effective than explaining it to each other, because it is direct and it is non-verbal. There’s something very powerfully cross-generational about moving away from a reliance on discussion to come to decisions about public space. And it gets away from the unpleasantness of messaging to the public about how unsafe and scary the public realm is, and just says hey actually look how much fun this would be.”*  
- Simon Battisti, Director, Qendra Marrëdhënie<sup>53</sup>

[More about the work of Qendra Marrëdhënie.](#)

From the initial list of 10 indicators, 5 have been narrowed down and a baseline for 11 schools that will have pilots implemented before July 2022 have been collected.



## TORONTO, CANADA



Photo: 8 80 Cities.

As part of a series of demonstration projects in 2019, Toronto based NGO 8 80 Cities began to conduct “temporary street makeovers”. One of these projects was developed on Mountview Avenue as a School Street pilot project. The objective of the organisation was to demonstrate to residents that safer street design creates more enjoyable and dynamic streets for all, and show the local authority that safer design elements can be quickly installed, at low cost, and with community support.

Mountview Avenue was chosen as the first School Street pilot in Toronto because of several important factors such as existing community concerns about safety, a small catchment area in a relatively walkable neighbourhood, a culture of active travel promotion among students and teachers, and the presence of a political champion, City Councillor Gord Perks, who was critical in making the project possible<sup>54</sup>.

During 4 days in October 2019, the pop-up demonstration of the School Street created a temporary car-free environment on Mountview Avenue during Keele Street Public School opening and closure times. Their implementation included high student leadership, as well as community volunteers to help implement the road closures by setting up the barriers and acting as road marshalls. Finally, a simple signage strategy was implemented, alongside wooden barriers from open-source ‘Wikiblocks’ designs, easy to assemble without nails or screws.

Among the many lessons learned, the pop-up strategy for Mountview Avenue delivered two key findings<sup>55</sup>: School Streets change student and family travel behaviour, with 20.5% decrease in car travel, and 5.4% increase in active travel modal share during the pop-up. Several parents expressed their perception of school distance changed, as well as the idea of allowing their children to walk to school independently if Mountview Avenue had a longer-term School Streets program.

According to the 8 80 Cities report, communities want longer-term programs that prioritise children’s safety and that offer more time to make community-led improvements. Hosting a short pop-up was also a way of showing residents how joyful children were, which in a car-centric environment can be a way to mitigate potential backlash of taking away space from cars.

8 80 Cities are now supporting 3 cities in the rollout of a longer School Streets program, set to launch in May 2022 after a year of planning and community engagement, which was a critical piece of the preparation and acceptance of the programs.

*“School Streets have a huge role to play in shaping more joyful cities. It should be our aspiration that public spaces and streets be playful spaces. It is not enough to go from point A-B walking or cycling, the placemaking aspect is so crucial to how that street or space is perceived in the community’s mind.”* Jiya Benni, Project Manager, 8 80 Cities<sup>56</sup>

[Access the 8 80 Streets Mountview Summary Report.](#)



# Conclusions



School Streets initiatives have had demonstrable impact across a range of initiatives around the world, and are emerging as a new urban approach that could support healthier, safer, more sustainable and joyful cities for children, their families, as well as for the broader population.

Their simplicity, low cost, rapid implementation, high acceptance, and proven effects indicates that transferability is high and that the likelihood of success in different urban contexts is strong. Experiences from London, The Hague, Tirana and Toronto highlighted in this brief show the different alternatives and good practices for a successful implementation of School Streets. Most of these are characterised by creativity, strong leadership and community involvement, often starting with a pop-up phase, before moving towards an interim phase and finally seeking permanence.

In a nutshell, School Streets support child-friendly cities in the following ways:

- ▶ School Streets have a positive effect on traffic reduction from parents and caregivers, as well as general improvements on road safety, without causing disruptions in nearby streets.
- ▶ School Streets have a considerable positive effect on air quality, reducing pollution levels on streets surrounding schools.
- ▶ School Streets are a good starting point towards a modal shift to active travel, and have proven to increase the percentage of pupils travelling actively, adding to their physical activity, mental awareness and stress reduction.
- ▶ School Streets can have a generational impact of active travel at a young age, making them more likely to continue walking and cycling as adults.
- ▶ School Streets have proven to receive enormous positive support not only from children and parents but also from teachers and other community members in the neighbourhood.

- ▶ School Streets recenter public joy and urban play in the planning conversation, and support stronger community bonds and resident wellbeing.

## Key considerations:

- ▶ In highly car-centric environments, short pop-up interventions or street parties are an effective starting point for longer School Street implementation. These short experiences can mitigate the potential backlash of taking away space from cars, and rapidly demonstrate the benefits of such interventions.
- ▶ Community interests and engagement are key factors that should guide the preliminary work when choosing the location of a School Street pilot, and continue throughout the process leading up to the implementation.
- ▶ Participatory approaches should be included in School Street expansion. Going from a pop-up, to interim, to permanent stage requires a collaborative and flexible transition process.
- ▶ A highly experiential methodology is advised. Co-creation invites collective imagination about the potentials of a street, allowing members of the community to express their desires and reducing the possibility of conflict.
- ▶ For evaluation and monitoring, ex-ante and ex-post surveys are suggested. Establishing a benchmark measure of the modal share of students, reasons for their mode preference, as well as road safety, air quality and noise levels records are of utmost importance.
- ▶ The presence of a political champion is important in order to legitimise the project, facilitate permitting and other requirements from local authorities, and strengthen community buy-in and trust.

# School Streets as agents of change: Recommendations by the Clean Cities Campaign

Based on the evidence and case studies presented above, the Clean Cities Campaign makes the following recommendations for the implementation of School Streets:

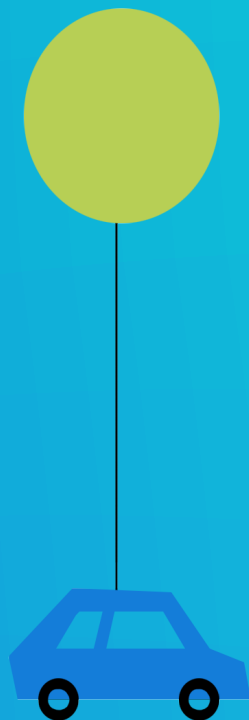
- 1 Develop a clear plan** to roll out school streets in front of all kindergartens, elementary and middle schools by 2030 at the latest, with intermediate annual targets.
- 2 Roll out temporary street closures first**, and use the time to engage with residents, schools, parents and children themselves in the definition of the project. Consider tactical urbanism as a way to roll out a temporary School Street.
- 3 Make School Streets permanent.** Limiting hours to only drop-off and pick-up times can work for temporary School Streets but ultimately, most School Streets should become permanent. This will support a lasting change of transport patterns and make enforcement easier.
- 4 Install and maintain the necessary (basic) infrastructure.** School Streets require (basic) infrastructure to ensure permanent closure of the street to cars, such as bollards, flower pots, barriers. Some of these can be built locally, such as the 'Wikiblocks' used in Toronto.
- 5 Plan an awareness raising campaign** with parents who drive on the benefits of school streets. Consider incentivising and promoting autonomous initiatives by parents and teachers, such as bike to school days.
- 6 School Streets need to be coupled with a programme to increase the safety and ease of journeys to and from school by bike, on foot or with public transport.** It is essential that the way to school be safe, which usually also requires infrastructure improvements. Appointing mobility managers for each school (district) should also be considered to act as a link between residents and the school community on the one hand, and city hall and the local transport authority on the other hand.



# References

1. NACTO-GDCI. (2020). Streets for Pandemic Response & Recovery. National Association of Transport Officials. <https://nacto.org/publication/streets-for-pandemic-response-recovery/>
2. Forthcoming (2022). School streets globally: A political economy analysis of the rise of school streets in Europe and around the world. Fia Foundation.
3. Bernard van Leer Foundation (2021). Policy Brief: Air Pollution in Early Childhood. <https://bernardvanleer.org/publications-reports/policy-brief-air-pollution-in-early-childhood/>
4. Global status report on road safety 2018: summary. Geneva: World Health Organisation; 2018 (WHO/NMH/NVI/18.20). Licence: CC BY-NC-SA 3.0 IGO).
5. Global action plan on physical activity 2018–2030: more active people for a healthier world. Geneva: World Health Organisation; 2018. Licence: CC BY-NC-SA 3.0 IGO
6. Kennedy, R (2018) Children spend half the time playing outside in comparison to their parents. Child in the City. <https://www.childinthecity.org/2018/01/15/children-spend-half-the-time-playing-outside-in-comparison-to-their-parents/>
7. World Health Organization, n.d. Physical activity. Available at: <https://www.euro.who.int/en/health-topics/environment-and-health/Transport-and-health/data-and-statistics/physical-activity2>
8. Transport for London, n.d. Healthy Streets for London Prioritising walking, cycling and public transport to create a healthy city. London, pp.1-30. Available at: <https://content.tfl.gov.uk/healthy-streets-for-london.pdf>
9. Transport for London (2018). Walking & Cycling Action Plan. London, pp. 1- 111. Available at: <https://content.tfl.gov.uk/mts-walking-action-plan.pdf>
10. Public Health England. (2016) Road injury prevention Resources to support schools to promote safe active travel. London. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/505277/25\\_Feb16FINAL\\_DOCUMENT.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/505277/25_Feb16FINAL_DOCUMENT.pdf)
11. U.S. Department of Transportation, Federal Highway Administration (2017) National Household Travel Survey. URL: <https://nhts.ornl.gov>.
12. Voulgaris, C. T., Smart, M. J., & Taylor, B. D. (2019). Tired of Commuting? Relationships among Journeys to School, Sleep, and Exercise among American Teenagers. Journal of Planning Education and Research, 39(2), 142–154. <https://doi.org/10.1177/0739456X17725148>
13. Harris Interactive pour UNICEF. (2020) Sondage auprès des parents d'élève sur les trajets domicile – école et le principe des rues scolaires. [http://harris-interactive.fr/wp-content/uploads/sites/6/2020/09/Rapport-HI-pour-UNICEF\\_Sondage-aupres-des-parents-d-eleve-sur-la-pollution-autour-des-ecoles.pdf](http://harris-interactive.fr/wp-content/uploads/sites/6/2020/09/Rapport-HI-pour-UNICEF_Sondage-aupres-des-parents-d-eleve-sur-la-pollution-autour-des-ecoles.pdf)
14. Harris Interactive pour UNICEF. (2020) Sondage auprès des parents d'élève sur les trajets domicile – école et le principe des rues scolaires. [http://harris-interactive.fr/wp-content/uploads/sites/6/2020/09/Rapport-HI-pour-UNICEF\\_Sondage-aupres-des-parents-d-eleve-sur-la-pollution-autour-des-ecoles.pdf](http://harris-interactive.fr/wp-content/uploads/sites/6/2020/09/Rapport-HI-pour-UNICEF_Sondage-aupres-des-parents-d-eleve-sur-la-pollution-autour-des-ecoles.pdf)
15. Transport for London (2021). School Streets Air Quality Study. London. Available at: <https://www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/school-streets-air-quality-study>
16. Edinburgh City Council (2016) School Streets pilot project evaluation. Transport and Environment Committee report, 30/08/16.
17. Davis A (2020) School Street Closures and Traffic Displacement: A Literature Review and semi-structured interviews. Report by Traffic Research Institute, Edinburgh Napier University.
18. Child Health Initiative and FIA Foundation (2021) Every Child's Right to Breathe. London: A Case Study. London, pp. 1-48. Available at: <https://www.childhealthinitiative.org/media/460791/every-childs-right-to-breathe-spreads.pdf>
19. Air Quality Consultants (2021). Air Quality Monitoring Study: London School Streets. London, pp. 1-94 [https://www.london.gov.uk/sites/default/files/school\\_streets\\_monitoring\\_study\\_march21.pdf](https://www.london.gov.uk/sites/default/files/school_streets_monitoring_study_march21.pdf)
20. Hopkinson L, Goodman A (joint first authors), Thomas A, Aldred R and Sloman L (2020) School Streets: Reducing children's exposure to toxic air pollution and road danger. Report by Transport for Quality of Life and Active Travel Academy for Possible and Mums for Lungs, December 2020.
21. Edinburgh City Council (2016) School Streets pilot project evaluation. Transport and Environment Committee report, 30/08/16.
22. Child Health Initiative and FIA Foundation (2021) Every Child's Right to Breathe. London: A Case Study. London, pp. 1-48. <https://www.childhealthinitiative.org/media/460791/every-childs-right-to-breathe-spreads.pdf>
23. Ghent (2017) Mobility plan Ghent 2030. Mobility as the driving force for a sustainable and accessible city. [https://www.eltis.org/sites/default/files/c1\\_scheirs\\_mobility\\_policy\\_ghent.pdf](https://www.eltis.org/sites/default/files/c1_scheirs_mobility_policy_ghent.pdf)
24. Weg Code (2018) Artikel 22undecies. Verkeer in schoolstraten. <https://wegcode.be/wetteksten/secties/kb/wegcode/2172-art22undecies>
25. Van de Velde, K., Holemans, D. (2020) Cities as Places of Hope: Ghent. Oikos. [https://gef.eu/wp-content/uploads/2020/02/GEF\\_Oikos\\_Article\\_Ghent-2.pdf](https://gef.eu/wp-content/uploads/2020/02/GEF_Oikos_Article_Ghent-2.pdf)
26. Child Health Initiative and FIA Foundation (2021) Every Child's Right to Breathe. London: A Case Study. London, pp. 1-48. <https://www.childhealthinitiative.org/media/460791/every-childs-right-to-breathe-spreads.pdf>
27. Nahverkehrs-praxis (2021) Zwei neue Schulstraßen in Wien. <https://www.nahverkehrspraxis.de/zwei-neue-schulstrassen-in-wien/>
28. Bennett C (2019) Why is travelling actively to school important? Sustrans blog, 25/02/19. <https://www.sustrans.org.uk/our-blog/opinion/2019/february/why-is-travelling-actively-to-school-important#>
29. Child Health Initiative and FIA Foundation (2021) Every Child's Right to Breathe. London: A Case Study. London, pp. 1-48. <https://www.childhealthinitiative.org/media/460791/every-childs-right-to-breathe-spreads.pdf>
30. Davis A (2020) School Street Closures and Traffic Displacement: A Literature Review and semi-structured interviews. Report by Traffic Research Institute, Edinburgh Napier University.
31. CIHT (2021). Waltham Forest School Streets case study. CIHT. <https://www.ciht.org.uk/blogs/school-streets-should-they-become-a-permanent-feature-of-our-landscape/>
32. 8 80 Cities (2020) 8 80 Streets Mountview Summary Report. Toronto, Ontario. <https://www.880cities.org/wp-content/uploads/2020/06/8-80-Streets-Mountview-Summary-Report.pdf>
33. Varma, R. (2021) Reimagining safer school streets with children using the crosswalk program. International Association of Traffic and Safety Sciences. <https://doi.org/10.1016/j.iat-ssr.2021.03.003>
34. Harris Interactive pour UNICEF(2020) Sondage auprès des parents d'élèves sur les trajets domicile – école et le principe des rues scolaires. [http://harris-interactive.fr/wp-content/uploads/sites/6/2020/09/Rapport-HI-pour-UNICEF\\_Sondage-aupres-des-parents-d-eleve-sur-la-pollution-autour-des-ecoles.pdf](http://harris-interactive.fr/wp-content/uploads/sites/6/2020/09/Rapport-HI-pour-UNICEF_Sondage-aupres-des-parents-d-eleve-sur-la-pollution-autour-des-ecoles.pdf)
35. Mobility Agency Vienna (2018) Schulstraße: mehr Sicherheit für Kinder. <https://www.mobilitaetsagentur.at/presse/schulstrasse-mehr-sicherheit-fuer-kinder/>
36. Bloomberg Philanthropies (2020) New studies show School Streets improve air quality. <https://www.bloomberg.org/press/new-studies-show-school-streets-improve-air-quality/>
37. Davis A (2020) School Street Closures and Traffic Displacement: A Literature Review and semi-structured interviews. Report by Traffic Research Institute, Edinburgh Napier University.
38. 8 80 Cities (2020) 8 80 Streets Mountview Summary Report. Toronto, Ontario. <https://www.880cities.org/wp-content/uploads/2020/06/8-80-Streets-Mountview-Summary-Report.pdf>
39. Thomas, A. (2022). Making School Streets Healthier: Learning from temporary and emergency closures. Report by Cross River Partnership and Active Travel Academy (March 2022).
40. Qendra Marrëdhënie (2022). Rrugët Për Fëmijët. Tirana School Streets Program. Qendra Marrëdhënie <https://www.qendra-m.org/en/school-streets/rrugjet-per-femijet>
41. Russell W. & Stenning A. (2020): Beyond active travel: children, play and community on streets during and after the coronavirus lockdown, Cities & Health, DOI: 10.1080/23748834.2020.1795386
42. Levner, A. (2019). "Turning Spaces into Playces". The City at the Eye Level for Kids. Stipo.
43. Varma, R. (2021) Reimagining safer school streets with children using the crosswalk program. International Association of Traffic and Safety Sciences. <https://doi.org/10.1016/j.iat-ssr.2021.03.003>
44. ITDP (2022). Access and Babies, Toddlers, and Their Caregivers. Access for All Series, Policies for Inclusive TOD. ITDP, Bernard van Leer Foundation.
45. Hackney Council (2021) Hackney School Streets Toolkit for Professionals 2021 Edition. London, pp. 1-44 Available at: <https://drive.google.com/file/d/1UVVmMxxgFBIKSgE-h9sZn3s4sP7wK-WmC/view>
46. Hackney Council (2019) Hackney Council launches Nationwide Blueprint to ban traffic outside schools. Available at: [www.hackney.gov.uk](http://www.hackney.gov.uk)
47. Hackney Council (2019) Hackney Council launches Nationwide Blueprint to ban traffic outside schools. Available at: [www.hackney.gov.uk](http://www.hackney.gov.uk)
48. Den Haag (2021) Low-emission zones in The Hague. <https://www.denhaag.nl/en/in-the-city/getting-there-and-around/low-emission-zones-in-the-hague.htm>
49. Den Haag (2020) Road Safety implementation Program 2020-2022. [https://denhaag.raadsinformatie.nl/document/8820776/1/RIS305102\\_Bijlage\\_1](https://denhaag.raadsinformatie.nl/document/8820776/1/RIS305102_Bijlage_1)
50. Woudstra (2020) School Streets Help Students Arrive Safely in The Hague. Dutch Cycling Embassy. <https://www.dutchcycling.nl/en/news/blog/school-streets-help-students-arrive-safely-in-the-hague>
51. Qendra Marrëdhënie (2022). Rrugët Për Fëmijët. Tirana School Streets Program. Qendra Marrëdhënie <https://www.qendra-m.org/en/school-streets/rrugjet-per-femijet>
52. Qendra Marrëdhënie (2022). Rrugët Për Fëmijët. Tirana School Streets Program. Qendra Marrëdhënie <https://www.qendra-m.org/en/school-streets/rrugjet-per-femijet>
53. Battisti, S. (2022). Interview with the author.
54. 8 80 Cities (2020) 8 80 Streets Mountview Summary Report. Toronto, Ontario. <https://www.880cities.org/wp-content/uploads/2020/06/8-80-Streets-Mountview-Summary-Report.pdf>
55. 8 80 Cities (2020) 8 80 Streets Mountview Summary Report. Toronto, Ontario. <https://www.880cities.org/wp-content/uploads/2020/06/8-80-Streets-Mountview-Summary-Report.pdf>
56. Benni, J. (2022). Interview with the author.





#### About BYCS

We are an Amsterdam-based global NGO guided by the belief that bicycles transform cities and cities transform the world. We envision an urban future in which half of city trips are by bicycle by the end of the decade. To help achieve this we nurture, strengthen, and scale community-led cycling initiatives globally, striving towards this bold vision that we call 50×30.

[www.bycs.org](http://www.bycs.org)  
[connect@bycs.org](mailto:connect@bycs.org)

#### About the Clean Cities Campaign

The Clean Cities Campaign is a European coalition of organisations hosted by Transport & Environment. Together, we aim to encourage cities to transition to zero-emission mobility by 2030, encouraging European cities to become champions of active, shared and electric mobility for a more liveable and sustainable urban future.

[www.cleancitiescampaign.org](http://www.cleancitiescampaign.org)  
[info@cleancitiescampaign.org](mailto:info@cleancitiescampaign.org)

