



**SPEED KILLS CHILDREN.
USE THE VACCINE.
#SLOWDOWN**

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A child hit by a car at 20 miles an hour (30 km/h) can survive. Hit at 50mph (80km/h), most will die.

And every day 3000 children are killed or seriously injured on the world's roads. By failing to tackle vehicle speed, we're failing to protect our young.

Reducing speed by design on roads where kids live, and where they walk or cycle to school, is urgent. This is a highly cost effective public health intervention, enabling exercise, reducing vehicle emissions. A proven area-wide 'vaccine' against serious injury. Low speeds save lives.

Last year governments and city mayors worldwide adopted the New Urban Agenda, calling for 'a safe and healthy journey to school for every child as a priority'. Now it is time to honor that commitment, and to begin in a practical way, by reducing and enforcing traffic speeds to a level safe for children everywhere, prioritising low speed zones in residential areas and near schools.

Every child deserves the chance to live. Every journey they make must be safe. Accelerate action now to **#SlowDown**.

SUPPORTED BY

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**TRAFFIC SPEED KILLS CHILDREN
WE HAVE THE VACCINE
WE MUST DEPLOY IT NOW**



A NEW CHILD HEALTH PRIORITY

It is a tremendous achievement. Since 1990, child mortality for under-fives has halved. Sixty-two countries have met the Millennium Development Goal target for reducing under-five mortality by two-thirds between 1990 and 2015. Another 74 countries cut their under-five mortality rates by at least half.

There is still so much to do. But importantly, with the Sustainable Development Goals, focus is widening to also include the health of older children. As Melinda Gates, co-chair of the Bill & Melinda Gates Foundation, says: "For too long adolescents have been the forgotten community of the health and development agenda. We cannot afford to neglect them any longer."* And any strategy for addressing the health of older children must tackle their leading cause of death: road traffic crashes.

Many of the great public health advances have come about because a vaccine or other solution was found to a problem and systematically implemented. In the 21st century we no longer consider it acceptable that children catch polio or die from preventable diseases, or that city dwellers suffer cholera or typhoid through poor sanitation or unclean drinking water.

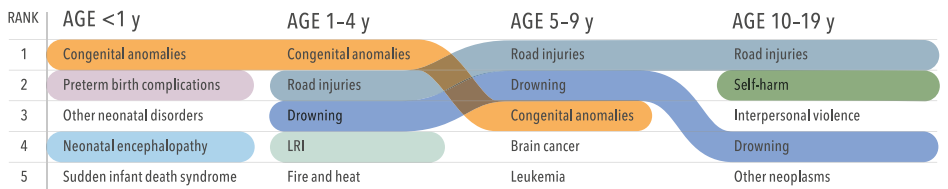
But somehow we do accept that, every day, 500 children and adolescents die on our roads, while thousands more are maimed, disabled or otherwise injured.

**Yet there exists a 'silver bullet' vaccine proven to significantly reduce injuries:
Cutting urban traffic speeds and/or removing vehicles from close proximity to pedestrians.**

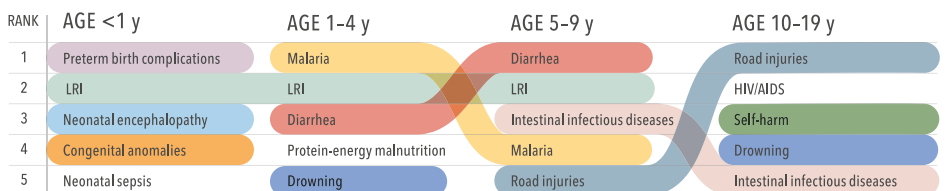
*Lancet 2016

TOP 5 CAUSES OF DEATH IN CHILDREN & ADOLESCENTS BY AGE GROUP IN DEVELOPED & DEVELOPING COUNTRIES, 1990-2013

DEVELOPED COUNTRIES



DEVELOPING COUNTRIES



LRI=lower respiratory tract infections

Source: 2013 Global Burden of Disease data. IHME/JAMA 2016



SPEED KILLS

Of the many factors contributing to deaths and injuries on the world's roads every year, speed is arguably the largest, and most controllable.

Speed contributes to about one-third of all fatal road crashes in high-income countries, and up to half in low- and middle- income countries. Excessive speed is an aggravating factor in all crashes.



Children hit by a car at 30 km/h may survive. At 50km/h, most will die.



A 5% cut in average speed can result in 30% reduction in the number of fatal crashes.



A 5% increase in average speed leads to a 10% increase in crash-related injuries, and a 20% increase in fatal crashes.

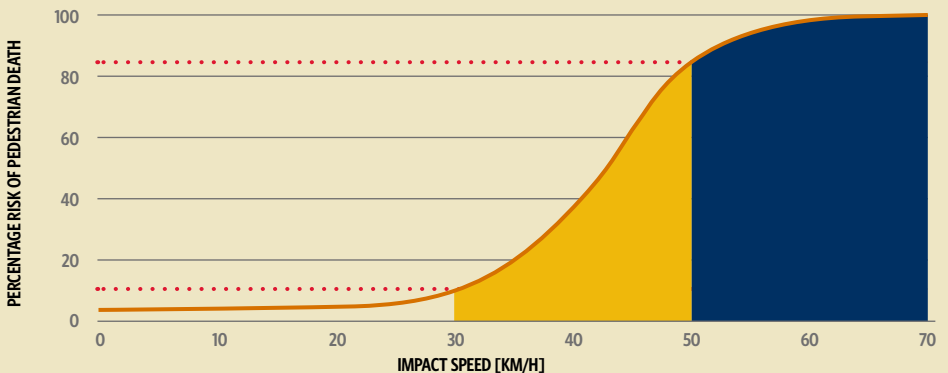


Speeds 5 km/h above average in 60 km/h urban areas, and 10 km/h above average in rural areas double the risk of a fatal crash.



Lowering speed zones, for example from 50 km/h to 30 km/h, helps decrease pollutant emissions, improving air quality. This is crucial in school zones, as children are particularly susceptible to the adverse effects of air pollution.

THE RELATIONSHIP BETWEEN PEDESTRIAN SAFETY AND THE IMPACT SPEED OF VEHICLES



Based on crash data results, Tingvall and Haworth, 1999

Walking to school in Vietnam, nine year old Nguyen Mai Huyen Mi was hit by a speeding motorcycle and suffered fatal head injuries.



Michael, from Ghana, suffered multiple fractures and missed months of schooling after being hit by a speeding minibus on his way home from school.



Ten year old Eunice was hit by a speeding minibus while walking to school in Nairobi, Kenya. Suffering multiple injuries, she missed more than 3 months of school.




THE HUMAN IMPACT


Every day more than 3000 children and adolescents suffer a road traffic death or serious injury – a casualty toll equivalent to the emptying of two large schools.

Our children have a basic human right to an education, to making the journey to school free from violence or injury and without having to travel through a dangerous or toxic environment.

Our children deserve the traffic speed vaccine, and on their behalf we demand it.



Twelve year old Sammy, from New York City, was hit and killed by a speeding van. The same year two other schoolmates were also killed by speeding traffic.



Mexican schoolgirl Wendy can no longer walk after being hit by a speeding, drunk, driver. Her mother, who gave up work to care for her, now struggles to pay the rent.



Australia
Pedestrians ☆☆☆☆☆

- 40km/h
- Footpaths
- Raised pedestrian crossing
- Street lighting
- 1 lane in each direction
- Good sight distance
- Managed parking
- Median island



India
Pedestrians ☆☆☆☆☆

- 50km/h
- No pedestrian crossing
- Low crossing demand
- No Physical median
- Low side friction (roadside activity)
- Footway provision both sides
- 1 lane in each direction



Philippines
Pedestrians ☆☆☆☆☆

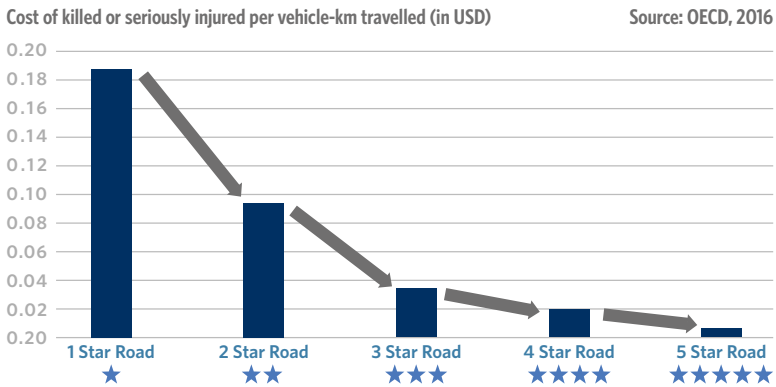
- 1 lane in each direction
- Good sight distance
- 80km/h
- Narrow paved shoulder
- No formal footpaths
- No pedestrian crossing
- No school zone
- No Street lighting

THE VACCINE: LOWER SPEED

The link between speed and safety is clear. The higher the speed, the greater the likelihood of a collision, the more energy in any impact and the greater the severity of a crash.

The International Road Assessment Programme (iRAP) undertakes star ratings of all types of road in more than 80 countries. These star ratings provide a simple, objective, research-based assessment of the safety of a road for all road users – whether pedestrians, cyclists, motorcyclists or car users. 5-star is the safest and 1-star is the least safe. As speeds go down on a road, the star ratings go up. For each incremental improvement in star rating the cost of fatal and seriously injured crashes is typically reduced by 33-50% (OECD, 2016).

The conclusion is clear: absent significant engineering to separate road users, speeds must be low.



When footpaths are ineffective or non-existent and crossings are absent or do not effectively slow traffic, as is often the case in developing countries, the risk to pedestrians is hard to manage. Speeds must be 40km/h or less to provide a 3-star or better protection for pedestrians.



Cost effective solutions exist to implement speed management and an urban Safe System, including:

Enforcing speed limits through the use of automatic speed cameras or high profile, consistent and sustained police enforcement

Building roads to include features that limit speed such as roundabouts and speed humps

Time-based lower speed limits when students travel to school and back

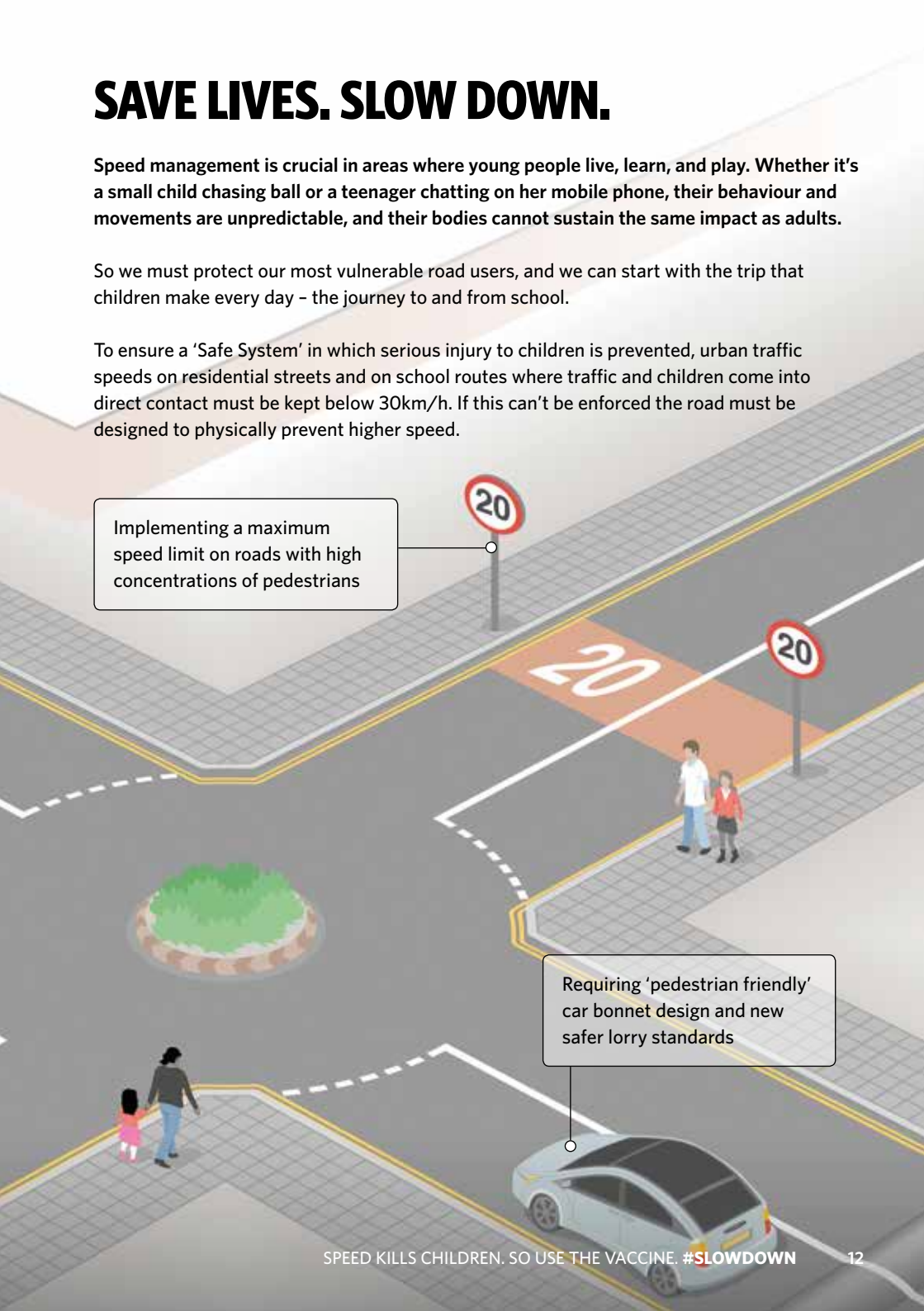
Accelerating introduction of 'active safety' speed technologies for cars, such as Autonomous Emergency Braking (AEB) and Intelligent Speed Adaptation (ISA)

SAVE LIVES. SLOW DOWN.

Speed management is crucial in areas where young people live, learn, and play. Whether it's a small child chasing ball or a teenager chatting on her mobile phone, their behaviour and movements are unpredictable, and their bodies cannot sustain the same impact as adults.

So we must protect our most vulnerable road users, and we can start with the trip that children make every day - the journey to and from school.

To ensure a 'Safe System' in which serious injury to children is prevented, urban traffic speeds on residential streets and on school routes where traffic and children come into direct contact must be kept below 30km/h. If this can't be enforced the road must be designed to physically prevent higher speed.



Implementing a maximum speed limit on roads with high concentrations of pedestrians

Requiring 'pedestrian friendly' car bonnet design and new safer lorry standards



CAMPAIGN FOR SPEED LAWS

Only 47 countries (24 of them high-income) currently meet the World Health Organization's recommended best practice on urban speed management, a national urban speed limit of 50 km/h and provision for local authorities to further reduce speed limits locally to ensure safe speeds.

A growing number of cities are now using national or state speed legislation, where it allows, to establish default speed limits of below 40km/h, or to implement 30km/h zones. And advocates across the world are making the case for modern, fit-for-purpose, speed laws to protect all road users, with the journey to school often at the forefront.

Speed legislation provides the mandate for action and investment on street design and police enforcement, so securing effective laws where they don't exist should be the first priority for campaigners. This is an issue on which road safety, cycling, walking, environmental, child rights and public health advocates should be working together in coalition, amplifying the demand for action.



CAMPAIGN FOR SPEED LAWS

If you want to campaign for new speed legislation, or advocate for lower speed limits in your neighbourhood, these networks and resources could help inform and design an intervention.





Global Alliance of NGOs for Road Safety
<http://roadsafetyngos.org>



GRSP Advocacy Resource Centre
www.grsproadsafety.org/resources/advocacy-resource-centre



GLOBAL
ROAD SAFETY
PARTNERSHIP

Road Safety Grant Programme
www.grsproadsafety.org/programmes/grants-programme/safer-road-users

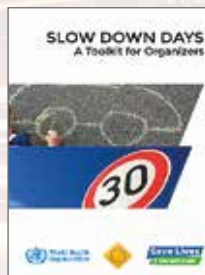


Save Lives
#SlowDown

UN Global Road Safety Week
www.unroadsafetyweek.org



Three Star Coalition
www.fundforglobalhealth.org/join-the-3-star-coalition



WHO Speed Advocacy Documents
www.who.int/roadsafety/en

DESIGNING THE VACCINE

The World Resources Institute global reference guide 'Cities Safer By Design' sets out clear advice on a toolkit of measures that urban planners and transport authorities can deploy to reduce road traffic injury and encourage walking and cycling. These approaches can be seen as an affordable vaccine against traffic speed and road injury and can be adapted to local conditions and applied liberally on urban streets. A few key examples of relatively simple road treatments from the report are described below. The guide is available at <http://www.wri.org>

THE BASICS OF SAFE SIDEWALKS

Sidewalks, pavement, or footpaths are portions of a street between the curb lines and the buildings for use by pedestrians. A well-equipped sidewalk accommodates pedestrian use and street furniture, as well as landscaping elements, including light poles, signs, fire hydrants, benches, mail boxes, newspaper boxes, parking meters, trash cans, etc.



SPEED HUMPS

Speed humps are raised pavement that can reduce speeds to a certain limit based on the height and length of the hump. Humps are artificial elevations on the roadway. A hump is often designed as part of a circle, a trapeze, or as a sinusoidal curve. Speed humps can be designed for different target speeds, and are not limited to low traffic streets.

Ideally, speed humps will enable vehicles to travel at a target speed consistently along a road, rather than slowing down and speeding up before and after each hump.

SPEED CUSHIONS

Speed cushions are traffic calming devices designed as several small speed humps installed across the width of the road with spaces between them. Speed cushions force cars to slow down but are different from a speed hump as they can better allow movement of larger vehicles - such as buses or ambulances - by straddling the cushions.



CHICANES

Chicanes are artificial turns created to slow traffic. They lead to a reduction in the width of the roadway, either on one side or on both sides or constructed in a zigzag, staggered pattern that directs drivers away from a straight line, which can reduce vehicular speeds on both one- and two-lane roads.

SAFE PLACES TO LEARN AND PLAY

Zones around children's playgrounds, parks, schools, and community centers are areas that require special attention to pedestrian safety. Children are more vulnerable than adults to collisions with motor vehicles, because their activities and movements are more unpredictable.



DELIVERING THE VACCINE

Re-engineering streets for low speed is a cost-effective public health solution. In communities across the world our partners and many other organisations are demonstrating that the low speed vaccine works, saves lives, and can be deployed in any town or city, anywhere.

In Sub-Saharan Africa our partner Amend works with local government, police and schools to implement low-speed zones and to provide footpaths around high-risk schools. A case control impact study in Tanzania of this ‘School Area Road Safety Assessments & Improvement’ (SARSAI) has shown a cost-effective 26% reduction in child injury where the project has been delivered.



Kijitonyama Kisiwani & Mwangaza Primary Schools

SPEEDS BEFORE AND AFTER SARSAI IMPLEMENTATION (AT SCHOOL ENTRANCE)

6:30am to 7:30am (Student Arrival Time)

	Before	After	% Difference
Average Speed	41 km/hr	17 km/hr	-59%
85% tile Speed	50 km/hr	21 km/hr	-58%

2:00pm - 3:00pm (Student Departure Time)

	Before	After	% Difference
Average Speed	39 km/hr	18 km/hr	-54%
85% tile Speed	51 km/hr	21 km/hr	-59%

In Vietnam, AIP Foundation has supported low-cost infrastructure changes to reduce speed and protect children with footpaths and speed humps around schools, and provided school-based training to children which has seen a rise in the proportion using pedestrian crossings at target schools from 49% in 2014 to 81% in 2016.



In South America, the World Resources Institute and the Institute for Transportation & Development Policy is advising authorities on 'Vision Zero' strategies and implementing low speed zones across large areas of crowded megacities.



In South Africa iRAP and the Global Road Safety Partnership are road-testing a new 'Star Rating for Schools' infrastructure safety scheme. Introducing crossings and speed management on school routes has reduced risk of serious injury at target schools by up to 85%.

DELIVERING THE VACCINE

Want to implement the speed vaccine to protect children, but don't know how to get started? These initiatives and resources could help you.



iRAP infrastructure safety assessments
www.irap.net/en/



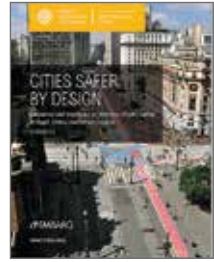
Global Designing Cities Initiative
globaldesigningcities.org



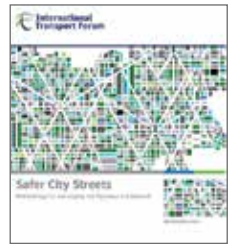
UN Environment's 'Share the Road' programme
web.unep.org/transport/sharetheroad/



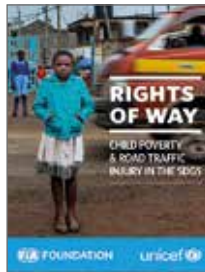
ITDP Sustainable Mobility Training
(Latin America) <http://ceci.itdp.mx/>



World Resources Institute's
'Cities Safer By Design' guide
www.wri.org/publication/cities-safer-design



Safer City Streets Network
www.itf-oecd.org/safer-city-streets



Advocacy from UNICEF and the Global Initiative for Child Health & Mobility
www.childhealthinitiative.org/connect/publications



New York City:
Crossing - Before

photo credit: NYC DOT



New York City:
Crossing - After



São Paulo:
Thousands of cyclists
protest in favor of the
construction of bike
lanes



São Paulo:
Bandeirantes
avenue on the first
day of restrictions
established for
motorcycles and
trucks



SCALING UP

Many cities are now recognising the benefits of the low speed vaccine, and are beginning to implement at scale. The results for public health are significant.

In São Paulo, Brazil, speed limits have been reduced on all classes of road, including some area wide reductions to 30km/h in high risk communities. Preliminary results indicate a 25.2% reduction in injuries, and a 33.3% decrease in fatalities compared to the same period in 2014.

In the US, New York City is bucking a national trend of rising road deaths. With a target to halve road deaths by 2030 (saving 1600 lives) the city has improved pedestrian crossings, cut speeds, and redesigned streets, reducing road traffic fatalities by 23% since 2013.

For Mexico City, adopting a 'Vision Zero' plan has meant a focus on speed management and reversing the hierarchy of road planning to put pedestrians first. The policy has brought immediate dividends, including an 18% reduction in deaths in the first year.

For cities with the vision and courage to use the speed vaccine, the benefits can be fast, cost-effective and impressive. Now more leaders need to lead, to show political commitment to scaling up the slow down.



Mexico City: Redesigning streets

photo credit: ITDP Mexico



These Nairobi schoolchildren are demanding action to make their roads safe and their air clean. The authorities are responding, pledging 20% of road budget to support walking, cycling and public transport infrastructure, as on this re-designed road.



HEALTHY STREETS FOR ALL

Reducing speed is also a prerequisite for improving the urban environment and creating the conditions for healthy living.

With the child health burden from air pollution and obesity on the rise, low-speed streets and provision of safe footpaths, cycle ways and crossings can kick-start an active mobility revolution.

Reducing speed to 30km/h significantly reduces diesel particulate emissions, one of the most dangerous pollutants for child health. It encourages independent walking and cycling by young people, so further reducing vehicle trips and emissions (for example on the school run). It promotes active living and exercise, tackling the troubling obesity epidemic now affecting children across the world and establishing healthy behaviours that can last a lifetime. It is a win-win-win for public health.

We are fostering political support for this agenda. Through our 'Share the Road' programme, UN Environment is working with cities in Africa and South America to promote active mobility and low-carbon investment plans. In Nairobi, for example, the city authority has committed to spending at least a fifth of its roads budget on pedestrian and cycling infrastructure and public transport hubs. Child health and the journey to school is often a key starting point in developing these plans.



“ I very much welcome the Child Health Mobility Initiative. Children are much more vulnerable to pollution than we adults are. So we should make sure that the road from home to school is safe, safe from accidents and safe from pollution. ”

Erik Solheim

Executive Director
United Nations Environment Programme

THE SDG OPPORTUNITY

With road safety, air quality and urban transport targets included in the Sustainable Development Goals we have a great opportunity to design safer and healthier streets for our children, and to show how this connects to achieving other goals, such as education and climate. The speed vaccine is a crucial element of this 'children first' agenda for the SDGs, promoting practical policies to ensure a safe system to protect the poor and vulnerable from road danger and air pollution.

- **Ensure safe routes to school for all children**, with walkable pavements, safe crossings, and effective vehicle speed management;



- **Ensure safe travel to school.** Seatbelts and safety checks for school buses, seat belts or appropriate child restraints in cars, helmets for motorcycle passengers;



- **Improve safety for all road users on high risk roads**, meeting at least 3 star (out of 5) safety performance as measured by the International Road Assessment Programme;



3 GOOD HEALTH
AND WELL-BEING



4 QUALITY
EDUCATION



11 SUSTAINABLE CITIES
AND COMMUNITIES



13 CLIMATE
ACTION



- **Prioritise pedestrians and cyclists in urban planning**, increasing investments in safe infrastructure for non-motorised transport to encourage active, low carbon, mobility and healthy streets for all.



- **Deploy and encourage pedestrian-friendly vehicle design and safety technologies**, such as Autonomous Emergency Braking, which can mitigate or even stop a crash;



- **Encourage policies to reduce vehicle emissions and improve air quality** such as reducing sulphur levels in fuel (below 50ppm); particulate filters on vehicles; improved vehicle fuel economy in line with GFEI targets; and vehicle restrictions where necessary.



COALITION FOR CHANGE



GLOBAL INITIATIVE FOR
CHILD HEALTH
AND MOBILITY

To advocate for safe and healthy journeys for every child the FIA Foundation is coordinating the Global Initiative for Child Health & Mobility, a new partnership for the Sustainable Development Goals working on preventing road traffic injuries and air pollution.

With global partners including UNICEF, UN Environment, the World Resources Institute, the Institute for Transportation & Development Policy, the Overseas Development Institute and Save the Children - and regional and technical partners on every continent, many featured in this document - we have a powerful voice and reach.

Our work is demonstrating the strong links between child road traffic injury and important SDG objectives including child poverty, education and a clean environment. In 2016 our advocacy secured inclusion of 'a safe & healthy journey to school for every child as a priority' in the Habitat III New Urban Agenda.

Now we are seeking more partners and resources to help build this coalition for change - including delivering the speed vaccine and safe systems in cities across the world.



SPEED KILLS CHILDREN. USE THE VACCINE. #SLOWDOWN



"When we found the cure for vitamin A deficiency, we administered it to millions of children. We have the cure for unsafe roads – low speeds. It is time we administer it."

**Alfred Sommer, MD, MHS, Dean Emeritus,
Johns Hopkins Bloomberg School of Public Health**

"The SDGs represent a new opportunity for tackling road safety & protecting children. We can set an early example by demonstrating the potential of safe routes to school for children across the developing world."

Kevin Watkins, CEO, Save the Children UK

"Help us keep every child, in every country, safe on the roads today, tomorrow and always."

Anthony Lake, Executive Director, UNICEF

"Every child deserves a safe journey to school. We have a vaccine that works. Now we need governments, cities and donors to act and deliver it."

Zoleka Mandela, Activist & Child Health Ambassador



GLOBAL INITIATIVE FOR
CHILD HEALTH
AND MOBILITY



FIA FOUNDATION



Fourth United Nations Global Road Safety Week, 8-14 May 2017



THE GLOBAL GOALS
For Sustainable Development

For more information:

childhealth@fiafoundation.org

www.childhealthinitiative.org

 [@childhealthGI](https://twitter.com/childhealthGI)

Global Initiative for Child Health and Mobility

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