

A young boy with a backpack is running across a road. He is wearing a white t-shirt, dark blue pants with a red stripe, and red sneakers. A red car is in the background, and the scene is slightly blurred to suggest motion.

UNFINISHED JOURNEY

THE GLOBAL
HEALTH RESPONSE
TO CHILDREN &
ROAD TRAFFIC



CHILD HEALTH
INITIATIVE



FOUNDATION

This advocacy paper has been written by the FIA Foundation, as a contribution to the Child Health Initiative.

The Child Health Initiative is an informal collaboration of organisations committed to advocating for the rights of children and adolescents to safe and sustainable mobility, and working together to implement and promote practical solutions. For a full list of partners see <https://www.childhealthinitiative.org/about-us>

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**THE GLOBAL HEALTH RESPONSE
TO CHILDREN & ROAD TRAFFIC**



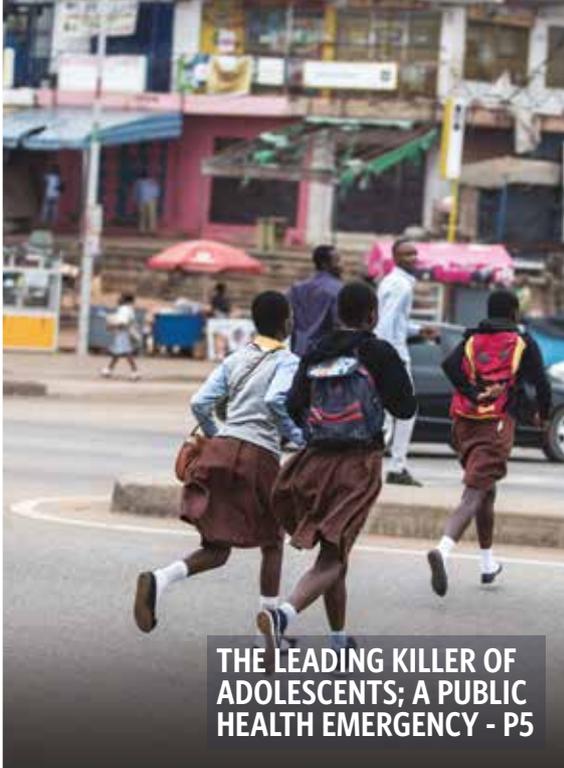
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INITIATIVE**



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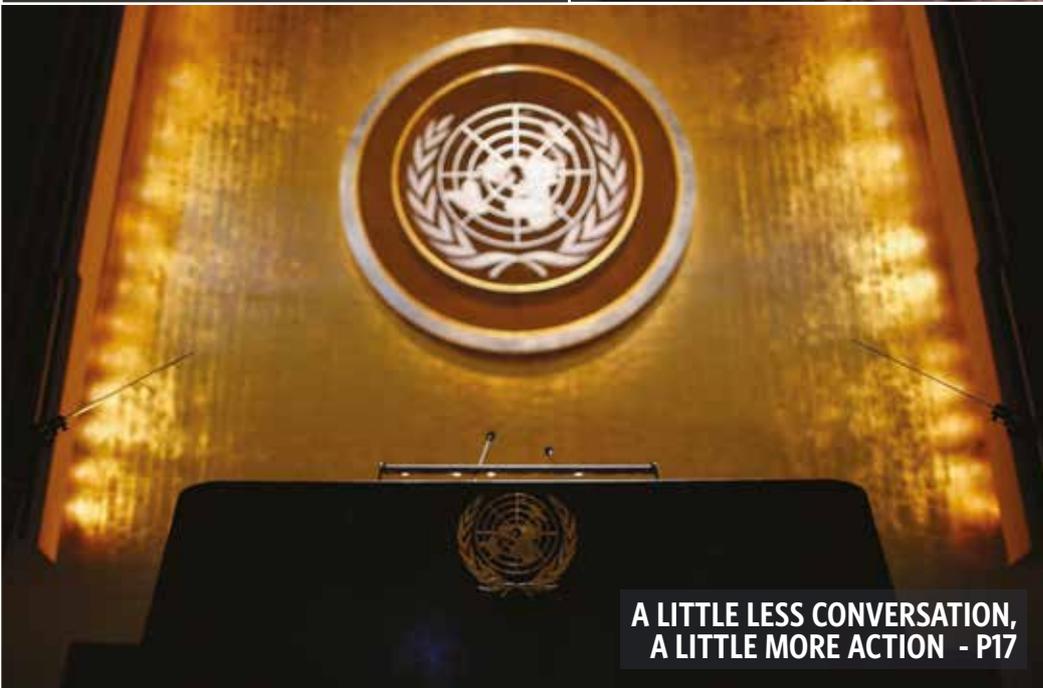
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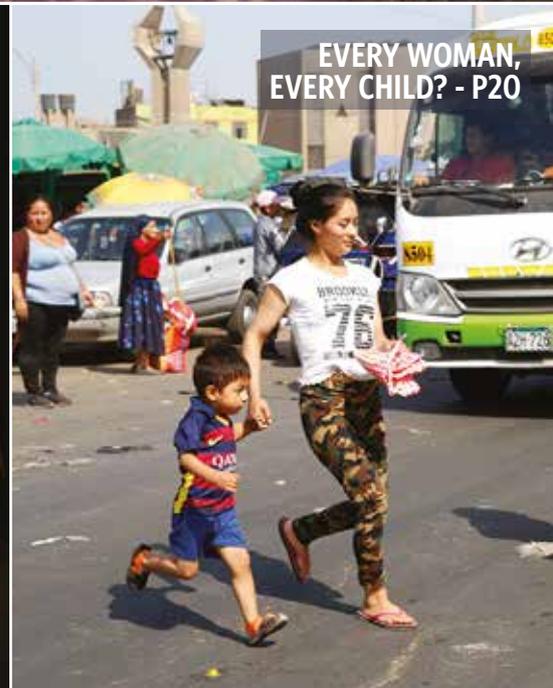
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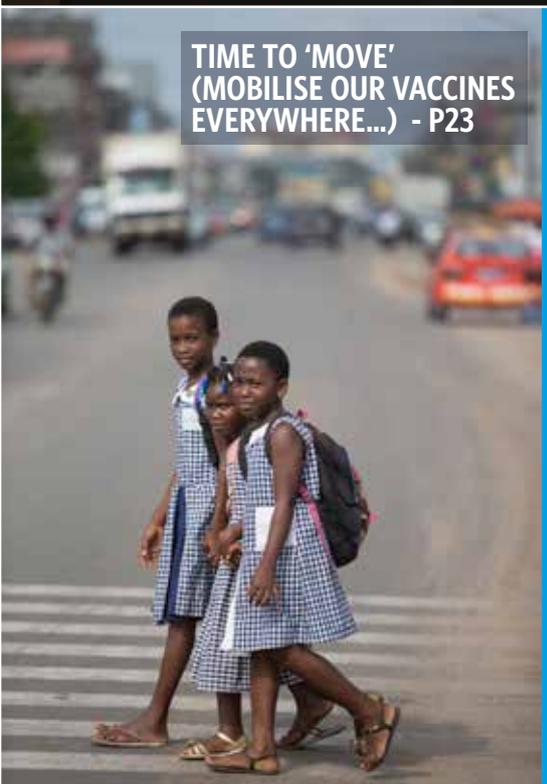
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EVERY JOURNEY, EVERY CHILD



In my work with UNICEF in Jamaica, I have become increasingly aware how important it is to uphold the rights of our children. I'm privileged to be able to use my voice to make sure children are protected everywhere. I want the kids growing up today to benefit from the same opportunities I had.

To achieve this, we need to focus on the rights of our children beyond the classroom as well as within the school gates. It's vital that we start with the journey to school. The biggest killer that school-age children face worldwide is road traffic injury. This is a huge and unacceptable burden.

Each day hundreds of millions of children make that most important journey – the journey to school. Far too many are exposed to severe danger, facing traffic moving at life-threatening speed, with no footpaths or safe crossings. On top of this, many children in our cities are forced to breathe toxic air. Our kids are simply trying to go to school and we are failing in our duty to keep them safe and healthy.

I remember my own journey to school, it was such an important part of growing up. I lived in the inner-city community of Waterhouse, in Jamaica's capital. It was clear that my journey to school and back home was traumatic for my mom. Each day she would wait for me at the bus stop on Spanish Town Road and walk me safely home. Now that I'm a mother I understand this feeling, I want to do everything I can to protect my son, Zyon.

I know how lucky I was to be given the protection I needed so that I could grow up safely, become independent and thrive. Now I call for action for the children of my country, and the world. We cannot stand by and allow them to face threats and danger when all they are doing is trying to go to school. We must do everything we can to keep them safe and uphold their rights on their most important daily journey.

Shelly-Ann Fraser-Pryce (above centre) is a double Olympic Champion, a Goodwill Ambassador for UNICEF Jamaica and an advocate for the Child Health Initiative.

EXECUTIVE SUMMARY

There is a fatal disconnect in global policy for child & adolescent health.

Every year, an estimated 350,000 children and adolescents are killed in road traffic crashes or by the effects of urban outdoor air pollution, to which road traffic is a significant contributor and factor. Road traffic is the leading cause of death for adolescents worldwide.

Millions more young people experience life-changing injury and other serious and long-lasting health problems – whether as victims of road traffic collisions; through the insidious damage of air pollution to developing lungs and brains that stunts growth, affects cognitive development and causes chronic respiratory illness; or – longer-term – through the cumulative effects of physical inactivity and indoor, sedentary lifestyles imposed by a car-dominated environment, contributing to obesity and a cocktail of non-communicable diseases (NCDs).

These serious health impacts of traffic are all increasingly being recognised and documented by the international community, which has mandated policy to address them:

- There are UN Sustainable Development Goal targets to halve road traffic injury (3.6); improve urban air quality (3.9) and deliver safe, sustainable and accessible urban transport (11.2);
- The United Nations' 'New Urban Agenda' urges "a safe and healthy journey to school for every child, as a priority";
- The UN's 'Every Woman, Every Child' Global Strategy for Women's, Children's and Adolescents' Health highlights the serious impact of road traffic injuries, air pollution and non-communicable diseases on adolescent health;
- Supporting the 'Every Woman, Every Child' strategy, the World Health Organization's guidance on 'Global Accelerated Action for the Health of Adolescents' – or AA-HA! for short – identifies road traffic injury as by far the leading cause of death and ill health for adolescent boys;

So these are not hidden or ignored issues. Yet they are neglected. There is data analysis and policy announcement, but no follow-through, little action. The global health community's policy journey is unfinished.

And it is this disconnect which every day results in thousands of real unfinished journeys; which every year costs hundreds of thousands of young lives. Because the failure to follow through with a major campaign of political action, funding and practical implementation is killing and injuring our young people on our streets every single day. And it is the poorest, most excluded, children and adolescents who are often most affected.



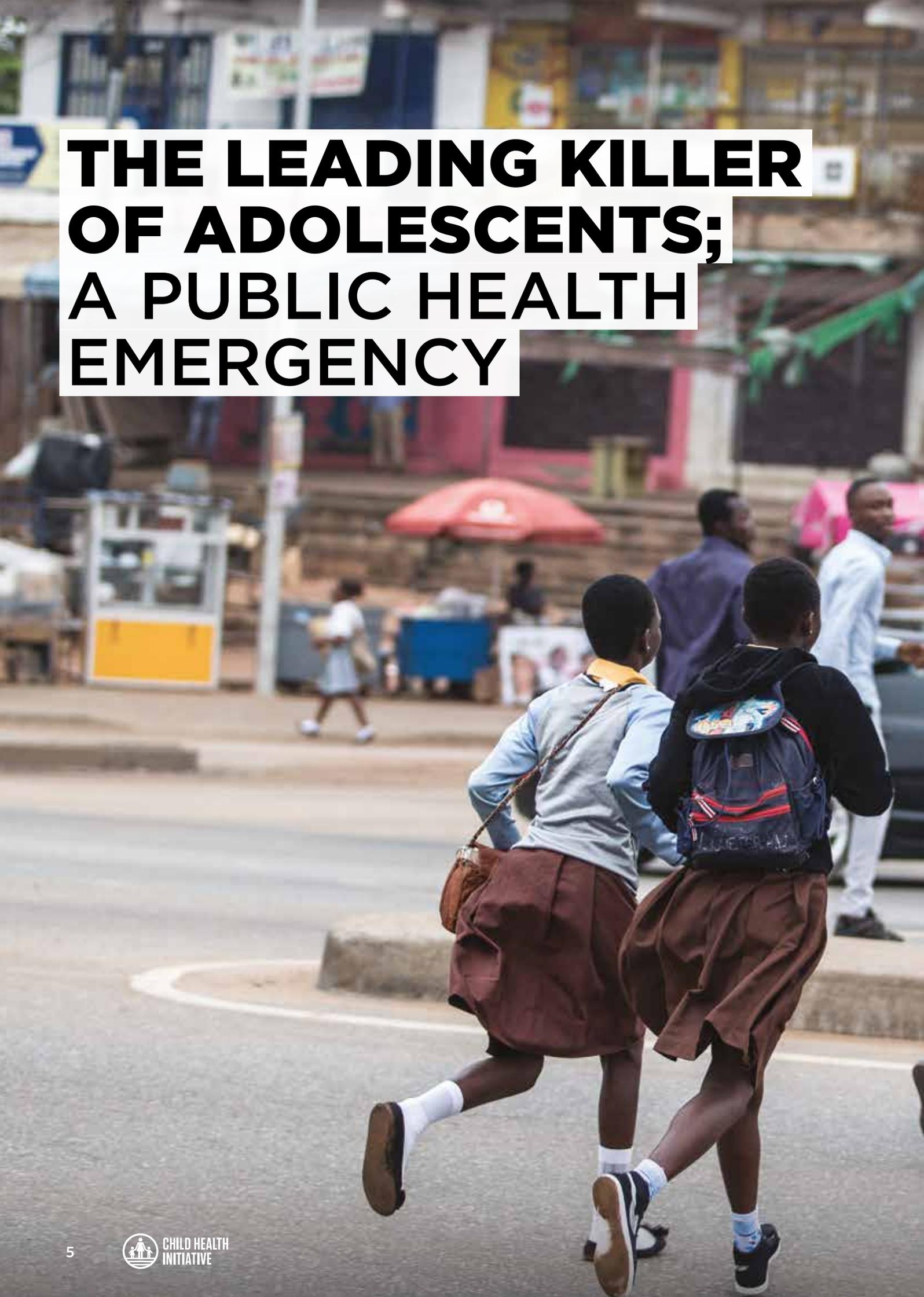


We know how to prevent road traffic deaths, injuries and pollution. We know it is highly cost-effective. We know that addressing the root causes - for example through reducing traffic, implementing the Safe System approach, including delivering the 'speed vaccine' (speed control, sidewalks and safe crossings protected by physical traffic calming), and promoting walkability through holistic policies for healthy streets - can have cross-cutting benefits for a sustainable and cleaner environment, for higher levels of physical activity, reduced obesity, for tackling climate change. We know too that cleaner vehicles and fuels, alongside improved systems for cooking, and restrictions on what can be burned in urban areas, can make a huge difference to air quality, again with multiple additional benefits.

But to realise this health dividend, the yawning gap between analysis and action must be addressed. To achieve this we recommend:

- **An action-oriented Global Commission on traffic-related child & adolescent health, to review how a range of known transportation and urban planning interventions can connect to and improve health outcomes for young people; to explore ways to strengthen these linkages within the UN's 'Every Woman, Every Child' strategic delivery agenda and the new WHO/UN Environment collaboration on health, environment and climate change; and to make recommendations for dramatically upscaling action and access to funding;**
- **Urgent commitment to extending the SDG road traffic injury target 3.6 deadline to 2030, in line with the vast majority of other SDG targets, as a more realistic and practical timeline for achieving a 50% reduction in global road traffic fatalities;**
- **Measurable and public commitments by governments and cities to achieve the WHO 2030 Voluntary Road Safety Targets, which provide a focus for cost-effective, achievable action to save lives;**
- **Measurable and public commitments by governments and cities to bring air pollution below WHO's recommended minimum safe level, and an urgent global review of the air quality thresholds that are actually safe for children;**
- **Donor support for the newly established UN Global Road Safety Trust Fund as an expert strategic delivery mechanism for child & adolescent health in the Every Woman, Every Child strategy, in close liaison and partnership with the EWEC Global Financing Facility;**
- **A high-level UN Special Summit to address emerging child & adolescent health issues and provide political endorsement for fast-track action; including the specific objective, as prioritised by governments in the New Urban Agenda, to tackle road traffic injury and air pollution, and ensure that every child has a safe and healthy journey to school by 2030.**

THE LEADING KILLER OF ADOLESCENTS; A PUBLIC HEALTH EMERGENCY



Every day we adults - as politicians, policymakers, car manufacturers, highway engineers, urban planners and, not least, as drivers - are visiting appalling violence on our children.

Road traffic is the leading cause of death for adolescents.¹ Taken together, road traffic injuries and ambient (outdoor) air pollution, to which traffic is a significant contributor, kill at least 350,000 children and adolescents each year.² Millions more young people suffer life-altering, maiming injuries in road crashes or experience other impacts that seriously affect their quality of life - whether lesser injury or post-traumatic stress from car crashes; or from the cumulative damage to developing lungs and bodies of breathing toxic air.

Every three minutes a child or young person dies as a result of road traffic injury: 227,000 children and adolescents (0-19) die on the world's roads every year.³ Road traffic injury is also the 5th highest cause of death for children aged 5-14 years old.⁴ For every child who dies, another suffers a life changing disability. For every disability, there are several serious injuries.⁵ The majority of victims are hurt while walking, cycling or riding on motorcycles, although there are significant regional variations and young adult drivers are also a high risk group - to themselves and others.⁶

300 million children currently live in areas where outdoor air pollution exceeds international guidelines by at least six times.⁷ They are some of the two billion

children who live in areas which exceed the minimum air quality limit for PM10 - a measure of the volume of fine particulate matter in the air.⁸ There are some estimates that the health effect on children of regularly breathing dirty air is equivalent to smoking four or five cigarettes a day, or more.⁹ Outdoor air pollution kills more than 127,000 children under the age of five each year.¹⁰ In many cities vehicles are responsible for a high proportion of air pollution, particularly near busy roads.

Streets dominated by traffic, or at least perceived by parents to have high levels of traffic danger, also discourage children's walking and cycling to school where alternatives (such as a private car) exist.¹¹ Good access to public transit, bicycle facilities, and low-cost recreation facilities have been found to be closely associated with physical activity.¹² There is also growing evidence that neighbourhoods designed to cater for pedestrians, with wide, walkable sidewalks and traffic calming to limit vehicle speed, do help to reduce childhood obesity, early warning for a cocktail of health issues in later life.¹³ This is vitally important in the fight against non-communicable diseases. Globally, 81% of adolescents (aged 11-17) were insufficiently physically active in 2010.¹⁴ The number of children and adolescents who are obese has increased tenfold since the mid-1970s.¹⁵

On the following pages we look in more detail at each of these health impacts of road vehicle traffic.

TRAFFIC POLLUTION

Without action, outdoor air pollution is predicted to be the leading cause of environment-related child death by 2050.¹⁶ Air pollution has the greatest traffic-related health impact on babies and children aged under-five. At least 127,000 young children died as a result of outdoor air pollution in 2013¹⁷, from lower respiratory diseases including pneumonia – now the biggest killer of under-fives¹⁸. Although there is little research disaggregating the contribution of traffic emissions from other sources of outdoor pollution, industrial, agricultural or domestic, it is widely accepted that urban traffic pollution is a significant contributor to the problem¹⁹, not least because harmful emissions from cars and trucks are delivered directly at street level into the mouths and noses of children.

The damage done to children by vehicle emissions is invisible but serious; it begins in the mother's womb and, reaching far beyond the headline figure of attributable child deaths, can affect health and life chances for a lifetime. Yet 2 billion children live in areas breaching WHO air quality guidelines²⁰, while every day 300 million of these children are walking to school and playing in what can only be described as a poisonous, toxic soup. Living more active lives, moving more energetically; breathing more quickly, taking in more air as a proportion of body weight than adults; staying outdoors for longer: children are particularly exposed to air pollution.

This traffic pollution causes internal injury. And because children's lungs are still developing, they are much more vulnerable than adults. Children's lungs and air passages are smaller, more permeable, and more easily blocked. Children's developing immune systems are more exposed to respiratory

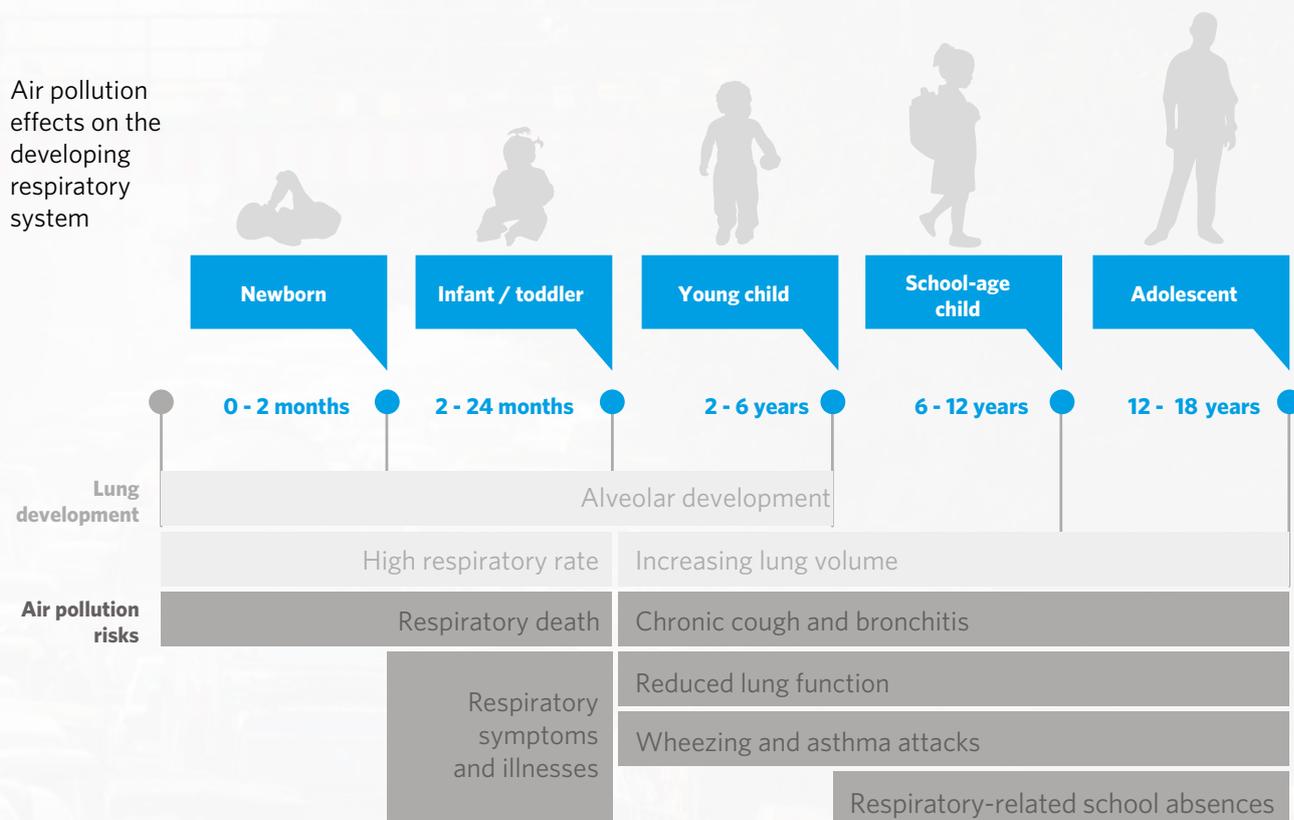
infections resulting from exposure to harmful pollutants. In addition to pneumonia, air pollution is also a contributory factor to asthma, one of the most common chronic health conditions in children²¹.

Particulate matter (PM) and nitrogen oxides (NOX) constitute the major traffic pollutants. Ultrafine PM_{2.5} (about 1/30th the width of a typical human hair) can penetrate deep inside the lungs and enter the bloodstream, causing health problems including heart disease. Nitrogen oxides can exacerbate pneumonia, asthma, and other bronchial symptoms, as well as causing lung inflammation and reduction in overall lung function.²² In addition, polycyclic aromatic hydrocarbons (PAHs), which are typically found in areas of high vehicle, particularly diesel^{23,24} traffic, contribute to a loss of or damage to white matter in the brain, affecting the neural connections crucial for learning and development.²⁵ ²⁶ Perhaps unsurprisingly, therefore, PAHs have been linked with higher risk of Attention Deficit Hyperactivity Disorder and other learning disabilities.²⁷ There is also growing evidence that exposure to high levels of traffic pollution, for example at schools in close proximity to busy roads, could be affecting the learning capacity of millions of schoolchildren.²⁸

Prenatal exposure to PAHs has also been found to increase risk of breathing difficulties and infection in babies.²⁹ UNICEF estimates that almost 17 million babies under the age of one live in some of the most severely affected regions of the world, where outdoor air pollution is at least six times higher than international limits. The majority of these babies – approximately 12 million – live in South Asia.³⁰

For too many millions of people outdoor air pollution is a scourge from before the cradle, affecting health and quality of life right through to a prematurely early grave.

FIGURE 1: CHILDREN ARE PHYSIOLOGICALLY HIGHLY VULNERABLE TO AIR POLLUTION



Source: UNICEF Clear the Air for Children, 2016.



ROAD TRAFFIC INJURY

As children grow older and gain more independence, road traffic injury becomes the major threat to life and health. For boys, by the time they are adolescents, road crashes are the leading - and almost entirely preventable - global cause of death.³¹

227,000 children and adolescents (0-19) die on the world's roads every year.³² Road traffic injury is also now the 5th leading cause of death for children aged 5-14 years old. For every death there is a life changing disability. For every disability, several serious injuries. As a result, the equivalent of two large schools are emptied of children every day.³³ If this happened all in one place, on just one day, as the result of war or natural disaster or a firearms incident, it would be front page news. But because the pain is spread across continents, on daily repeat, this human catastrophe is normalised and hidden in plain sight.

More than ninety-five per cent of children killed and injured on the road are from low- and middle-income countries.³⁴ There are important regional variations: a child in Sub-Saharan Africa is twice as likely to be killed as his or her counterpart in the next most dangerous region, South-East Asia.³⁵ But there is one constant: the most vulnerable road users in these countries are those outside of cars. The majority of those killed are travelling as pedestrians, on bicycles, or as passengers on motorcycles or on unsafe forms of public transport.

In high income countries, by comparison, a high proportion of children and adolescents are killed as car occupants³⁶. This reflects the fact that the car is the dominant mode, which has significantly reduced rates of walking and cycling by many children, and therefore exposure of those children as pedestrians. Urban areas are also often safer and more walkable than their developing city counterparts. Some teenagers are prosperous enough to drive a car (sometimes from as young as 15) and are at much greater risk of killing themselves, their passengers, and other road users than are older and more experienced drivers.³⁷ Paradoxically, young drivers often own or use the oldest and least safe cars. In many emerging markets, where motorisation is rising rapidly in the middle class and vehicle ownership is seen as a badge of success³⁸, vehicle safety is often substandard, with consumers treated as second-class citizens - by the same global car makers - compared with their counterparts in the OECD.³⁹

Looking to the future, the continent combining a massive demographic boom in youth with the greatest potential for increased motorisation is Sub-Saharan Africa, where fatality rates are already the highest in the world, despite still relatively few cars.⁴⁰ Surveys show that, in African cities, between 70-90% of children walk to school⁴¹, yet there are no sidewalks on more than 90% of roads combining pedestrians and fast traffic (moving at above 40km/h).⁴² Avoiding a calamitous and costly collision of demography, motorisation, poor urban planning and bad governance in Sub-Saharan Africa must be a priority.



UNHEALTHY LIFESTYLES

Lack of physical activity is a major risk factor for the rise in obesity and a range of non-communicable diseases (NCDs), including heart disease, colon and breast cancers, diabetes and depression. The WHO estimates that as many as 3 million deaths each year are related to physical inactivity. And the seeds of good- or ill-health in later life are often sown in childhood.

The WHO warns that “rapid social and economic development has changed the environment many children are now growing up in”, and lack of access to safe and attractive space for physical activity is contributing to an obesity epidemic fuelled by bad diet.⁴³ By 2030, Americans will be 46% less physically active than in 1965. The Chinese will be 51% less active than they were in 1991, Indians 14% less active than in 2000.⁴⁴ The consequences are clear. Globally, childhood obesity has increased tenfold since the mid-1970s. The number of obese children and adolescents rose from 11 million in 1975 to 124 million in 2016. An additional 216 million children are overweight.⁴⁵

Many NCDs in adults start during childhood and adolescence. The advocacy group NCD Child warns that key risk factors of adult NCDs (tobacco and alcohol use, unhealthy eating and physical inactivity), have a clear and inextricable link with the occurrence of specific NCDs in children and adolescents (for example asthma, childhood obesity, Type 2 Diabetes, dental disease and malnutrition). Unhealthy and risky

behaviours adopted in childhood often carry through into adulthood.”⁴⁶

The WHO Commission on Ending Childhood Obesity also makes clear that prevention of unhealthy lifestyles, increasing exercise and combatting NCDs should begin in childhood.⁴⁷ One key policy recommendation is for attention to children’s freedom of movement and independent mobility. “Increasing the opportunities for safe, appropriate...physical activity, both in and out of school, including active transport (walking and cycling), will have positive health and spill-over effects for all children and adolescents”, it urges.⁴⁸ Urban planning and design has the potential to both contribute to the problem and offer the opportunity to form part of the solution. Increased recreational space and safe walking and cycling-paths for active transport, help make physical activity functions of daily life.⁴⁹

In the context of the Sustainable Development Goals, an agenda of safe and sustainable journeys to school also complements wider objectives for reduced use of motor vehicles and walkable, more compact urban communities, which, studies show, will be essential for tackling climate change as well as the increasingly severe local air pollution that many cities are experiencing.⁵⁰ For health, education, tackling poverty and exclusion, for the life chances of the young generation, for protecting the environment, and simply for allowing children to be children, exploring their outdoor world, the benefits of healthy streets are clear.



AN ISSUE OF SOCIAL JUSTICE

Everywhere in the world, it is the poorest children who suffer most the health impact of traffic.⁵¹ And, as with the connected challenge of climate change, this is an important issue of equity and social justice: those who contribute least to the problem take the greatest burden of consequences on their shoulders.

For children, potential exposure to road traffic injury is closely connected to their local environment and so the surrounding context of a deprived area is an important factor. This has led researchers to conclude that injury is the area of public health with the steepest social gradient, with road traffic the most common cause of injury for children living in poverty.⁵² By way of illustration, in both New York City's lower-income East Harlem and high-income Upper East Side, the child population is around 30% of the total. Yet, over a fifteen year period, children accounted for 43% of crash victims in East Harlem and just 15% in the richer neighbourhood.⁵³ Similar disparities would be found in cities across the world, if the authorities could only be bothered to count. As the WHO points out, in relation to road traffic injury, "many of the children who are victims of this man-made calamity are poor. Attempts to address road safety for children are, therefore, inextricably linked to notions of social justice, and should be part of global efforts to reduce poverty."⁵⁴

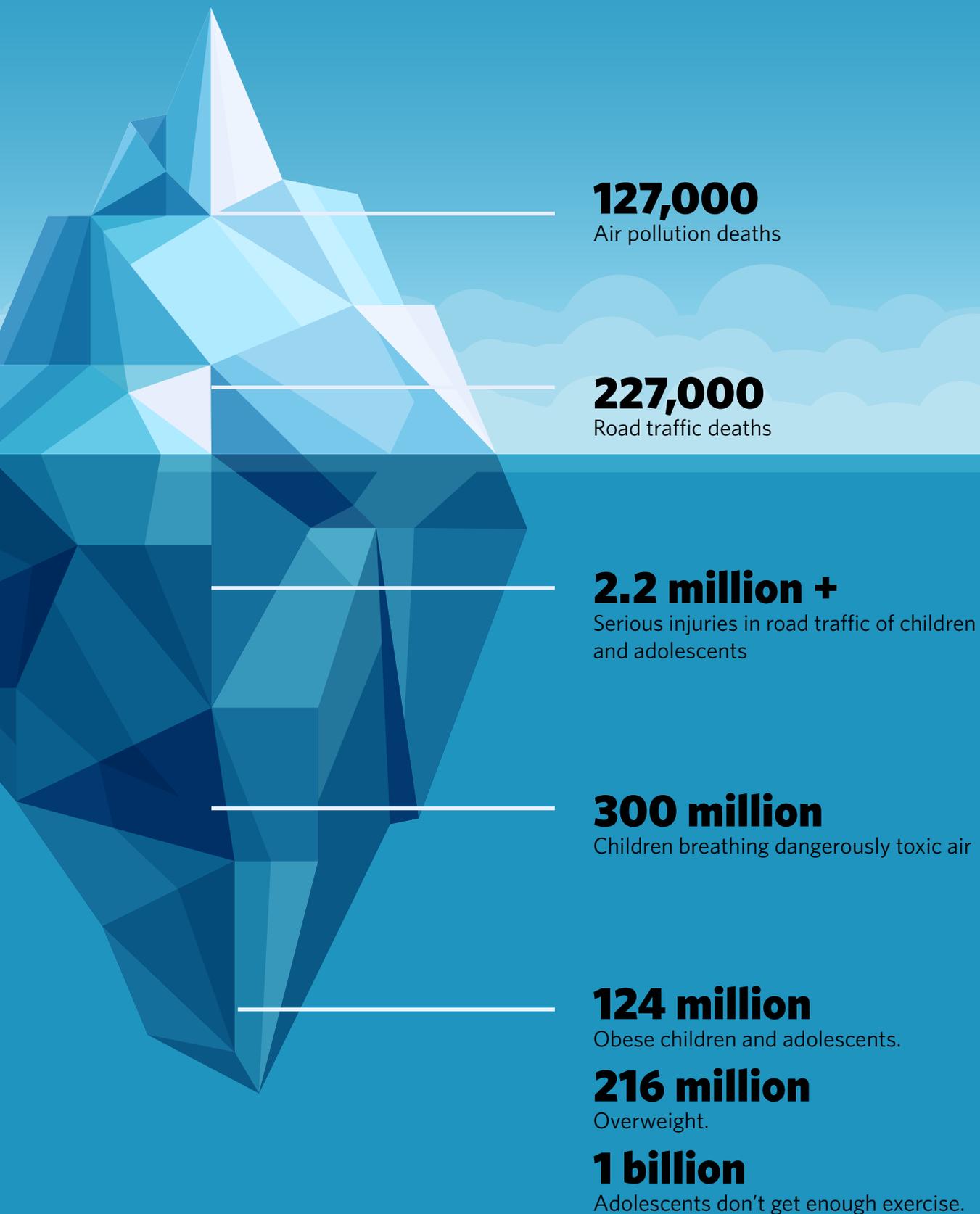
In urban areas risk factors such as proximity of housing to major roads mean that children living in poverty are also exposed to higher levels of air pollution, which can affect their lung development and cause respiratory illness, with research showing that these health impacts can be more prevalent among the poor and the young.⁵⁵ Research in London, for example, has found that more than 85% of the schools which

are most affected by poor air quality have pupils from catchments which are more deprived than the London average.⁵⁶ These children also come from families that are less likely to own a private car – they are poor kids breathing the dirty air of the better off.

Yet it is in low-income countries that the consequences of traffic-related health impacts can be most severe, because the penalties for ill-health are so much greater. Poor people are not only more likely to be involved in a road traffic crash, but are also more likely to become or remain poor as a consequence. Poor people may also be less able to pay for hospital care, and may therefore receive lower quality treatment.⁵⁷ A crash that kills or seriously injures an income earner can have considerable and lasting impact on the livelihoods of poor households.⁵⁸ Educational opportunities for children are often the first casualty of tighter household budgets, as they are sent to lower quality schools or taken out of schooling altogether, sometimes to be sent to work and reclaim the lost income themselves. There is also evidence that the perception of road danger discourages parents from allowing their children to attend school in the first place.⁵⁹

As we have seen, poorer children are more likely to live and be schooled in areas of poor air quality, and proximity to busy roads.⁶⁰ And when toxic smog envelopes a city, a regular experience across much of the fast developing world, children from low-income families have less opportunity than their richer counterparts to escape air pollution, whether into air-conditioned homes or to the countryside.⁶¹ As a result, poorer children have reduced lung function, compared with those higher up the socio-economic scale.⁶² It is perhaps the ultimate inequity: to have no choice but to breathe the killer air.

FIGURE 2: CHILD AND ADOLESCENT DEATHS ARE THE TIP OF THE ICEBERG



CHILDREN AND ROAD TRAFFIC: AN INTERLINKED AND GLOBAL HEALTH EPIDEMIC

More than a century on, the tragedy of the Titanic, which claimed 1,200 lives, still holds the imagination as the ultimate transport disaster. Yet every 36 hours an equivalent number of children and adolescents die in transport disasters all across the world. And the headline figures of child deaths are only one part of the story. These combined health impacts of traffic on young people are immense, and growing. Like an iceberg, the vast mass of suffering, ill-health and environmental degradation is hidden below the surface. And, like an iceberg, this epidemic has the potential to seriously damage sustainable development beneath the waterline if action is not taken.

The causes of this epidemic are interlinked. At their core is uncontrolled urbanisation meeting unchecked motorisation, with rampant inequality thrown into the mix. So the response needs to be integrated. It is clear that if we sit in separate silos trying to tackle road safety, NCDs or environmental pollution in isolation from each other we are doomed to failure. A mobility focus on child health, with a key coordinating role for the health sector, can help to bridge this gap and encourage a joined-up approach. In urban areas the policy priority should be on removing or restricting traffic (and both slowing and greening the traffic that remains) and re-engineering our public space to deliver healthy streets. The potential of such a coordinated approach for health, and for wider objectives like reducing carbon emissions, is truly exciting.

In the following sections of this paper we briefly examine the global policy response to child health impacts of traffic, and ask why – given the scale of the problem – more is not being done to integrate the issue into the mainstream SDG agenda. We explore the potential for a health-led revolution in re-imagining our streets to the benefit of all road users, especially children. And we propose some actionable next steps to improve coordination of and increase political commitment to this vital cross-cutting issue.



**A LITTLE LESS
CONVERSATION,
A LITTLE MORE
ACTION**



Across much of the world cities are expanding, and there is rapid motorisation. An urgent and coordinated health response is vitally needed. Given the scale of the health burden on children, there is no time or excuse for further inaction. And while air quality issues and non-communicable diseases are beginning to rise up the international agenda, with a clear policy narrative but still relatively low levels of political engagement in coordination and funding, even by these standards road traffic injury remains a comparatively neglected issue.

ADDING INSULT TO INJURY

Fifteen or twenty years ago the international community might have been forgiven for not taking practical action on the child health impact of road traffic crashes. For sure, the first WHO World Health Assembly resolution calling for action on road traffic injury had been tabled back in 1966⁶³, and over the subsequent decade there was some desultory and non-committal discussion of allocating resources and improving liaison⁶⁴, but other issues pressed for attention and, even as motorisation spread and its victims grew, like some unchecked epidemic, there followed almost 30 years of total inaction at the global level. The data was sparse, the issues under-researched and, after 1976, never tabled for discussion as a global health concern for almost three decades.



UN Deputy Secretary General Amina Mohammed launches the UN Global Road Safety Trust Fund, April 2018.

No longer. The 'global road safety crisis'⁶⁵ is now hardly an unknown. Since 2003 major reports by the World Bank, World Health Organization and UNICEF^{66, 67} have detailed the scale of road traffic death and injury. Several UN resolutions have been approved⁶⁸; high level ministerial conferences held and declarations acclaimed⁶⁹; the UN Decade of Action for Road Safety 2011-2020 launched⁷⁰; targets on road traffic injury included (indeed, prioritised - to achieve a 50% fatality reduction by 2020, ten years before the

rest!) in the Sustainable Development Goals.⁷¹ One major public health donor, Bloomberg Philanthropies, has invested almost \$250 million in road traffic injury prevention over the past decade.⁷²

Yet all this public policy activity and target setting, accompanied by regular (and no doubt sincere) emoting by health and transport ministers, heads of development banks and UN agency leaders at international conferences - exhortations to act, to fund, to move, to collaborate, to do more better and faster - have so far resulted in little in the way of concrete results. A new UN Road Safety Trust Fund, launched in April 2018 with a mission to catalyse country level strategic action, has at time of writing raised just over \$11 million in pledges⁷³ (\$10 million of which is pledged by the FIA Foundation, coordinator of our Child Health Initiative) and needs significantly more funding to even begin to achieve its potential.⁷⁴ Voluntary targets adopted by governments at the WHO in 2017 provide much needed focus, but lack political teeth⁷⁵. Injury barely figures in spending on global development assistance for health (DAH).⁷⁶

NOT YET ENOUGH!

This September the third High Level Meeting on Non-Communicable Diseases (NCDs) will be held in the UN General Assembly.⁷⁷ The event builds on the first UN High Level Summit on NCDs in 2011, and a subsequent review meeting in 2014. Childhood obesity will be on the agenda for the 2018 G20 summit in Argentina.⁷⁸ This is in part thanks to the NCD Alliance, a network of more than 2,000 civil society organisations in more than 170 countries, which, since 2009, has succeeded in doing something the road safety community has not yet achieved: forcing their health issue onto the global agenda at the highest level, with genuine engagement by Heads of State and prime ministers, leading to time-bound commitments to establish institutional process and capacity, and to meet specific progress indicators.

Yet the issue has faced, and continues to face, similar obstacles to injury in terms of other health concerns being more established and first in line for resources; historic and continuing underfunding; and lack of national political will to act. As the recent launch by WHO of an independent High Level Commission⁷⁹ and the current 'Enough!' campaign⁸⁰ led by the NCD Alliance highlight, feet need to be held to the fire to ensure commitment on paper is translated into real action. As with injuries, NCDs are seriously underfunded, accounting for 60% of the health burden yet less than 2% of DAH budgets.⁸¹

Yet despite slow progress in implementing agreed policies, the NCD movement has a visibility, momentum and trajectory that road safety campaigners should not only envy and seek to emulate, but with which they should also engage. Safe and walkable neighbourhoods and healthy streets are an essential foundation stone of efforts to increase physical activity, beginning in childhood, highlighted by WHO as a key policy for tackling NCDs.⁸² Designing streets to provide comfort and amenity for pedestrians and cyclists is as much a priority for the campaign to reduce NCDs as it is essential to cut traffic injuries and reduce harmful toxic emissions, also themselves a contributor to NCDs.

Rather than seeing these struggles as separate, we should be treating them as integral to each other, and making common cause. For example, talking about health outcomes, rather than road safety, will break down barriers, demonstrate relevance, open up new funding opportunities and forge new alliances. And NCD campaigners can learn the same lesson: to deploy transport budgets, as London is now doing⁸³, to serve a wider health agenda, with air quality increasingly the motivator for action.

CATCHING A BREATH

Air pollution is now headline news. Longstanding concerns about the effects on health of traffic pollution from both petrol and diesel vehicles have been turbocharged, by data showing the chasm between laboratory tests and real-world performance⁸⁴ and particularly by the 'Dieselgate' scandal and the emergence into the public and political realm of the realisation that 'clean diesel' is not so clean.⁸⁵ In fact the dash to diesel in the early 2000s, as the fuel efficient and climate-friendly option, has actually exacerbated urban air quality problems in high-income cities that had been beguiled into thinking traffic pollution was on the way to being a problem of the past.⁸⁶

In rapidly motorising cities of Asia, South America and Africa, increased traffic causes smog which, combined with other non-transport sources of air pollution, results in a toxic haze sometimes lasting days. In India and China, school closures because of dangerous air pollution are becoming a regular winter 'public health emergency' occurrence.^{87,88} In Africa, importing (dumping) of old, gross-polluting petrol and diesel vehicles is causing a pollution and health crisis of immense proportions, what the OECD Development Centre ironically describes as "the coincidence in time and place of old and new sources of air pollution, of old

cars with catalytic converters removed and the latest and best of Volkswagen's output".⁸⁹

There is an increasingly high profile global response to the issue from health and environmental leaders, from governments and city mayors, assisted by the existing political structures enabling the effort on climate change. At the 2016 Climate Summit in Marrakesh a Ministerial Declaration on Health, Environment and Climate Change called for the creation of a global "Health, Environment and Climate Change" Coalition.⁹⁰ In January 2018, the heads of WHO and UN Environment signed a wide-ranging institutional collaboration described as 'the most significant formal agreement on joint action across the spectrum of environment and health issues in over 15 years'.⁹¹ Their joint Breathe Life campaign has now signed up more than 30 cities, including London, to a goal of bringing air quality within WHO limits by 2030.⁹² The campaign partnership includes the Climate & Clean Air Coalition, which has so far raised almost \$80 million from bilateral donors for a 10 year action plan tackling a range of emission sources, including black carbon from heavy duty diesel vehicles.⁹³



The increasing top-level prioritisation of air pollution by WHO is encouraging, and may well help to bring global health donors on board. Some major philanthropies, such as the Children's Investment Fund Foundation⁹⁴, Bloomberg Philanthropies, which through C40 Cities is supporting the TRUE - The Real Urban Emissions - initiative⁹⁵, and the Hewlett Foundation⁹⁶ are already investing in or entering the field. Meanwhile the World Bank is highlighting the costs of air pollution⁹⁷ and has launched a new multi-stakeholder 'Sustainable Mobility for All' initiative, also addressing road safety, air quality and climate efficiency, with funding support from the UK Government⁹⁸.

SEEN BUT NOT HEARD



So there is progress in all three areas of road traffic-related health impacts, some of it very encouraging. Yet taking the response to these issues together, it is clear that action and resourcing is nowhere near commensurate to the scale of the death, disability, ill-health and environmental degradation being inflicted. And when it comes to children specifically, this gap is even more noticeable, the policy discussion almost non-existent. They are seen, but they are not heard unless the issue affecting them neatly corresponds to donor agendas and competences. There is a, literally fatal, disconnect between what the international community and national governments now know about the serious health impacts of road traffic on child health, and what they then do in terms of practical action and resourcing.

Why is this? Taking a closer look at one of the UN's key policy agendas, the Every Woman, Every Child strategy for child, adolescent and maternal health, can begin to provide an answer, and the basis for a solution.

EVERY WOMAN, EVERY CHILD?

The UN's 'Every Women, Every Child' (EWEC) initiative, launched in 2010, aims to provide a framework and roadmap for efforts to end preventable deaths among women, children, and adolescents. Its Global Strategy for the SDGs, published in 2015, builds on the focus and achievements of the Millennium Development Goals with an emphasis on continuing collaborative responses to tackle leading killers of expectant mothers, newborns and the under-fives, as well as HIV/AIDS, Malaria, Tuberculosis and neglected tropical diseases.

But it also expands its focus to include new issues, including non-communicable diseases, air pollution and traffic injury. UN Secretary General Antonio Guterres describes what is at stake: "...the investments we make today in women's, children's and adolescents' health and well-being will help build the peaceful, sustainable and inclusive societies we have promised to achieve through the Sustainable Development Goals."⁹⁹

This vision has succeeded in marshalling funding pledges for the EWEC Global Strategy of at least US\$ 28.4 billion, with lower-middle-income countries pledging an estimated US\$ 8.5 billion of the total. The Global Financing Facility in Support of Every Woman, Every Child¹⁰⁰, launched at the 2015 Addis Ababa Financing for Development Conference, plays a coordinating role, helping governments to focus strategies, find donor and implementation partners and design reforms of domestic health financing.



A Global Financing Facility Trust Fund, hosted at the World Bank, provides governments with preparatory catalytic funding with an emphasis on efficient release of billions of dollars of International Development Association (IDA) funding; unlocking and re-deploying national budgets towards maternal, child and adolescent health; and health service reforms¹⁰¹. The Trust Fund has raised and committed US\$ 525 million since 2015, from donors including the Bill & Melinda Gates Foundation, Canada, Norway and the United Kingdom, and its current replenishment process aims to raise an additional \$2 billion by the end of 2018.¹⁰² Yet little of this funding and effort has been allocated to improving air quality, indoor or outdoor, and none to tackling the leading killer of adolescents: road traffic injury.

Why is this? The 2017 Progress Report on the EWEC Global Strategy highlighted that “adolescent health remains a key concern, particularly because lack of earlier focus on this age group has resulted in less rapid progress compared with areas such as maternal and child health.”¹⁰³ Yet efforts to reduce adolescent mortality have mainly focused on the (vitally important issues of) sexual rights and health of young women, and preventing maternal mortality in childbirth. This is hardly surprising. The architecture or ‘ecosystem’ of the EWEC is dominated by coalitions of organisations working on communicable diseases and sexual and reproductive health. These include the ‘H6 Partnership’¹⁰⁴, comprising UNAIDS, UNFPA, UNICEF, UN Women, WHO and the World Bank; the Partnership for Maternal, Newborn and Child Health¹⁰⁵, with a focus on preventing new-born, under-fives and maternal mortality, and reproductive health; and the ‘Family Planning 2020’ initiative¹⁰⁶, supported by the Bill & Melinda Gates Foundation, established to support sexual rights, education and contraception.



Melinda Gates supporting Every Woman, Every Child: the SDG action plan for child, adolescent & maternal health.

All of these initiatives pre-date the launch of the Sustainable Development Goals in 2015, ensuring continuity with the mission of, and much narrower set of targets included within, the Millennium Development Goals (MDGs). Indeed, despite the EWEC’s broader remit and inclusive language, reflecting the all-encompassing SDGs, it is clear the Global Strategy reflects MDG ‘business as usual’ and the continuing focus of resources on a relatively small number of health issues (see figure 3). EWEC acknowledges this in describing how the key objectives of its 2016-2030 Global Strategy were refined: “...nine action areas were identified as key to achieving the Global Strategy objectives, based on the scientific evidence and practical experience gained from implementing the first Global Strategy and the

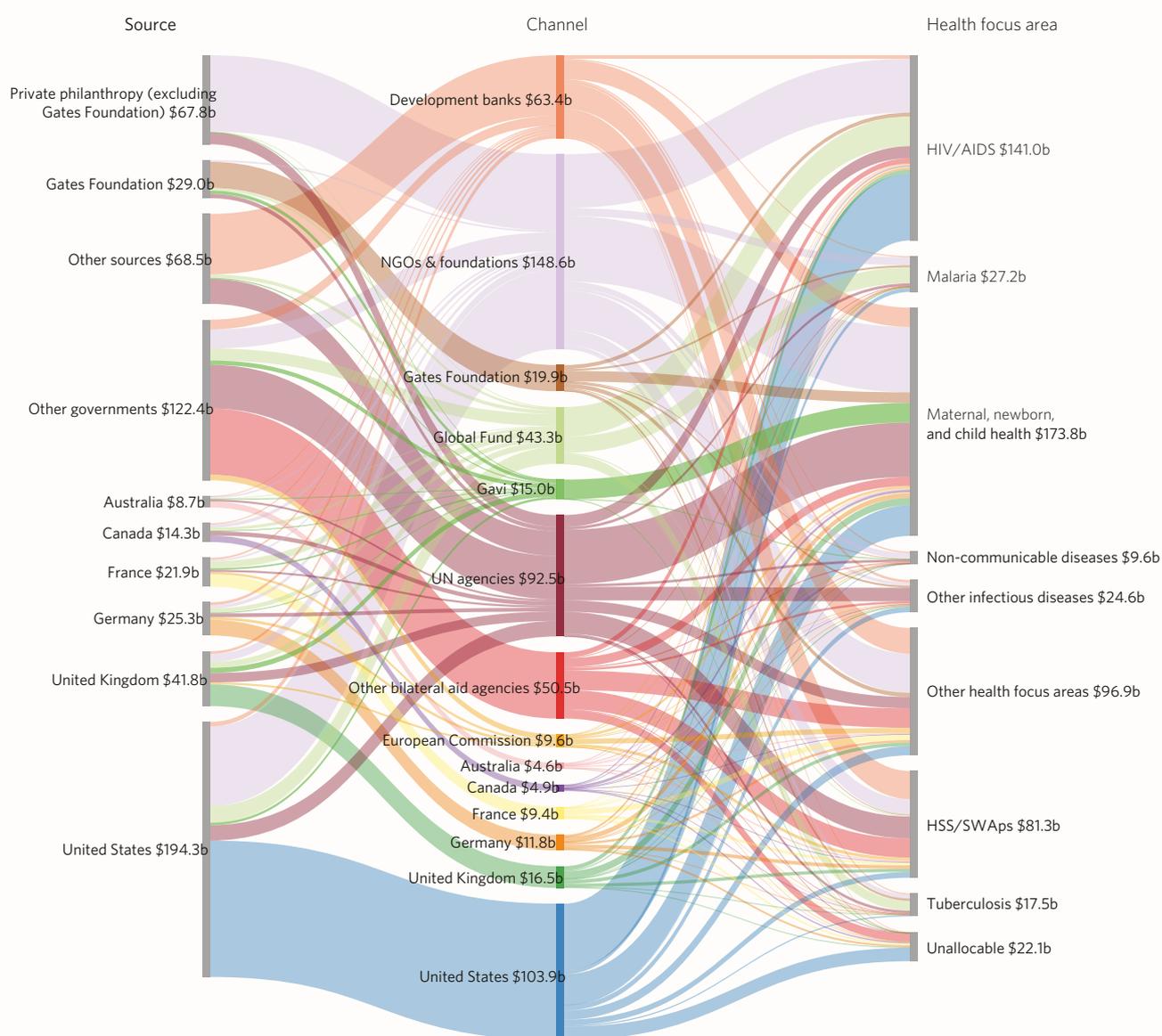
MDGs [author’s italics], on new research on effective interventions and approaches, and on new thinking about the integrated nature of health and sustainable development.”¹⁰⁷

So, from a combination of institutional bias towards pre-existing policy priorities and a lack of engagement by the road injury prevention community in the EWEC consultative process (not that engagement would necessarily have made much difference to the cards-stacked outcome) the result is that road traffic impacts, despite all the data, are absent from the key indicators of success in the EWEC strategy. Success for EWEC does not require action on child and adolescent road traffic health impacts, and nobody will be held accountable for failure. There is no political pressure, no administrative motivation, to make it a priority.

We are not in any way suggesting that this is deliberate neglect. Rather, it is symptomatic of an endemic vicious cycle. For example, there is a lack of expert and staff capacity on road traffic injury within international health policy institutions and development agencies. This is, in part, a result of a lack of clear ownership of the problem (a health outcome dependent on combined transport, policing and land planning competencies, with the health sector mainly responsible for cleaning up the mess rather than taking the lead in preventative action) resulting in hazy lines of accountability both at national and international level. This lack of clear accountability is further exacerbated by a failure in almost every country in the world to properly attribute and account for the health costs of road traffic injury¹⁰⁸ and a, not unconnected, lack of national political will to deal with the issues¹⁰⁹ - to be reactive, let alone proactive - and no high level international pressure or encouragement to do so. And so on...

This is how we arrive at a situation in which road traffic impacts are recognised, counted, headlined in global adolescent health reports as leading causes of death and ill-health for adolescents¹¹⁰, included in the SDGs, referenced in the UN’s main global strategy for child and adolescent health; and yet, ultimately, left stranded in a policy lay-by while the global health community motors away towards a pre-determined destination. The response cannot be to simply accept marginalisation. Instead, the road safety community, and all who care about data-led policy, should re-double efforts on behalf of the millions of forgotten child victims of road traffic. And if something isn’t working, try something different... and begin by learning from and connecting with those who are succeeding.

FIGURE 3: FLOWS OF DAH FROM SOURCE TO CHANNEL TO HEALTH FOCUS AREA, 1990-2017



Notes: 2017 estimates are preliminary. Estimates shown are aggregated across years 1990-2017. "Other health focus areas" captures DAH for which we have health focus area information but which is not identified as being allocated to any of the other health focus areas listed. Health assistance for which we have no health focus area information is designated as "Unallocable."

NGOs = Non-governmental organizations
HSS = Health system strengthening
SWApS = Sector-wide approaches

Source: Financing Global Health Database 2017

TIME TO 'MOVE' (MOBILISE OUR VACCINES EVERYWHERE...)



Lead is extremely harmful to young children, who absorb about 4–5 times more compared with adults from a given source.¹¹¹ Over the past few decades, all countries have phased out leaded gasoline.¹¹² The global health, child development and economic benefits of reducing lead have been immense, estimated in one study at approximately US\$2.45 trillion per year¹¹³, and benefiting at least 470 million people in Sub Saharan Africa alone¹¹⁴. This achievement, comparable to eliminating a major communicable childhood disease, did not happen by accident.

In 2002, at the Johannesburg World Summit on Sustainable Development, implementation conference for the Millennium Development Goals, the Partnership for Clean Fuels and Vehicles (PCFV) was established, under the leadership of the UN Environment Programme, with the express objective of removing lead from petrol. Convening more than 80 donors, industry and NGO partners, and technical experts, the PCFV moved quickly to identify and offer solutions to governments, bolstered by a regional agreement by African governments to phase out leaded petrol by the end of 2005. In 2002, only one country of the 49 countries in the region, Sudan, was fully unleaded; as of January 2006, all had switched to unleaded gasoline.¹¹⁵

This award winning implementation and technical Partnership, described by then UN Secretary General Kofi Annan as ‘one of the most successful partnerships to emerge from the World Summit on Sustainable Development’¹¹⁶ was, and remains, the best example of an action-oriented mobility coalition. Having eliminated leaded petrol globally, the PCFV is now targeting the reduction of sulphur, an essential prerequisite for clean engine technology, and the introduction of vehicle standards; and is an implementation partner in the Climate & Clean Air Coalition.

The path to eliminating lead, or reducing sulphur, is complex and multi-faceted, requiring coordination and cooperation. The same is true for preventing child traffic injury, or tackling the many reasons children become obese. Yet, by focusing on the headline objective that lead needed to be eliminated, and with a clear mandate from the Johannesburg World Summit on Sustainable Development, UN Environment cut through the undergrowth of excuses and reasons-why-not-now with a radical and simple efficiency that built momentum and political support. Smallpox and polio weren’t defeated by reshuffling deckchairs on endless new committees convened to fiddle around with

targets and discuss how complicated and confounding was the problem. Vaccines were identified, delivery mechanisms organised. The science may have been daunting, the mechanics and politics of immunisation may have been complex, but the narrative was simple and the focus was single-minded. It is beyond time for child traffic health advocates to also go direct, prioritise, and make a clear and deliverable demand.

DESIGN FOR CHANGE: FOR HEALTH AND CLIMATE

To defeat this child health emergency we don’t need to research and invent new vaccines. They already exist, and are proven in the field. And a priority example is the speed vaccine: traffic-calmed, low-speed urban neighbourhoods, designed to remove cars or bring all vehicles below the ‘death-speed’ threshold of 30km/h in places where people walk to live, work, play and learn; As part of a wider ‘Safe System’ paradigm shift in urban design, a shift to prioritise pedestrians, cyclists and active mobility over motorised transport, with increased provision of sidewalks, cycle lanes and traffic-calmed crossings, the speed vaccine is a key that unlocks the door to ‘Healthy Streets’¹¹⁷ (see box 1). Because when this Safe System approach is applied (see boxes 2 and 3), the resulting safe environment increases cycling and walking and goes on to generate a positive cycle which also reduces vehicle travel and emissions, improving health in other ways (see figure 4)¹¹⁸.

In 2017, public health and environmental leaders including Jimmy and Rosalyn Carter, Michael R. Bloomberg, then-WHO Director General Margaret Chan, the Executive Director of UN Environment, Erik Solheim, the European Commissioners for Transport and for Health, and the public health Deans of several leading universities came together to call for the rapid implementation of the speed vaccine. In newspaper advertisements they called for “reducing speed by design on roads where kids live, and where they walk or cycle to school...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.”¹¹⁹

The science and practical applications for this Safe System vaccine are available off-the-shelf. There are diverse examples of successful implementation. It is a rare example of a win-win-win policy. At a stroke, public authorities can begin the process of transforming urban space into a walkable, liveable, healthy environment and make a serious contribution to tackling injuries, NCDs, air pollution and climate change.¹²⁰

But, as with banning smoking from public places, eliminating death-speed traffic from urban streets and providing a genuine revolution in provision of walking and cycling facilities requires political determination, coalitions of support, and the kind of catalytic funding and advice that, as we have seen, is currently so lacking. As leading Safe System experts argue, building this movement, with the needs of children at the fore, is a vital foundation for wider progress on the whole agenda of healthy streets.¹²¹ In London, for example, where Healthy Streets have been adopted as a headline policy, speed management is at the heart of an agenda to make every street pedestrian- and cyclist- friendly, accessible and welcoming for young and old alike.



A training session for Bloomberg Philanthropies' Partnership for Healthy Cities, tackling air pollution, road danger and NCDs.

With his Partnership for Healthy Cities¹²², Mike Bloomberg is pioneering a holistic approach which could be the blueprint for sustained global health action. Speed management and 'walkable, bikeable, liveable' cities are at the heart of an NCD and injury-led initiative to tackle key risk factors for urban health, including unhealthy food, smoking and poor air quality. With a \$5 million initial seed investment from Bloomberg Philanthropies¹²³, 40 cities interested in participating, and close collaboration with WHO, the Partnership for Healthy Cities will publish an action-oriented report later this year to galvanise city strategies. Another Bloomberg-funded programme, the Global Designing Cities Initiative¹²⁴, is leading by example, working with cities to demonstrate the impact and benefits of changing the hierarchy of street use and design to focus on pedestrians and cyclists.¹²⁵ This now includes a specific focus on 'Streets for Kids', with a new policy and design initiative launched in April 2018 with the support of Bloomberg Philanthropies, Bernard van Leer Foundation, Botnar Foundation and the FIA Foundation.¹²⁶

And here is also where the public health agenda can ally with the climate change agenda. With transport typically responsible for around 25% of global greenhouse gas emissions and between 30-45% of some major cities' carbon emissions¹²⁷ – a share that is growing – there is increasing recognition that zero-emission transport (walking and cycling) can offer a way out. Analysis suggests that increasing cycling's global urban modal share from the current 6% to 11% by 2030 and 15% by 2050 can have a substantial positive impact on air quality and wider health, saving US\$24 trillion over the next 35 years and dramatically improving quality of life for the world's rapidly urbanising population. Benefits also include an 11% annual reduction in urban transport CO₂ emissions by 2050.¹²⁸

C40 Cities, the alliance bringing together mayors championing action on climate change, has recently launched a Walking & Cycling Network, already 27 cities strong, citing examples like Houston, Texas, where a new cycle route saw 117,000 car trips, 4000 bus rides and 2500 taxi rides avoided, offsetting around 350,000kg of CO₂.¹²⁹ And beyond climate change there is recognition of the important cross-benefits of such an approach, that it boosts physical and mental health, reduces air pollution and is affordable and equitable.¹³⁰ Of course, in seeking to raise their cycling and walking shares, many American and European cities are trying to get themselves to the enviable position that many African cities are currently in – and are rapidly moving away from – where a majority of road users are walking or cycling. For the sake of the climate, the urban environment and human health, stemming this tide away from zero emission transport, from losing the great position many cities are in jeopardy of discarding, must be a priority.

Here again, UN Environment has been a pioneer and leader. Its 'Share the Road' initiative¹³¹, launched with the FIA Foundation, is providing policy and technical advice and encouragement to governments and city authorities in African and South American cities to promote active mobility. In Nairobi, for example, UN Environment worked with the NGO Kenya Alliance of Residents Association (KARA) to persuade the County Assembly and the city government to adopt a non-motorised transport policy and earmark a minimum of 20% of road budget to providing and improving sidewalks and cycle lanes.¹³² Other organisations, including the World Resources Institute¹³³, the Institute for Transportation & Development Policy¹³⁴ and, as discussed above, the Global Designing Cities Initiative are effecting similar change in cities across Africa, Asia and Latin America. All are partners in our Child Health Initiative¹³⁵, ensuring a child-centred perspective informs wider work.

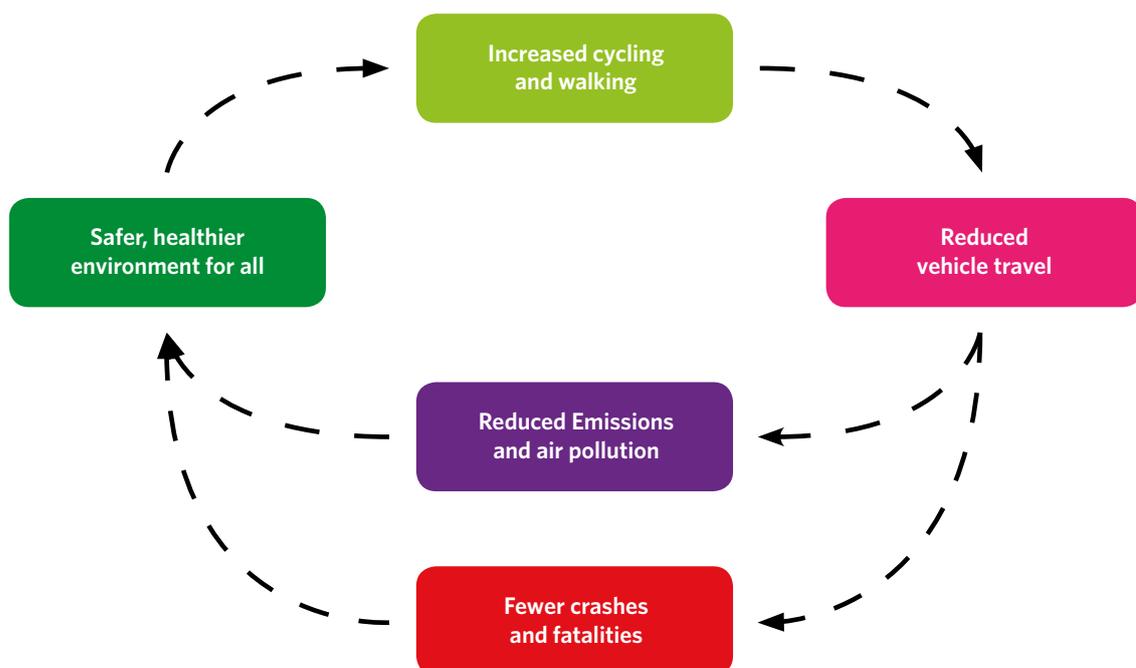


As we have seen, there is a compelling environmental, health and economic case for climate funds to be deployed to scale up this work, and make healthy streets a reality in every city. With the carbon savings, reduced air pollution and reductions in road traffic casualties, as well as wider health and social benefits, healthy streets will more than pay for themselves. Major climate investors like the new Green Climate Fund¹³⁶ could and should be entering into dialogue with their country clients to explore the potential for massive healthy streets programmes, transforming urban design and stemming the modal shift to private cars. And unlike the

politically fashionable flagship projects for Bus Rapid Transit and Metro systems, which tend to be commuter-focused, a healthy streets programme will particularly benefit the use that children make of their local streets.

Could healthy streets become an investment component of the Every Woman, Every Child strategy? Could the Global Financing Facility be advising and assisting governments, not only in reforming taxation for universal healthcare, tackling malnutrition, reproductive health and childhood diseases; but also in creating holistic health and environment policies that, by transforming urban neighbourhoods, improve environmental health, reduce traffic injuries, open up access to economic and educational opportunities for the poorest, and tackle climate change? Could global health and climate funds collaborate to deliver this transformation? Yes, they really could. It is all possible, but it requires a challenge to the current groupthink, it requires the courage to move beyond comfort zones and business as usual, to recognise that global institutions and major health philanthropies may need some re-tooling to make them fit for purpose in this rapidly changing modern world, ready to respond to the data that they themselves have collected but continue to ignore. Above all, it requires policymakers with the optimism, foresight and leadership to take the next step in this unfinished journey.

FIGURE 4: ENVIRONMENTAL AND HEALTH BENEFITS OF A SAFE SYSTEMS APPROACH



Source: World Resources Institute/World Bank.

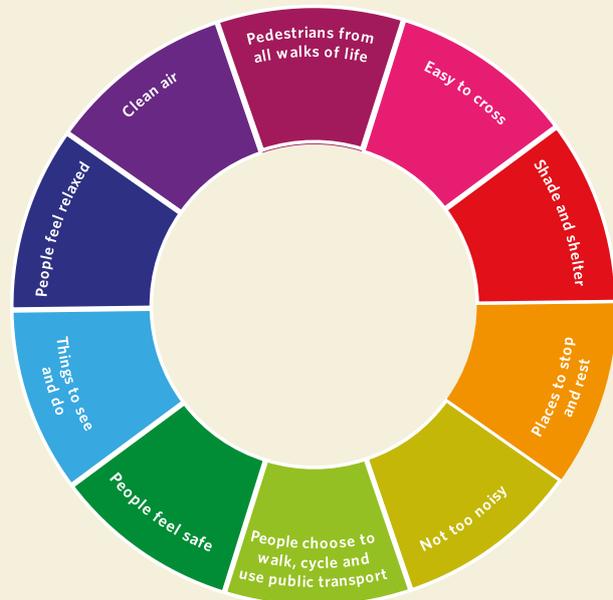
BOX 1: A HEALTHY STREETS REVOLUTION

The 'Healthy Streets Approach' puts people and their health at the centre of decisions about design, management and use of public space. It is a holistic vision encompassing clean air, 'Safe System' streets that are accessible and welcoming, personal security and public amenity. Driven by a public health agenda, it is a strategic approach that has the potential to unite different branches of national and municipal government, health professionals, urban and transportation planners and engineers, and civil society, in pursuit of common goals.

In London, the first city in the world to explicitly adopt this public health-first approach to urban planning, all development plans will be required to show how they will 'improve health and reduce health inequalities; reduce car dominance, ownership and use, road danger, severance, vehicle emissions and noise; increase walking, cycling and public transport use; and improve street safety, comfort, convenience and amenity.'

The approach closely aligns to Sustainable Development Goal target 11.2, for safe and sustainable mobility in cities, and to the New Urban Agenda's ambitions for the same. The key success indicators of Healthy Streets are that they are used by pedestrians from all walks of life, with people actively choosing to walk, cycle and use public transport. And there are a growing number of examples of cities around the world that are adopting essential elements of the policy toolkit, with the Safe System approach to road safety at their core.

FIGURE 5: LONDON'S 10 HEALTHY STREETS INDICATORS



Source: Lucy Saunders.



"My vision to create 'Healthy Streets' aims to reduce traffic, pollution and noise, create more attractive, accessible and people-friendly streets where everybody can enjoy spending time and being physically active, and ultimately to improve people's health."
Sadiq Khan,
Mayor of London

BOX 2: THE SAFE SYSTEM - A VITAL POLICY FOR CHANGE

The Safe System approach recognises that the current situation, where millions of children risk or lose their lives every day, is the outcome of a mobility system which is not set up to value or protect human life. The system must be reviewed and reoriented based on 5 key principles: that humans make errors; that humans are vulnerable to injury, that responsibility should be shared, that no death or serious injury is acceptable, and that a proactive approach should be taken to create safe mobility systems. These principles are especially pertinent for children, given that they are less able to judge vehicle speeds, have poorer impulse control, are less visible due to height, and have more fragile bodies than adults.

A recent research project led by the Overseas Development Institute and World Resources Institute, in partnership with the FIA Foundation, explored how

three cities, Bogota, Mumbai and Nairobi, make decisions affecting safe and sustainable mobility. A key finding was that road user behaviour is blamed for road traffic collisions, which allows politicians and system designers to avoid responsibility for bad policy, failed highway and street design, and poor traffic management.

So adopting the 'Safe System' approach, which views road safety as a public health issue, rather than one of personal responsibility alone, is vital. By focusing on system design, rather than individual behaviour, the main accountability is shifted back where it belongs: to the planners and their political masters. And it works. Research by the World Resources Institute and the World Bank found that countries that have taken such an approach have been able to reduce fatalities faster and to a greater degree than others.



Tackling road traffic from a public health perspective, Bogota is actively implementing a safe system 'Vision Zero' policy which saw an 8% reduction in traffic fatalities in just one year.



More than half of traffic deaths in Mumbai are pedestrians. Yet road user behaviour, rather than road design and lack of speed management, is still typically blamed by the authorities.



Nairobi has not yet embraced the safe system, and suffers high levels of pedestrian injury. But investment in walking & cycling facilities is now increasing, driven by both a safety and an environmental imperative in a city suffering appalling levels of air pollution.

BOX 3: TOWARDS HEALTHY STREETS - IMPLEMENTING THE SAFE SYSTEM

Cities are increasingly taking the lead in implementing the Safe System approach, as part of a broader public health agenda:

Bogota has recently begun implementing a Vision Zero Safe System, with the first phase targeting speed vaccine street design around schools and hospitals. Early results show that this strategy and other Safe System actions have helped Bogota's road fatalities fall by 8 percent in just one year.

Mexico City is also implementing a Safe System-based road safety strategy, reduced its speed limits and updated its fine system for traffic infractions. Combined with improved street design, this has helped reduce the city's road fatality rate by 14 percent over the past two years. A 'Vision Zero for Youth' pilot scheme is targeting school journeys as a way to build support and momentum.

New York City adopted Vision Zero in 2013 and subsequently enjoyed "the safest three-year period in the City's history, and the first time in over a decade that

traffic fatalities fell for three consecutive years" according to city statistics. The city has taken a data-driven approach to identify and target the highest-risk corridors with integrated engineering, enforcement, and education efforts. Between 2013 and 2016, total fatalities fell by 23 percent and pedestrian deaths fell by 21 percent, and the city has bucked a national trend of rising road traffic fatalities. A programme of re-modelling streets to prioritise pedestrians and to implement cycle lanes, pre-dating the Vision Zero policy, is an important element of the overall success, and creates the conditions for healthy streets.

In Brazil, both São Paulo and Fortaleza have seen traffic fatalities fall as they implement the Safe System. São Paulo's traffic deaths are at their lowest since 1979, while Fortaleza saw a 9% fall between 2016 and 2017. Speed management and street re-design to prioritise and allocate more space to pedestrians have been crucial elements. Cross-cutting benefits are being seen – in Fortaleza the strategy is explicitly linked to increasing children's physical activity.



In Bogota, street redesign and speed control around schools and hospitals is the first phase of a new Vision Zero push.



Mexico City is using a focus on 'Vision Zero for Youth' and support for the #EveryLife child mobility rights agenda to re-invigorate its safe system policies.



New York City's Vision Zero is prioritising pedestrians and cyclists and reducing speed limits.

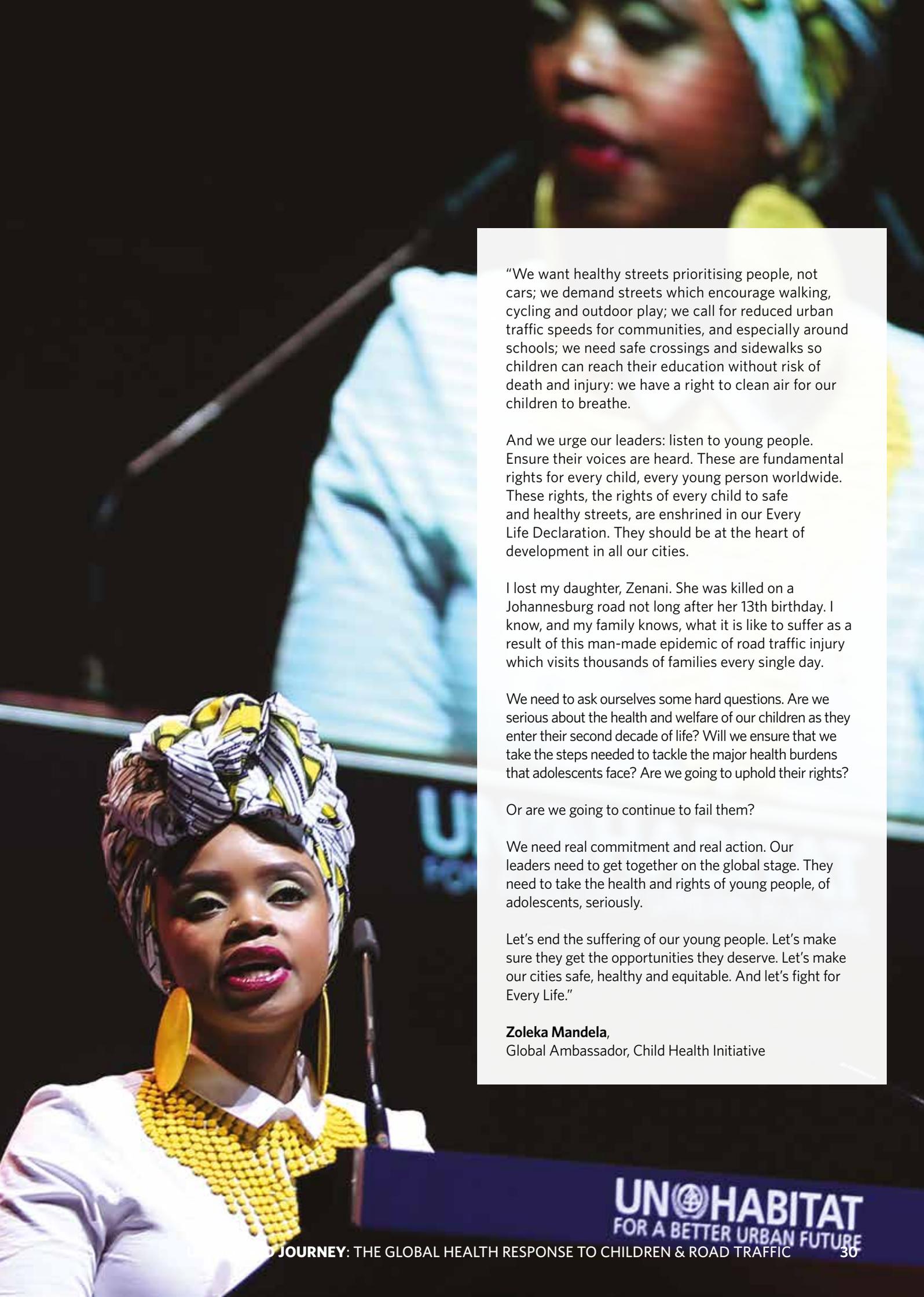


In Sao Paulo, traffic speed reductions and reallocation of road space helped reduce deaths by a third.



Increasing levels of physical activity by children is a key goal of Fortaleza's safe system approach.

Source: World Resources Institute.



"We want healthy streets prioritising people, not cars; we demand streets which encourage walking, cycling and outdoor play; we call for reduced urban traffic speeds for communities, and especially around schools; we need safe crossings and sidewalks so children can reach their education without risk of death and injury: we have a right to clean air for our children to breathe.

And we urge our leaders: listen to young people. Ensure their voices are heard. These are fundamental rights for every child, every young person worldwide. These rights, the rights of every child to safe and healthy streets, are enshrined in our Every Life Declaration. They should be at the heart of development in all our cities.

I lost my daughter, Zenani. She was killed on a Johannesburg road not long after her 13th birthday. I know, and my family knows, what it is like to suffer as a result of this man-made epidemic of road traffic injury which visits thousands of families every single day.

We need to ask ourselves some hard questions. Are we serious about the health and welfare of our children as they enter their second decade of life? Will we ensure that we take the steps needed to tackle the major health burdens that adolescents face? Are we going to uphold their rights?

Or are we going to continue to fail them?

We need real commitment and real action. Our leaders need to get together on the global stage. They need to take the health and rights of young people, of adolescents, seriously.

Let's end the suffering of our young people. Let's make sure they get the opportunities they deserve. Let's make our cities safe, healthy and equitable. And let's fight for Every Life."

Zoleka Mandela,
Global Ambassador, Child Health Initiative

BOX 4: TOWARDS HEALTHY STREETS - DELIVERING THE SPEED VACCINE TO SCHOOLS

Across much of the world pedestrians and cyclists are unprotected. The International Road Assessment Program (iRAP) surveyed nearly 250,000 kilometres of road in 60 countries. It found that more than 80 per cent of roads on which pedestrians were present and traffic flowed at more than 40 km/h had no formal sidewalk, the proportion was more than 90% in sub-Saharan Africa; 88% of roads with cyclists and speeds of more than 40 kilometres an hour lacked separate bicycle facilities.

Children and adolescents are one of the vulnerable groups to use the road. With so little protection provided it is little wonder that more than 3000 children have unfinished journeys every day. Research by AMEND in Tanzania has shown that introducing sidewalks, speed reductions and traffic calmed crossings can reduce serious injuries by at least 25%,

at a cost of around \$20,000 per school. Now they are collaborating with iRAP's Star Rating for Schools protocol to provide transparent measurement of progress.

Here in Lusaka, Zambia, for example, the high speed road outside Justin Kabwe Primary School had seen four serious injuries to schoolchildren. iRAP assessed the school using their new star rating system app; AMEND and the local authority worked together to upgrade the infrastructure. Once the new sidewalks, speed control, speed signs and traffic-calmed crossing were implemented the iRAP rating for the school was transformed from 1 star to 5 star for safety. This is the Speed Vaccine in action. Lusaka officials agreed that they have the funds to implement the Speed Vaccine at every school, they just need technical guidance and political commitment to make it happen.



Pre-vaccine: A neglected low-income neighbourhood experiencing high traffic speed.



For children crossing from their homes to school there was no protection from traffic moving at up to 70km/h: no sidewalk, speed signs, traffic calming or safe crossing points.



Vaccine implemented: after design changes, including speed humps, traffic speeds have been reduced to below 30km/h.



The Speed Vaccine has transformed the route's safety protection from 1 to 5 stars.

Star Rating for Schools is a new global partnership of those interested in improving the safety of children and ultimately delivering 3-star or better pedestrian journeys to, from and around schools.

Currently nine Lead NGO Partners are working with iRAP to pilot the tool including AIP Foundation, AMEND, Federation Internationale de L'Automobile (FIA), Gonzalo Rodriguez Foundation, Global Alliance of NGOs for Road Safety, Global Road Safety Partnership, Safe Kids Worldwide, Youth for Road Safety (YOURS) and the World Resources Institute (WRI). They are the first point of contact for those seeking to undertake the Star Rating of roads around a school.

Data have already been collected for 100+ schools across five continents including trials in the USA, Vietnam, Uruguay, Jamaica, Argentina, South Africa, Mexico, Kenya and the Philippines. Data generated by the tool are valuable for school managers, local and state government agencies, donors and NGOs working to ensure walkability around schools and in their communities.

Star rating surveys in Montevideo, Uruguay, for example, showed that children in lower income areas of the city are less protected than their better-off counterparts. In March 2018 local NGO Gonzalo Rodriguez Foundation organised a press conference with the mayor to promote the results and discuss the policy response.



iRAP's Star Rating for Schools app generates data identifying dangerous street design and inappropriate speed limits on routes to school.



In Montevideo the data was analysed to provide safety assessments which mapped the relative safety for children in different parts of the city. iRAP also proposed countermeasures.



Local NGO Gonzalo Rodriguez Foundation and the city authorities held a press conference to highlight the results of the star rating assessment.



Montevideo's mayor taking questions from the media: Star Rating democratises data, offering both a powerful advocacy tool and the solutions to deliver the Speed Vaccine.

THIS IS MY STREET



Forced to the edge by traffic, bloodied, bruised and worse; kept indoors, fattened up on sugary food and video games; poisoned and choked by dirty air. Living unhealthy lives because healthy traffic circulation is the prevailing public policy priority: this is the reality for hundreds of millions of children and adolescents today, and it is a scandal and it is an injustice.

But these are their streets too. And the kids are demanding change.

The Child Health Initiative was launched in 2016 to give voice to these demands, because nobody in the corridors of power was fighting for children's mobility rights. The issues we've raised in this paper just weren't being addressed. Over the past two years we've listened to children and young adults, meeting them in their streets and their schools, working with

them to develop new advocacy tools to demand safe streets and clean air.

We've fostered collaboration on child-focused design with some of the major urban design agencies and NGOs; and helped build capacity on road safety within some of the world's leading child rights organisations. We've road-tested the speed vaccine in many locations, and supported the development of a new public health performance app for street design, the International Road Assessment Programme's 'Star Rating for Schools'. We've started the new 'TRUE emissions' initiative to gather and communicate transparent data about real vehicle emissions in urban areas. We've supported the launch of a new UN Road Safety Trust Fund, to catalyse action. And we've published the '#EveryLife Declaration', six basic mobility rights that every child should enjoy, endorsed by a growing coalition of mayors and NGOs.





For every step taken by one of our partners, a hundred other steps forward are also being taken by other coalitions and communities across the world: the movement for healthy streets is growing, and we will overcome. But, as this paper has identified, progress could be dramatically accelerated if the health rights of children, that are being abrogated by traffic, were properly addressed by the international health and development policy institutions, and substantively included within the Every Woman, Every Child strategy and the response to climate change.

So to promote a more inclusive and effective agenda, we are calling for an **action-oriented, UN-sponsored, Global Commission on traffic-related child & adolescent health**, to review how a range of known transportation and urban planning interventions can connect to and improve health outcomes for young people. This Commission, with a remit to report quickly and with brevity, could explore ways to strengthen these linkages within the Every Woman, Every Child strategic delivery agenda; to integrate action within the new WHO/UN Environment collaborative initiative on health, environment and climate change; and to make recommendations for dramatically upscaling action and access to funding. Ideally, the Commission would report to the UN Secretary General and the EWEC High-Level Steering Group at the earliest opportunity.

There has been progress in developing global road safety architecture, collaboration, mandate for action

and capacity to deliver. But this momentum could be squandered if there is uncertainty about the destination. We are also recommending an **urgent commitment to extending the SDG road traffic injury target 3.6 deadline to 2030**, in line with the vast majority of other SDG targets, as a more realistic and practical timeline for achieving a 50% reduction in global road traffic fatalities. The UN should begin the process now with a view to ratifying the extension by early 2020.

Linked to the global target, there needs to be a more concerted effort to ensure governments are following up fine words with equally commendable action. There needs to be encouragement and pressure, of the kind that the EWEC framework is best able to provide, to **secure measurable and public commitments by governments to achieve the WHO 2030 Voluntary Road Safety Targets**, which provide a focus for cost-effective, achievable action to save lives. Some or all of these targets could be integrated into the EWEC strategic framework, with implementation guided by WHO's Save LIVES package.¹³⁷ Progress could then be measured against these targets and indicators in delivering funded programming to provide the Safe System for children. As a priority we would argue for an emphasis on speed management, the 'speed vaccine', to eliminate death-speed traffic (above 30km/h) from neighbourhood streets.

To assist this effort, it is essential and urgent that there is **significant donor support for the newly established UN Global Road Safety Trust Fund**. If we can avoid



silo-think it has the potential to play a valuable role as an expert strategic delivery mechanism for child & adolescent health in the Every Woman, Every Child strategy, in close liaison and partnership with the EWEC Global Financing Facility.

The increasing attention within the international health community to air quality is welcome. The close working partnership on air pollution between WHO and UN Environment, and the first WHO Global Conference on Air Pollution and Health¹³⁸, to be held later in 2018, are important steps. But these must be translated into action. We need to see **measurable and public commitments by governments and cities to bring air pollution below WHO's recommended minimum safe levels, as well as an urgent global review of the air quality levels that are actually safe for children**, given their particular vulnerabilities. Again, closer integration with the EWEC strategic plan will give these efforts a boost and help to further align environmental and public health actors and agendas.

Finally, to consider the recommendations of the Global Commission on traffic-related child & adolescent health, and to connect these issues with other child and adolescent health priorities (including, for example, pneumonia, NCDs, and mental health) we call for a **high-level UN Special Summit to address emerging child & adolescent health issues and provide political endorsement for coordinated fast-track action**. This summit could complement, but should not displace, the heads of government-level meeting on road safety

proposed by the UN General Assembly in its 2018 resolution on Improving Global Road Safety.¹³⁹ This is a welcome and important objective, which - together with the forthcoming 2020 global ministerial meeting on road safety in Stockholm, Sweden - could do much to continue the momentum for road traffic injury prevention. But, we would argue, the holistic needs of children and adolescents require separate consideration, and a special summit can bind and build on decisions taken in other top level meetings, for example the 3rd High Level Meeting on NCDs taking place later this year and the initiative, led by the Argentine government, to include childhood obesity as an action priority for the G20. The particular health issues facing adolescents have never been the subject of a high level summit, and so a focus on policies to address the causes of adolescent health burdens is overdue and urgent.

In whatever form the talking takes place, the focus must be on action. Wherever possible this action should involve integrating with and enhancing existing frameworks - such as EWEC - rather than inventing new ones in parallel. And we believe that one important outcome of the summit, encompassing all the main health issues we have highlighted in this paper, must be a focus on the specific objective, as prioritised by governments in the New Urban Agenda in 2016, to ensure that every child has a safe and healthy journey to school by 2030.

It is way beyond time to walk the talk. Our children and young people deserve, and expect, nothing less.

THESE ARE OUR STREETS TOO





Nneka was fourteen when she was hit by a car while walking to school in Kingston, Jamaica. A talented netball player, she lost her leg in the crash. Nneka has lent her voice to the global call for action, and met the Prime Minister of Jamaica to urge him to tackle speeding traffic.



Nairobi schoolgirl Purity, aged twelve, suffers from asthma and has to take daily medication. She walks for more than an hour to school every day. "When the cars are passing they leave the black smoke and I breathe it in and it affects my lungs and I start coughing."



Five year old Ezequiel from Uruguay was left orphaned and paraplegic after a motorcycle crash. Ezequiel's parents died, leaving him as the only survivor, with head trauma, severe chest trauma, rib fractures, and a serious lung injury. He is now cared for by his Aunt and Uncle.



Daniel is nine and lives in London. His walk to school takes him along the congested Old Kent Road. "London is having a bad time right now with air pollution", he says. "Diesel cars are making this happen. The government needs to stop the air from being polluted."



Chrisviane was buying ice cream with a friend after school when he was hit by a taxi. The seven year old, from Côte d'Ivoire, missed two months of schooling because of his serious leg injury. Fortunately the driver assisted with medical costs – too often poor parents are left in appalling debt.



Seventeen year old Ngoc was knocked off his electric bicycle in Vietnam and suffered a serious head injury. Doctors feared he would be left in a vegetative state, yet he is slowly recovering day by day. But his education is on hold and his family has taken loans to pay the massive bills for his care.

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Jamaica's two-time Olympic champion Shelly-Ann Fraser-Pryce (right) visiting her former school to campaign with UNICEF for the #EveryLife child mobility rights agenda.



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