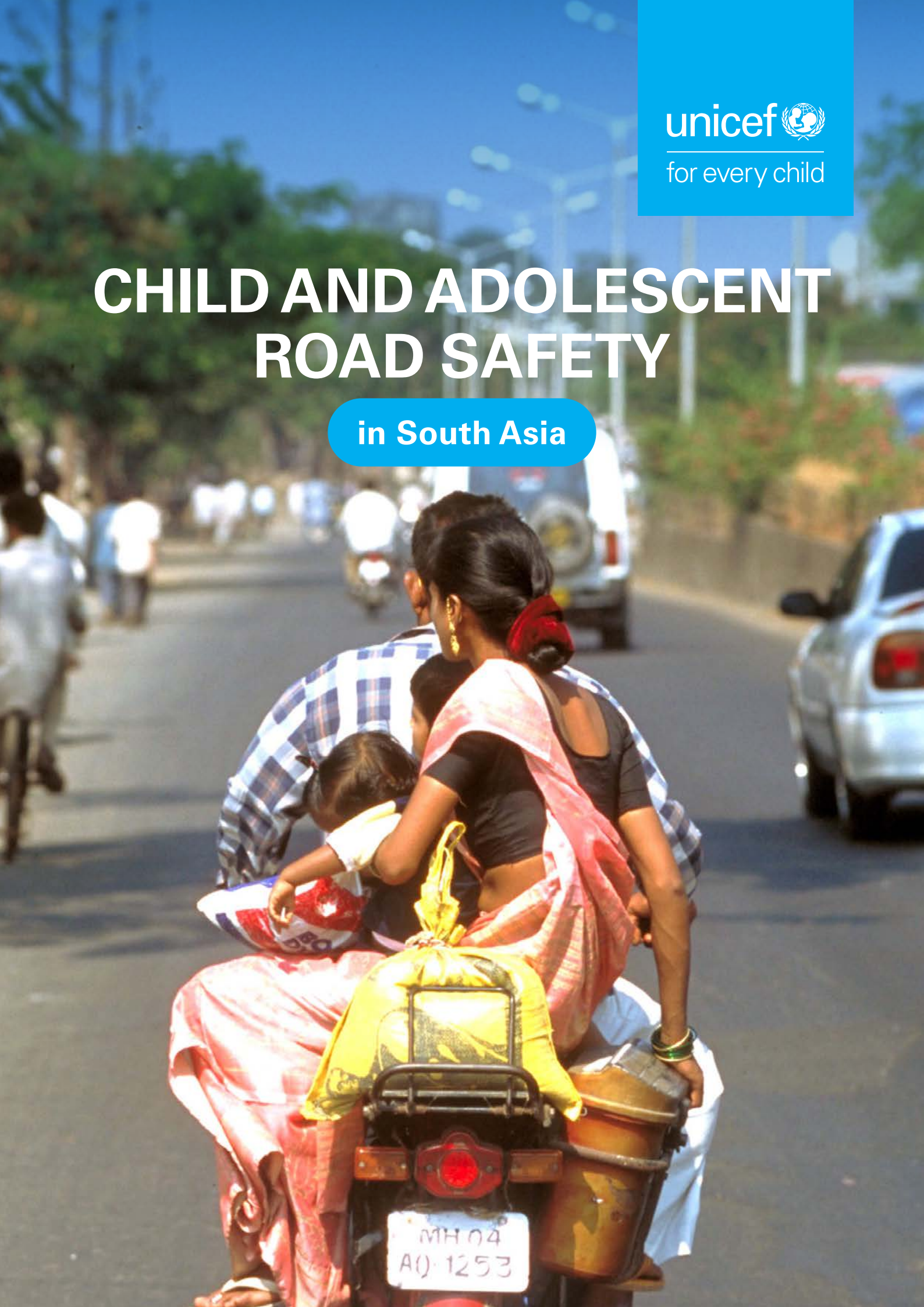


CHILD AND ADOLESCENT ROAD SAFETY

in South Asia



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Child and adolescent road safety in South Asia

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Abbreviations and acronyms

DALY	Disability-Adjusted Life Years
GBD	Global Burden of Disease
GDP	Gross Domestic Product
GNI	Gross National Income
LMIC	Lower-Middle-Income Country
RTI	Road Traffic Injury
SDGs	Sustainable Development Goals
UN	United Nations
UNICEF	United Nations Children's Fund
WHO	World Health Organization
YLD	Years Lived with a Disability
YLL	Years of Life Lost



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1. Introduction

The 2018 WHO Global Status Report on Road Safety called for a ‘shift in the current child health agenda, which has largely neglected road safety’ (1). The call for this shift is not new, having been a central theme of the 2008 ‘World report on child injury prevention’ (2), but the burden of road trauma on the lives of children and their families continues to be huge. Road traffic injuries are a leading cause of death to children and young people worldwide (3).

A road traffic injury is defined as a fatal or non-fatal injury due to a road traffic crash, collision or incident resulting in an injury, occurring on a public road and involving at least one moving vehicle (4). Road traffic injuries may occur to any road user including pedestrians, pedal cyclists or passengers or drivers of a motorized vehicle.



The recently released UNICEF report, [Technical Guidance: Child and Adolescent Road Safety \(2022\)](#), addresses the road safety risks and intervention strategies for children and young people under the age of 20 years (5). It notes that road traffic deaths and disabilities to children are particularly devastating to the impacted families, and costly to communities because of the vulnerability of children and the years of healthy life lost in the face of the known preventability of these injuries.

The report highlights that low-income and lower-middle income countries experience 78 per cent of the child road traffic injuries. High-income countries, having well-implemented and continually improving child road safety measures, experience only 3 per cent of the global burden of road traffic injuries to this age group. The guidance package is an important adjunct resource to this report, providing summaries of what is known about effective areas for action under the Safe Systems framework as it pertains to child and adolescent road injuries.

This report is intended to provide relevant information about the burden, risk factors and interventions to address road traffic injuries among children and adolescents in the region. The target audience includes UNICEF staff in country and regional offices, country level road safety and public health practitioners, policy makers, advocates and academics.



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2. Why road traffic collisions need to be addressed

As the world struggles to address multiple global health issues, it is possible to overlook the causes of death and disability that might be considered endemic. Road traffic injuries (RTIs) have been a leading cause of death of children over the age of one for many decades, but we are now equipped with ample evidence to reduce this preventable cause of death and disability.

Prioritizing child and adolescent road safety recognizes:

- **Children have the right to a safe environment.** UNICEF's Strategic Plan, 2022–2025 reflects its commitment to upholding the United Nations (UN) Convention on the Rights of the Child, which specifies the fundamental right of children to a safe environment, free from injury and violence (6). It also states that children have the right to the highest attainable level of health and that it is a responsibility of society to protect children and provide them with appropriate support and services (7).

2. Why road traffic collisions need to be addressed

- **Children are especially vulnerable to road traffic injuries.** Because of their stage of cognitive development, physical size, and the vulnerabilities of their smaller and growing bodies, children are particularly vulnerable to being injured. Traffic hazards to children and adolescents stem from vehicles and road environments designed by adults for adults. Child pedestrians are less likely than adults to be seen from the driver's seat; younger children, particularly, are less likely to be fully aware of the dangers or be able to judge the speed and distance of an approaching vehicle; as pedal cyclists and novice drivers or riders, their skills are less developed; and particularly as adolescents, they may engage in risk-taking as part of their path to independence (8). For all these reasons, [WHO's Ten Strategies to Keep Children Safe on the Road](#) encourage adults as road users, vehicle designers and road and urban planners to fully and continually consider the vulnerabilities of children to road traffic injuries.
- **There are huge unmet social and economic benefits to countries that are currently over-represented in these tragic statistics.** A recent Lancet Commission on adolescent health (9) argues that a focus of health and well-being planning that includes adolescents will assist in reducing economic gaps between low- and high-income countries. Road traffic injuries place enormous barriers for impacted young people (and often their family, due to caring responsibilities and other emotional costs) on opportunities for education, employment, housing and social engagement. Because of their typically robust health status, adolescents have often been overlooked in health planning, however, prioritizing adolescent road safety recognizes the importance of enabling young people to optimally meet the future challenges of employment, parenthood, and financial independence (9).
- **There is value in adopting a life-course approach to health.** UNICEF takes a life-course approach to adolescent development and participation, identifying critical risks and opportunities that have implications for the realization of children's rights, from the first decade through second. The importance of adolescent health to life-course is also the impetus behind the 2019 WHO manual, [Accelerated Action for the Health of Adolescents \(AA-HA!\)](#) (10). This manual provides worked examples of investments in adolescent health, by way of multi-sectoral national strategies, that provide immediate health and socio-economic benefits for adolescents, as well as for their future adult lives. Module 9 of this manual sets out interventions to prevent and mitigate road traffic injuries among adolescents.
- **Road trauma prevention addresses UN Sustainable Development Goals (SDGs).** The 17 SDGs released in 2015 and adopted by all UN member states include two important directives on road safety:
 - by 2030, halve the number of global deaths and injuries from road traffic accidents (SDG target 3.6), and
 - by 2030, provide safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons (SDG target 11.2).

UNICEF's Strategic Plan, 2022–2025 (6), provides a global framework for the attainment of the Sustainable Development Goals (SDGs) for children.

Global attention and resources for regional action on child and adolescent road safety

Global Plan: Decade of Action for Road Safety 2021–2030. Action on the SDGs has been highlighted within the UN’s sentinel global road safety document, within an urgent call for action by all countries in a global partnership (3). Strategies such as reducing the number of vehicles on the road, the speed of vehicles, and urban planning to address equity while encouraging physical activity will ensure a reduction in road trauma while simultaneously addressing poverty and achieving greater environmental sustainability (11).

UNICEF Technical Guidance for road safety. Provides an overview of the burden and impact of child and adolescent road traffic injuries and fatalities and explains the risk factors involved. Section 4 of this document provides further details on strategies that work, or are promising, or those that do not. Combining this information with the suggested steps to implementing good practice (Section 5) and tools and resources (Section 6) provides local planners with a useful resource for action (5).

WHO’s SaveLIVES package of road safety interventions is a valuable resource for all-ages road safety strategic planning (12). SaveLIVES provides an evidence-based inventory of priority interventions to be implemented towards achieving the SDG targets. Strategies and approaches that apply specifically to children are located on pages 42–43.

Our future: A Lancet commission on adolescent health and wellbeing is the result of a Lancet global collaborative effort to highlight the importance of addressing adolescent health in the current global climate. It highlights the need for, and strategies on how to adopt, collaborative and multi-pronged strategies that take a life-course approach to health (9).

WHO’s AA-HA! guide for governments to develop national health strategies and plans for adolescents identifies road traffic injuries as an important issue to address (10). Developed with input from young people and global partners in health, the document provides direction for governments on how to evaluate their country’s adolescent health needs before developing their adolescent health programmes, strategies and plans. It outlines how workshops with intersectoral representation can be managed to meet each country’s own needs in the process of developing a national strategy. Case studies, tools and resources, alongside suggested steps to undertake, make this a useful resource in strategic planning.

Technical Working Group on Adolescent Health and Well-being. The United Nations and many global partners (including UNICEF, UNESCO, World Bank and WHO) have formed a technical working group to advance the adolescent well-being framework in policies and programmes at country and regional levels. There are major opportunities to increase recognition of road safety as an important component of adolescent health and well-being at the [Global Forum for Adolescents](#) in 2023.



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3. What puts children and adolescents more at risk?

Children and adolescents are more vulnerable to road traffic injuries than adults for a range of reasons. These reasons, or risk factors, can be classified as being non-modifiable or modifiable. In addition, there are post-crash factors that place children at elevated risk of preventable serious injury or death in the event of being involved in road traffic crash.

3.1 Non-modifiable risk factors

These include a child's age, sex, size, gender, developmental stage in terms of limitations in their cognition and attention, as well as limitations of their vision and hearing (13). A child's smaller size, for example, means children on or near roads are less likely to be seen by other road users. Their reduced levels of concentration or cognitive capacity to judge speed and distance, combined with greater impulsivity, means they may be more likely to be in the path of other road users with little warning (13). These non-modifiable risk factors mean that adopting a Safe Systems approach is essential to keep children safe on the road, knowing that road use errors are to be expected with this age group.

Figure 1: Modifiable and non-modifiable risk factors for road traffic injuries among children and adolescents

NON-MODIFIABLE RISK FACTORS			MODIFIABLE RISK FACTORS		
Age	Sex	Size	Risk taking	Lack experience	Peer pressure
Young children do not use the road nor react to traffic situations in the same way as adults.	As children get older, more boys are involved in road traffic collisions than girls.	A child is difficult to see in traffic because of their stature. Likewise, they have difficulty seeing above the surrounding vehicles and infrastructure.	As they get older, adolescents begin to take more risks or seek out new experiences, for example alcohol and substance use. This is more common among boys than girls.	Inexperience, particularly among novice drivers, increases the risk of a crash occurring.	Peers are the most important people in the lives of teenagers. They are often led by what is considered "cool", not necessarily what is safe.
Cognition	Development		No safety equipment	Poor infrastructure	Unsafe vehicles
Young children find road traffic situations extremely complex to navigate.	Their developmental immaturity and inability to assess risks places children at higher risk of road traffic crashes. Their concentration span is also much shorter and they have difficulty focusing on more than one issue at a time.		Not wearing helmets or using child restraints or seat-belts places children at greater risk of injuries in the event of a collision.	Lack of separate lanes for walking and cycling results in vulnerable children mingling with heavy vehicles.	Vehicles without safety features such as seat-belts, ISOFIX or pedestrian crumple zones place children and adolescents at greater risk of sustaining injuries in the event of a crash.
Hearing and seeing			Lack of knowledge	Inadequate post-crash response	
Young children have difficulty discerning what direction a sound is coming from. Likewise, they have difficulty judging distances between themselves and other vehicles when both are in motion.			All children need to be taught the basic laws and rules of the road, how to behave in traffic and what risks to avoid.	Countries that do not have the appropriate prehospital, hospital and rehabilitative facilities designed for children place them at greater risk of negative outcomes.	

3.2 Modifiable risk factors

These include risk taking, peer influence, and inexperience in road user skills whether they be young children safely crossing the road or learning to ride a bicycle, or adolescents and young adults as learner riders or drivers (13). Such risk factors can be modified through evidence-based interventions that increase knowledge, skills and awareness of consequences. Behaviours such as the non-use of restraints and helmets, speeding and distracted driving (for teenagers) place young people at elevated risk of road trauma. Environmental risk factors include poor infrastructure (such as the absence of sidewalks, or safe areas to cross the road) or tolerance of unsafe speeds of vehicles around schools and other areas frequented by children and adolescents. Vehicle-related risk factors specific to children include lack of ISOFIX for child restraints, motor vehicle bumper bars made of unforgiving materials, or limited rear vision on motor vehicles for seeing smaller objects. Such risk factors can be modified through a combination of education, laws and their enforcement, building of safer road infrastructure and making safer vehicles more readily available (5).

Post-crash response risk factors for serious injury outcomes include a lack of child-friendly equipment within emergency vehicles and hospitals, suitably trained personnel to manage the unique biological and emotional vulnerabilities of injured children.



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4. What are good practices?

It is recommended that strategic planning for child and adolescent road safety follow three principles of best practice: Adopt a Safe Systems approach, employ evidence-based child-specific strategies (alongside evidence-based all ages strategies), and include cost-effective interventions where possible. These principles are outlined below – and further details can be found in the documents listed in the section, ‘Global attention and resources for regional action on child and adolescent road safety.’

4.1 Safe Systems Approach

Early road safety efforts focused on influencing road user behaviour, however as the reductions in road trauma began levelling out, it was recognized that people will continue to make errors and remain vulnerable to the hazards in the road environment (14). Within the last two decades there has been a shift, adopted around the world, to a more holistic approach, the Safe Systems approach, (15) with greater safety outcomes for many countries (16). This approach recognizes that road users make errors, which lead to crashes, collisions or incidents resulting in an injury (Figure 2). By addressing the system within which the road user operates, it serves to provide an environment that is more 'forgiving' of these errors and the vulnerabilities of the human body. The pillars of the Safe Systems approach are the provision of: safe roads; safe vehicles; safe speeds; safe road users; road safety management; and effective post-crash care. (16) The adoption of a Safe Systems approach holds the potential of being able to eliminate serious crashes (if the system can be truly safe) and the adoption by some countries, beginning with Sweden, of 'Vision Zero'. This ambitious target, no fatal or serious road injuries, rests on adequate commitment, funding and design of all the components of the Safe System (15).

4.2 Evidence-based child specific strategies

The UNICEF Technical Guidance for Child and Adolescent Road Safety, The WHO/UNICEF World Report on Child Injury Prevention (2), the WHO/World Bank World Report on Road Traffic Injury Prevention (4) and the WHO report, Ten Strategies for Keeping Children Safe on the Road (8) identify effective strategies for reducing road trauma to all age groups and specific strategies targeting children and young people. These reports identify evidence-based strategies that have been particularly effective in reducing child road trauma, including: child restraint systems for the safety of child passengers in motor vehicles; helmets for child pedal cyclists as well as child passengers and operators of motorized two- and three-wheeled vehicles; graduated drivers' licensing programmes requiring additional limits on speed, passengers, and blood alcohol levels for newly licensed drivers, and reduced speed limits around schools, and child play areas.

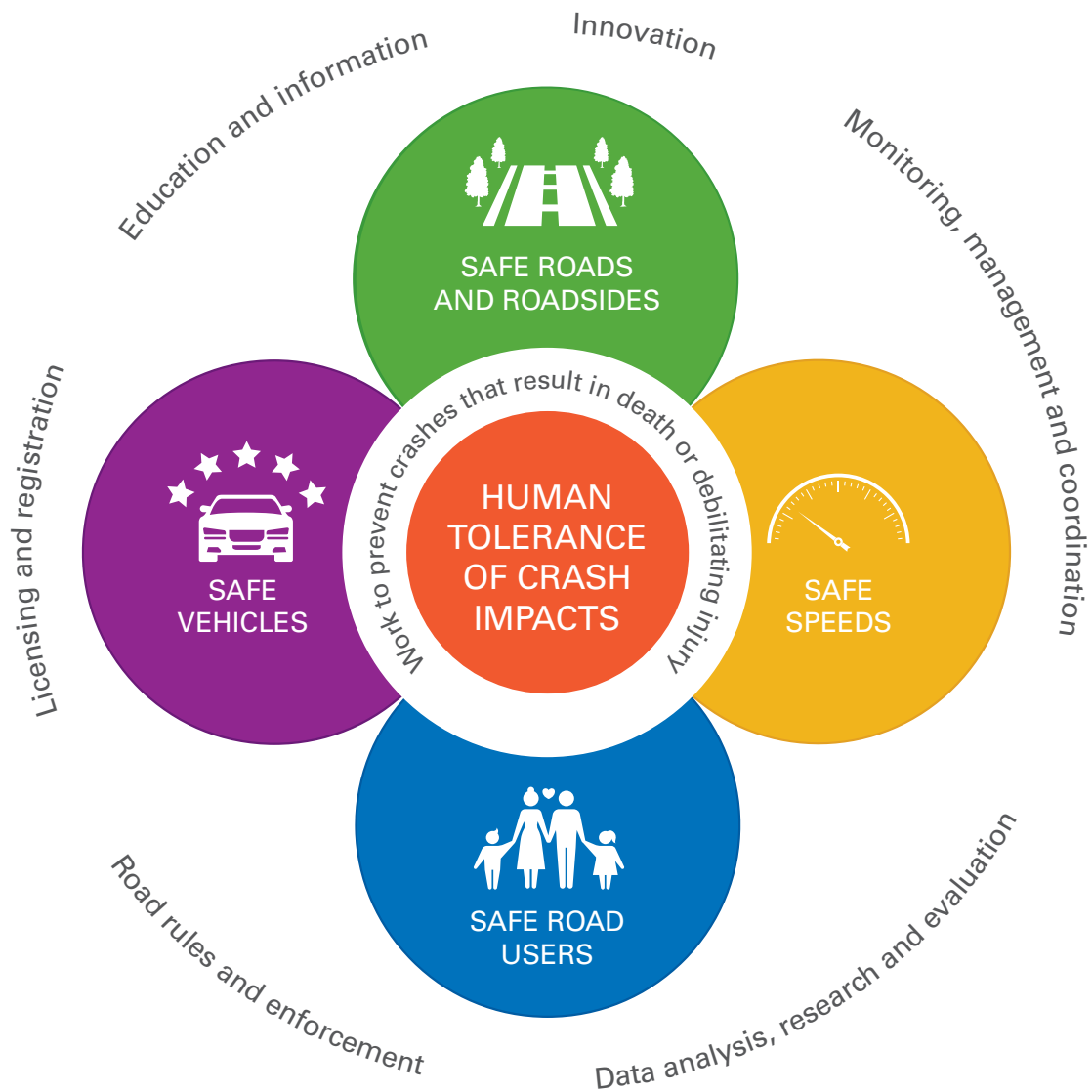
4.3 Cost-effective interventions

The economic returns from road safety interventions for children and adolescents are particularly important for LMICs. Investment in road safety will not only enable adolescents full life potential in resource-poor settings, but will also generate high economic and social returns, including reduced costs such as health care services and loss of employment by parents needing to take-on carer roles (17, 18). However, there are huge gaps in cost-effectiveness research in road trauma countermeasures in LMICs, particularly in child road safety interventions. The Lancet, however, published one robust study that projected the economic and social benefits of the avoidance of deaths and serious injury caused by road accidents to young people. Implementing a combination of seven known effective interventions was projected to be highly cost effective across the 75 LMICs included, with benefit cost ratio (BCR) of 5:9 (19).

4.4 Available evidence on child- and adolescent-specific road safety strategies

Using the Safe Systems framework, the table below provides a summary of strategies assessed for their effectiveness in reducing road trauma to children and young people. It is important to note that these strategies, while mostly evaluated separately, are optimally used in combination with each other as well alongside the strategies, for which there is ample strong evidence, that are effective in reducing road traffic injuries for all ages.

Figure 2: The Safe Systems Approach to road safety



4.4.1 Safe road users

Most good practices fall into this “pillar” of road safety, with laws and the enforcement of laws being the most effective. **Awareness raising and education** tend to be the glue that binds all behavioural and other interventions together. Standalone education programmes, particularly those without any practical components, have not been found to reduce road traffic injuries or deaths although they may change knowledge and/or attitudes, but these are usually short term.

Table 1a: Evidence-based strategies that specifically reduce serious and fatal injuries to children and adolescents: Safe road users

	Effective	Promising	Insufficient evidence	Ineffective or harmful	Reference(s)
Child restraints					
Setting laws that require age-appropriate restraints for children travelling in motor vehicles	×				(20–23)
Requiring children to sit in the rear passenger seats	×				(24–26)
Promoting the use of appropriate child restraints for infants and children	×				(27–29)
Increasing accessibility to child restraints, including cost subsidization or borrowing schemes		×			(30, 31)
Bicycle helmets					
Promoting bicycle helmet use through community campaigns, subsidization or give-away programmes		×			(32)
Motorcycle helmets					
Setting laws that mandate helmets for ALL riders of 2- and 3-wheelers on all roads and all engine sizes	×				(33–35)
Graduated drivers licensing systems					
Supervising driving practice (many hours) for novice drivers	×				(36, 37)
Setting laws that restrict maximum speeds, night-time passenger numbers and require zero blood alcohol limits on novice and newly licensed drivers	×				(13, 38, 39)
Mobile phone laws					
Setting laws that restrict the use of mobile phones by novice drivers			×		(40–42)

Table 1a: Evidence-based strategies that specifically reduce serious and fatal injuries to children and adolescents: Safe road users (continued)

	Effective	Promising	Insufficient evidence	Ineffective or harmful	Reference(s)
Post-license driver and rider education					
Providing advanced driving or riding skills for young drivers				×	(43)
Awareness and skills					
Providing practical road safety education to children from about 4–5 years of age, and throughout primary and secondary school, using parent and peer training.		×			(44)
Promoting safe road user behaviour to adolescents through short education programmes (particularly with booster sessions)			×		(27)
Running campaigns directed at adolescents regarding alcohol awareness and limiting availability; designated driver and planning getting home from social events.			×		(45)
Educating cyclists, riders and passengers on 2- and 3-wheelers about the need to wear helmets and white/light-coloured clothing.			×		(35, 46)
Promoting white or light-coloured clothing for visibility; reflective strips on clothing or articles like backpacks; walking in good lighting; and walking facing oncoming traffic to reduce injury		×			(47)

4. What are good practices?

4.4.2 Safe roads

Improving road infrastructure through the provision of sidewalks, safe crossings, traffic calming measures, speed bumps, etc. should be a priority for protecting children on their journeys to and from school. The environment around schools should be optimized to prioritize walking and cycling as part of both road safety and child health policies. In particular, the infrastructure should encourage slower speed zones around schools.

As roads are designed and built, they should take into consideration the needs and constraints that children and adolescents face in traffic. [Designing streets for kids](#) is a useful resource which highlights the strategies, programmes, and policies that cities around the world have used to design spaces that enable children of all ages and abilities to utilize cities' streets (48). The guide makes design recommendations and highlights case studies that encourage streets to be safe, enjoyable, and inspirational for children and their caregivers.

Table 1b: Evidence-based strategies that specifically reduce serious and fatal injuries to children and adolescents: Safe roads

	Effective	Promising	Insufficient evidence	Ineffective or harmful	Reference(s)
Separating traffic					
Separating pedestrians and cyclists – sidewalks and cycle lanes	×				(12)
Traffic calming to reduce speeds					
Installing safe pedestrian crossings, chicanes, speed humps, tactical urbanism and other environmental design features	×				(12, 21)

4.4.3 Safe speeds

Low-speed zones around schools have proved effective in protecting children and reducing road traffic injury in both high- and low-income settings (49, 50). Speed reduction can involve changes in road design as well as enforcing reduced speed limits to enable child pedestrians, cyclists and motorcyclists to travel to and from school safely.

Table 1c: Evidence-based strategies that specifically reduce serious and fatal injuries to children and adolescents: Safe speeds

	Effective	Promising	Insufficient evidence	Ineffective or harmful	Reference(s)
Setting and enforcing a maximum speed limit of 30 km/hr on roads with high concentrations of pedestrians, e.g., schools	×				(49, 50)

4.4.4 Safe vehicles

The UN minimum safety regulations should be applied to all new vehicles in order to improve vehicle safety for child passengers. These include measures such as ISOFIX child restraint anchorage points. In addition, New Car Assessment Programs at a country or regional level can promote consumer awareness and demand for higher standards of safety for all car occupants including children.

Table 1d: Evidence-based strategies that specifically reduce serious and fatal injuries to children and adolescents: Safe vehicles

	Effective	Promising	Insufficient evidence	Ineffective or harmful	Reference(s)
Airbags					
Prohibiting children (under 12) from sitting where they may be in the path of airbag deployment				x	(25)
Child restraint anchorage points					
Encouraging new vehicle designs to incorporate measures such as ISOFIX child restraint anchorage points	x				
Promoting consumer awareness and demand for higher standards of safety for all car occupants including children through New Car Assessment Program		x			(12)
Vehicle design for pedestrian safety					
Designing vehicle fronts to minimize injuries to pedestrians		x			(51)

4.4.5 Post-crash response

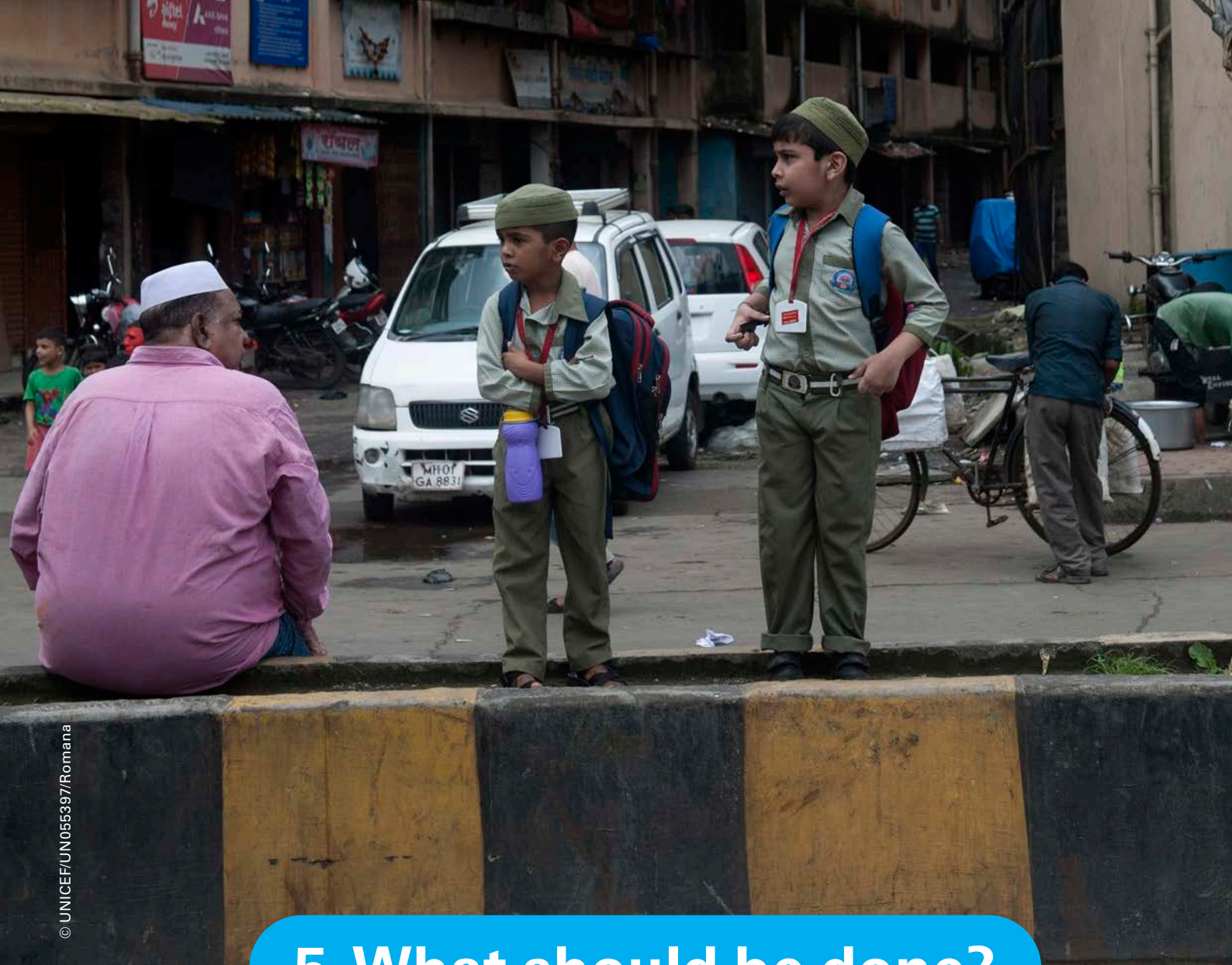
Primary prevention is the best approach to reducing child road traffic injuries, disabilities and deaths. However, there will still be children who require attention following a crash. Children are not “little adults” – their physiology is different and so what may be normal for an adult may not apply for a child. Therefore, all points of post-crash trauma should have child-specific elements, including equipment, and training that includes managing the physical and emotional state of children who have been injured in a crash.

In addition, rigorous monitoring and evaluation of cases and interventions should be put in place.

Table 1e: Evidence-based strategies that specifically reduce serious and fatal injuries to children and adolescents: Post-crash response

	Effective	Promising	Insufficient evidence	Ineffective or harmful	Reference(s)
Paediatric-specific trauma response and rehabilitation services					
Promoting first-aid skills among potential first responders in the community including teachers, police, fire-fighters, professional drivers, school transport drivers, as well as children	×				(12)
Equipping emergency vehicles with equipment designed for use on children	×				(45)
Training personnel on the different responses of children to trauma	×				(45)
Providing child-focused hospital trauma care services		×			(13)
Child-specific data systems					
Monitoring child road traffic injuries and deaths that enables the identification of high-risk traffic areas and road user groups	×				(12, 52)
Evaluating the impact of interventions through both quantitative and qualitative data collection methods	×				(52)

Note: Details of these interventions, in the tables above, can be found in [UNICEF Technical Guide for road safety, Ten strategies to keep kids safe in traffic \(8\)](#) and the WHO Save LIVES package (12).



5. What should be done?

In order to reduce road traffic injuries and deaths among children in the nations of South Asia, road safety decision-makers and practitioners should agree a strategic approach that will optimize lives saved while simultaneously addressing practical considerations, costs and local policy and planning contexts. Countries should therefore understand:

- The current situation – where are you now regarding child road traffic injuries and deaths;
- Establish where you want to be in five or ten years' time through the formulation of an achievable goal with specific objectives and indicators;
- The funding situation – who pays for what – and how any modifications be sustainable;
- Who should be involved; and
- How success will be measured.

A successful child road safety programme would involve biofeedback, as shown in Figure 3, that involves all key stakeholders.

Figure 3: Road safety implementation cycle



5.1 Assess the situation

Before undertaking any activities to reduce road traffic collisions and injuries among children a full assessment of the situation as well as capacity should be undertaken. There are multiple tools that can be used to assess the situation including:

- The [SaveLIVES](#) assessment tool, see Table A1 on pages 52–56;
- The [World Bank's](#) assessment tools; and
- The [EASST school zone](#) assessment report template, see page 34.

Unfortunately, few of these tools are tailored to assess the situation and programs that address the specific needs of children and adolescents.

One assessment tool, has however, been designed to assess the infrastructure around schools where most children spend up to 8 hours of their lives each day. This assessment tool, called the [Star Rating for School](#) app is an evidence-based tool for measuring, managing and communicating the risk children are exposed to on a journey to and from school. It supports quick interventions that save lives and prevent serious injuries from day one. The app can be used to:

- Measure the safety of roads around schools before and after infrastructure improvements;
- Provide an evidence-based rating of road safety – ratings range from 1 to 5 stars where 1-star is the least safe and 5-star is the safest.
- Support education campaigns for students, drivers and the wider community for safe travel around schools; and
- Guide decision-makers in prioritizing road upgrades around schools by assessing different options.

How to combine school safety assessments with other assessment tools that are synchronized with planning cycles to ensure recommendations are incorporated into school improvements should be further explored.

CASE STUDY 1

Improving road safety around schools in high-risk locations in India

The Government of Haryana, MG Motor and TRAX – a road safety non-governmental organization (NGO) based in India – are working together to improve the safety around high-risk schools in Delhi, Faridabad and Gurugram in India. They are putting in place low-cost infrastructural upgrades and conducting research and training which involves schoolteachers, students and the community.

They have used the [Star Ratings for School](#) app to assess the road infrastructure around selected schools in all three locations. The ratings before were 2 Stars at most schools. Together, with the appropriate government departments, they made low-cost changes including speed limit signage, school zone warnings, sidewalk improvements and fencing, and pedestrian crossings. These actions helped raise the Star Rating at the targeted schools to a minimum of 3 Stars. These small improvements have the potential to save many children's lives.

This project is part of the [Child Health Initiative](#) of which UNICEF is a founding member. This initiative promotes a toolkit to support and enable the delivery of interventions for a 'safe and healthy journey to school'.



To date, 83 schools across 260 locations in India have had Star Ratings for Schools (SR4S) conducted by a variety of organizations. Other countries in the region where SR4S assessments have been done are Bangladesh (7 locations) and Nepal (16 locations).

Source: [New Star Rating for Schools Case Study: TRAX India](#)

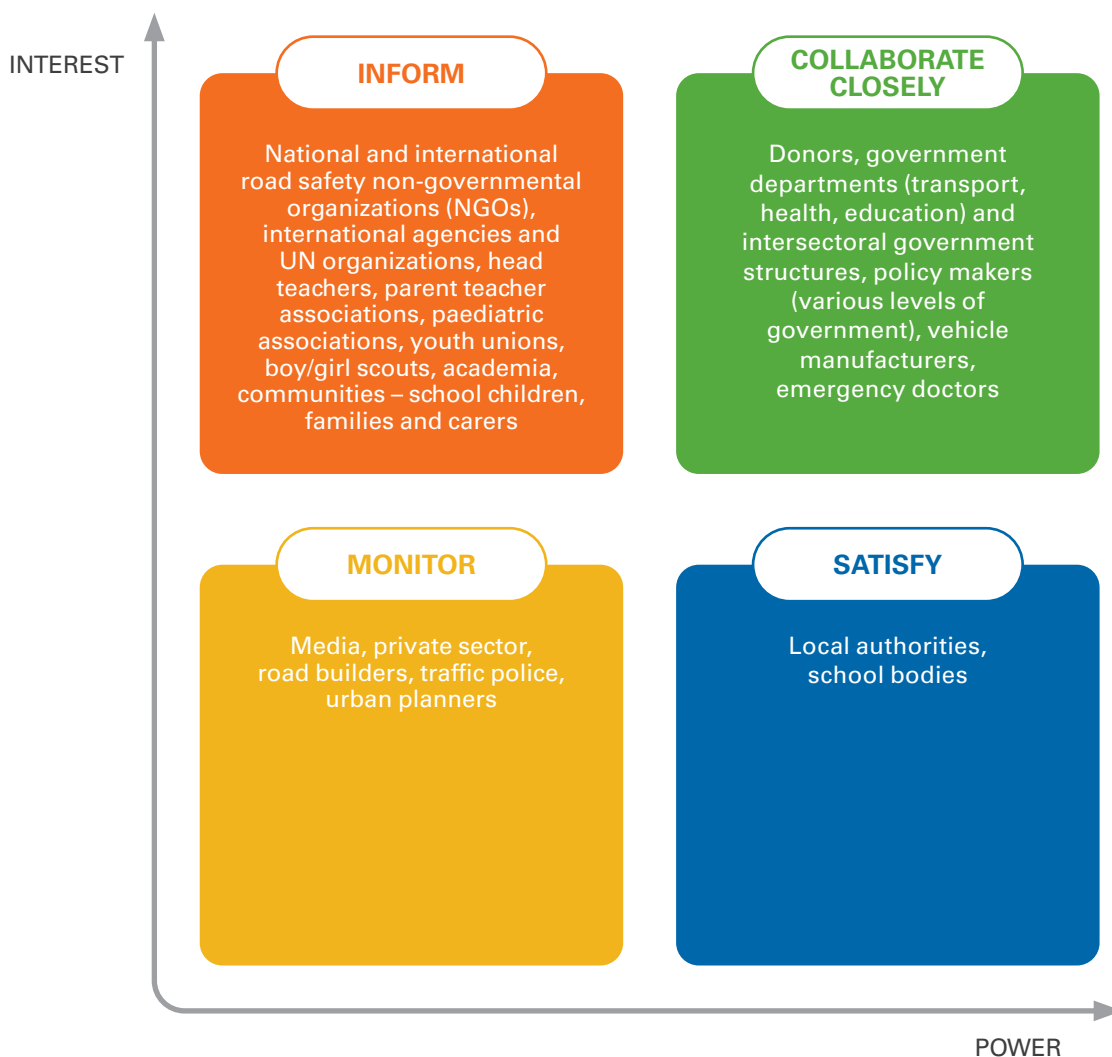
5.2 Identify stakeholders

Stakeholder analysis is an important step to undertake as it will identify supporters and detractors and ensure that the project will be sustainable in the long term. There are various methods for conducting stakeholder analyses – from simple two-by-two tables based on partners interest and power (53), more **complex political mapping** through to full Political, Economic, Social, Technological, Environmental and Legal (PESTEL) analysis which is a strategic framework used to these factors around an issue.

A simple stakeholder analysis for a school road safety project might look something like the two-by-two table below (Figure 4).

The primary focus of any road safety collaboration should be on supporting the government to adopt good laws and policies and to integrate safety-related interventions into programs that ensure sustainability.

Figure 4: Stakeholder analysis for child road safety prevention



Engaging with the community is key to developing and implementing road safety interventions. UNICEF has excellent guidelines on how this should best be undertaken through a set of [Minimum Quality Standards and Indicators in Community Engagement](#).

UNICEF's [child friendly school model](#) is an excellent example of a partnership approach to improving access to quality education for every boy and girl. It promotes inclusiveness, gender-sensitivity, tolerance, dignity and personal empowerment. It is based on the following principles:

- Schools should operate in the best interests of the child.
- Educational environments must be safe, healthy and protective.
- Classrooms should have trained teachers and adequate resources.
- Children's rights must be protected, and children's voices heard.

5.3 Identify potential interventions for the region

Once an assessment of the current burden, causes of road traffic collisions, and outcomes has been conducted, a collaborative process of identifying and agreeing interventions should take place. It is essential that decisions on "what to do" are grounded in evidence.

For the nations of the South Asia region interventions could, for example, focus on the following target groups:

- Vulnerable road users – pedestrians, cyclists and motorcyclists;
- School age children and adolescents and their caregivers;
- Boys.

And implementing the following EIGHT simple interventions:

1. Controlling speed around schools;
2. Mandating the use of helmets for all cyclists;
3. Improving visibility for pedestrians, e.g. through reflective backpacks, visibility strips, etc.;
4. Improving the infrastructure around schools through low cost engineering measures, e.g., zebra crossings, lighting, paved sidewalks, etc.;
5. Ensuring all vehicles are manufactured, assembled or imported with the eight recommended UN safety regulations;
6. Supervising children on their walks to school;
7. Providing road safety education and practice for all school children; and
8. Ensuring there are adequate child-friendly emergency response and services.

5.4 Collaborative implementation

An implementation plan should be developed collaboratively between all accountable and interested stakeholders and it should contribute to the national road safety strategy.

Partners should agree:

- ✓ The aim of the programme;
- ✓ The specific objectives;
- ✓ Activities to be undertaken;
- ✓ Implementers involved;
- ✓ Funding sources;
- ✓ Monitoring and evaluation methods (including agreed indicators).

Enablers such as developing an advocacy and communications plan and engaging with civil society and the community (teachers, parents and children) should be included.

The implementation plan should be inclusive and gender sensitive.



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CASE STUDY 2

UNICEF and the Government of the Maldives working together to improve road safety

Motorcycle safety has been identified as a priority issue in the Maldives, particularly the lack of helmet wearing by children and adolescents.

In response to this issue, on 28 February 2018, the Ministry of Transport and Civil Aviation distributed approximately 300 helmets to students at the Maldives National University, signalling the start of a national road safety campaign. These were part of a shipment of 3,300 helmets (half of which were reserved for children and adolescents under the age of 18) contributed by UNICEF to make the roads a safer place for children and their families.

In Malé, the capital city of the Maldives, there are over 82,000 registered motorbikes resulting in constant congestion and chaos on the road. According to the Ministry of Health, road traffic collisions increased by 75 per cent between 2012 and 2016. Consequently, all motorcycle riders crossing the China-Maldives Friendship Bridge and highway were required to wear a helmet from the beginning of March 2019. The helmet distribution prepared people for this new policy, and increased dialogue around its importance.

UNICEF continues to work with the government to raise awareness to improve road safety. They are also working with the Maldives Police Service to strengthen enforcement policies and procedures on the road. By focusing attention on these issues at the highest level, UNICEF is ensuring policymakers keep children at the forefront of their minds.



Source: UNICEF and the Government of the Maldives increase safe and responsible use of the roads | UNICEF The Maldives

5.5 Monitor and evaluate

Monitoring and evaluating should be an integral element of all road safety campaigns. It is through the implementation of monitoring and evaluation techniques that stakeholders can determine the success or failure of a campaign, and therefore design future campaigns accordingly.

The primary outcome of a child road safety programme should be clear. Outcomes are best measured by regular, independently conducted surveys, discussions and interviews, before, during and after a campaign or intervention.

Other less direct outcomes, sometimes referred to as performance indicators, may also be measured. UNICEF is currently working on developing a standardized set of indicators for the region. These could include:

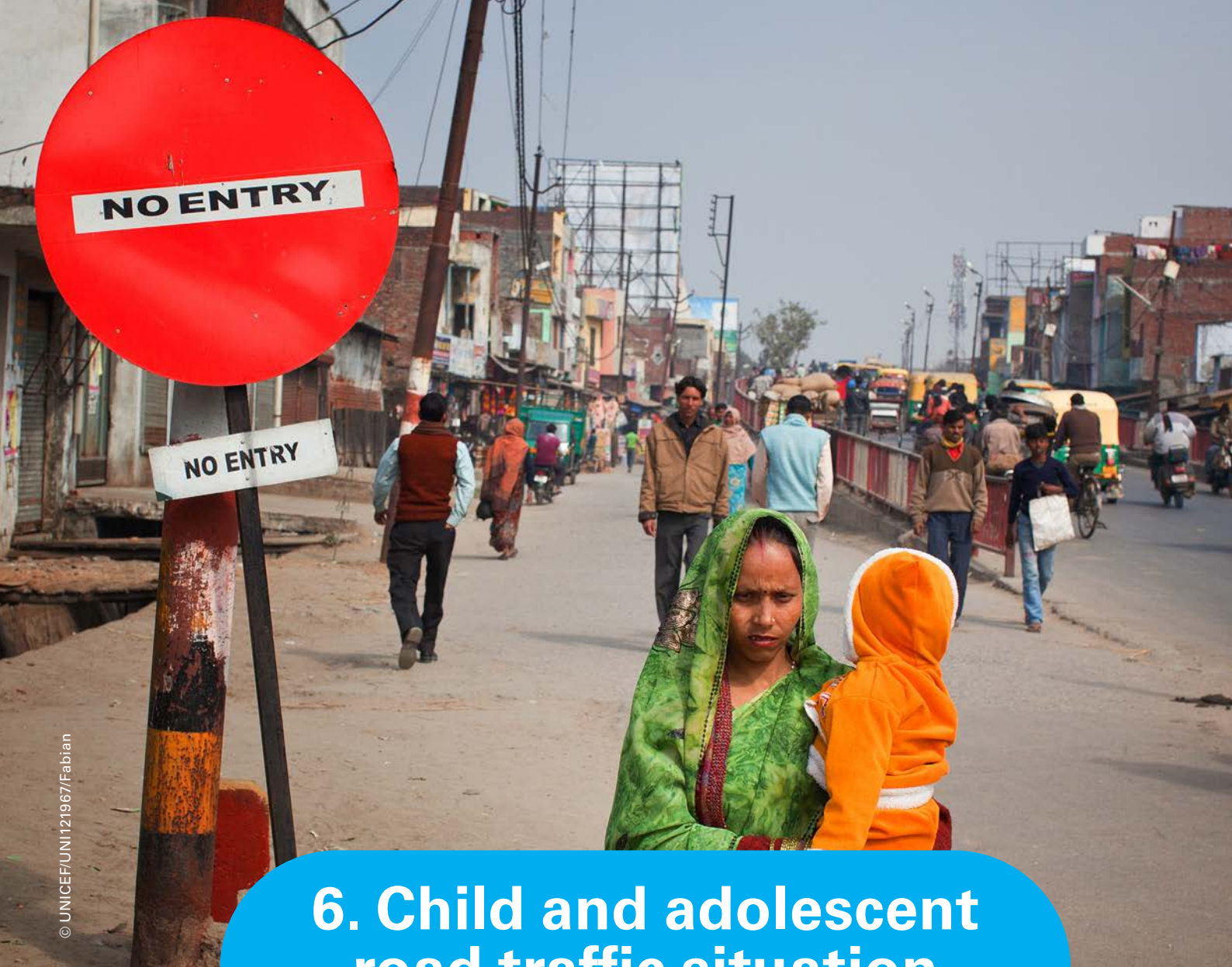
- Knowledge and attitudes;
- The extent of police enforcement;
- The frequency of public awareness campaigns; and
- The number of children who have received practical road safety training.

Some common indicators that could be measured include:

- Child road traffic fatalities (by road user group);
- Child road traffic injuries (by road user group);
- Per cent of fatally injured unrestrained/unhelmeted children;
- Per cent increase in children using safety equipment (helmets, child restraints, seatbelts);
- Knowledge and attitudes towards (child and adolescent-related) road safety laws and penalties;
- Changes in observed behaviours (pedestrian crossing practices, speeding, helmet wearing, restraint usage); and
- Vehicles fitted with ISOFIX attachments for child restraints; and
- Changes in infrastructure around schools;

A sound monitoring and evaluation framework provides a clear and explicit understanding of how the intervention is expected to lead to the desired outcomes and impacts. The conceptual framework, known as a result chain, supported by well-defined indicators, allows one to visualize this logical sequence.

The cost of monitoring and evaluating should be built into the overall cost of the programme.



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6. Child and adolescent road traffic situation in the South Asia

The South Asian nations under the regional office of South Asia (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) have an estimated combined population of 1.856 billion, or just under a quarter of the world's 7.9 billion. This includes 708,054 million children and young people under the age of 20.

There were a total of 12,175,546 deaths (from all causes, for all ages) in the region in 2019. Of these, the majority (65 per cent) were the result of non-communicable diseases, 25 per cent were due to communicable diseases and 9 per cent were due to injuries. Approximately one quarter of all the injury-related deaths were the result of road traffic collisions.

Children and adolescents under the age of 20 years accounted for approximately 10 per cent of all the deaths in the region, with proportionally more dying from communicable causes in all 8 countries (Table 2). A total of 171,468 children died of an injury, of which 29,859 died as a result of a road traffic collision – the leading cause of injury-related death in the region together with drowning (Figure 5).

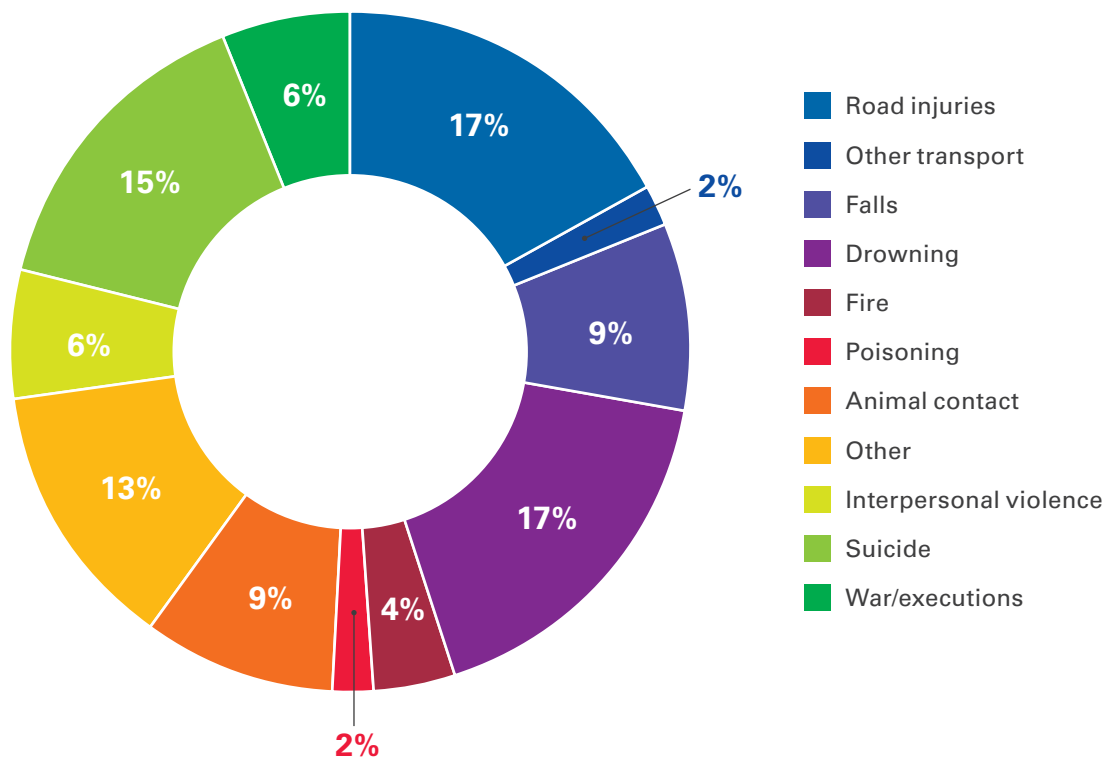
Table 2: Overall causes of death for all children and adolescents <20 years of age in South Asia, 2019

Country	Metric	Non-communicable diseases	Communicable diseases	Injuries*	Total
Afghanistan	Number	53,908	24,063	17,785	95,757
	Percentage	55.7%	24.9%	18.4%	
Bangladesh	Number	75,156	21,903	11,817	108,876
	Percentage	69.0%	20.1%	10.9%	
Bhutan	Number	389	95	55	539
	Percentage	72.3%	17.6%	10.2%	
India	Number	843,469	144,468	114,764	1,102,701
	Percentage	76.5%	13.1%	10.4%	
Maldives	Number	97	50	19	166
	Percentage	58.7%	30.2%	11.3%	
Nepal	Number	17,335	3,648	2,316	23,299
	Percentage	74.4%	15.7%	9.9%	
Pakistan	Number	422,562	58,173	23,643	504,378
	Percentage	83.8%	11.5%	4.7%	
Sri Lanka	Number	1,815	1,350	1,070	4,235
	Percentage	42.9%	31.9%	25.3%	
TOTAL	Number	1,414,732	253,751	171,468	1,839,950
	Percentage	77.3%	13.9%	9.4%	

* Injuries include intentional and unintentional causes

Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

Figure 5: Cause of injury-related death among children and adolescents <20 years of age in South Asia, 2019



Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

6.1 The burden of child road traffic deaths and injuries in South Asia

In the region, road traffic deaths were among the leading causes of death for children over the age of 1 year, with it being the leading cause of death for 15–19-year-olds and the second leading cause for 10–14-year-olds (Table 3).

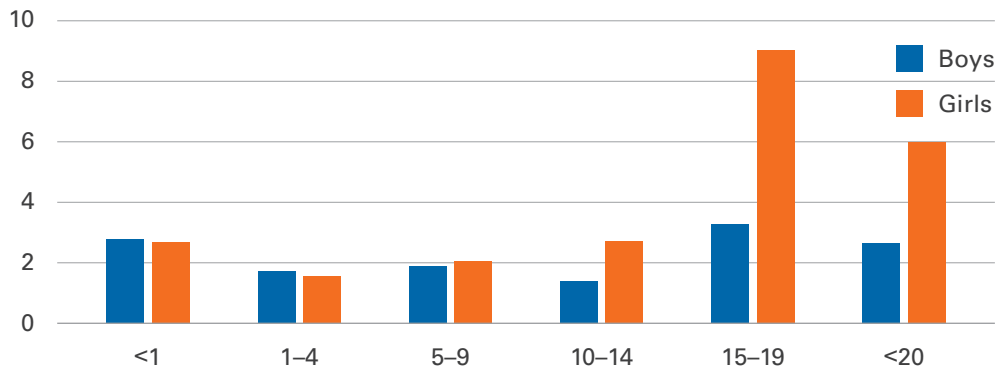
Of the 29,859 child and adolescent road traffic deaths that occurred in South Asia in 2019, 69 per cent were boys. The overall road traffic death rate for the region was 6 per 100,000 population (Figure 6) but this was skewed by Afghanistan recording rates in excess of 16 per 100,000 population (Figure 7).

Table 3: Leading causes of child and adolescent death in South Asia, 2019

Rank	Under 1 year	1–4 years	5–9 years	10–14 years	15–19 years	All <20 years
1	Neonatal disorders	Lower respiratory infections	Typhoid and paratyphoid	Typhoid and paratyphoid	Road injuries	Neonatal disorders
2	Congenital birth defects	Typhoid and paratyphoid	Lower respiratory infections	Road injuries	Exposure to mechanical forces	Lower respiratory infections
3	Lower respiratory infections	Congenital birth defects	Encephalitis	Exposure to mechanical forces	Typhoid and paratyphoid	Congenital birth defects
4	Sexually transmitted infections excluding HIV	Diarrheal diseases	Exposure to mechanical forces	Encephalitis	Maternal disorders	Typhoid and paratyphoid
5	Diarrheal diseases	Meningitis	Congenital birth defects	Drowning	Self-harm	Sexually transmitted infections excluding HIV
6	Exposure to mechanical forces	Exposure to mechanical forces	Road injuries	Congenital birth defects	Cirrhosis and other chronic liver diseases	Exposure to mechanical forces
7	Meningitis	Drowning	Drowning	Lower respiratory infections	Drowning	Diarrheal diseases
8	Sudden infant death syndrome	HIV/AIDS	Diarrheal diseases	Diarrheal diseases	Tuberculosis	Meningitis
9	Encephalitis	Encephalitis	Meningitis	Falls	Rheumatic heart disease	Road injuries
10	Protein-energy malnutrition	Falls	Falls	Other malignant neoplasms	Chronic kidney disease	Drowning
11	Falls	Road injuries	Leukaemia	Meningitis	Other malignant neoplasms	Encephalitis
12	Tuberculosis	Tuberculosis	Animal contact	Cirrhosis and other chronic liver diseases	Idiopathic epilepsy	Falls
13	Endocrine, metabolic, blood, and immune disorders	Animal contact	Cirrhosis and other chronic liver diseases	Leukaemia	Falls	Tuberculosis
14	Paralytic ileus and intestinal obstruction	Cirrhosis and other chronic liver diseases	Other malignant neoplasms	Idiopathic epilepsy	Ischemic heart disease	Cirrhosis and other chronic liver diseases
15	Acute hepatitis	Leukaemia	Brain and central nervous system cancer	Animal contact	Paralytic ileus and intestinal obstruction	HIV/AIDS

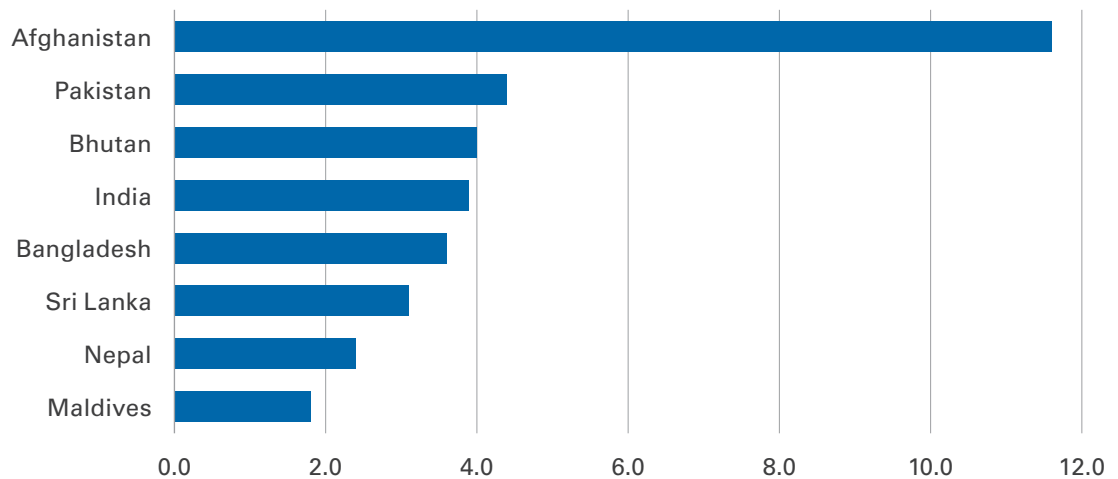
Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

Figure 6: Road traffic death rates per 100,000 children and adolescents in South Asia, 2019



Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

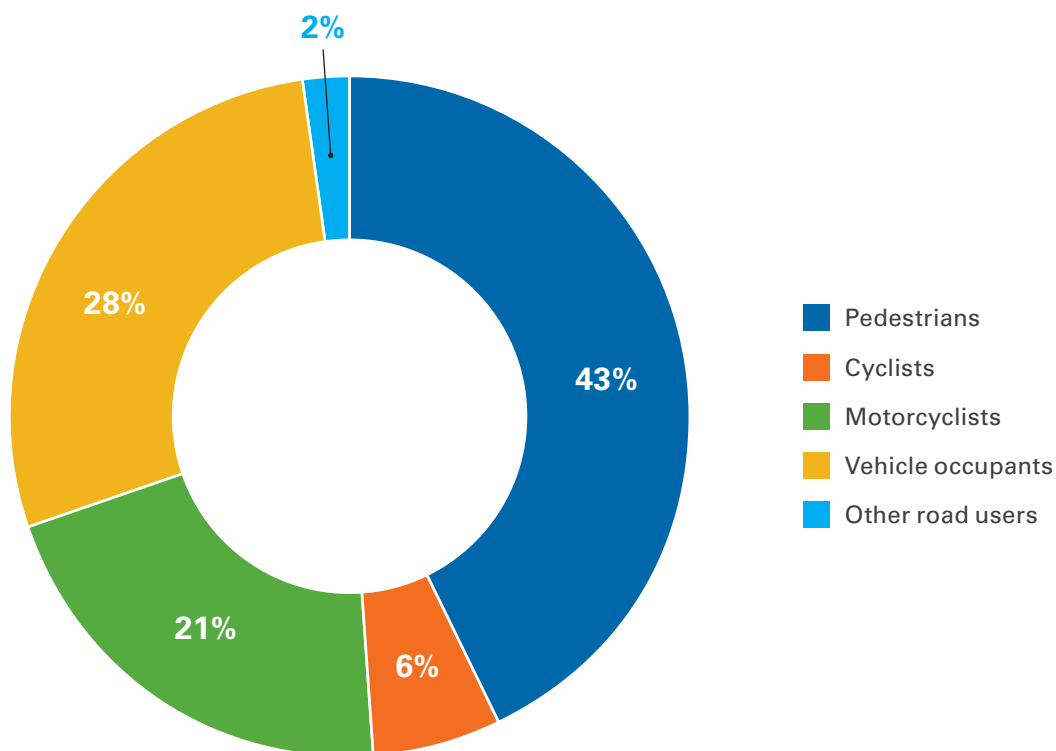
Figure 7: Road traffic death rates per 100,000 children and adolescents <20 years of age, both sexes, in South Asia, 2019



Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

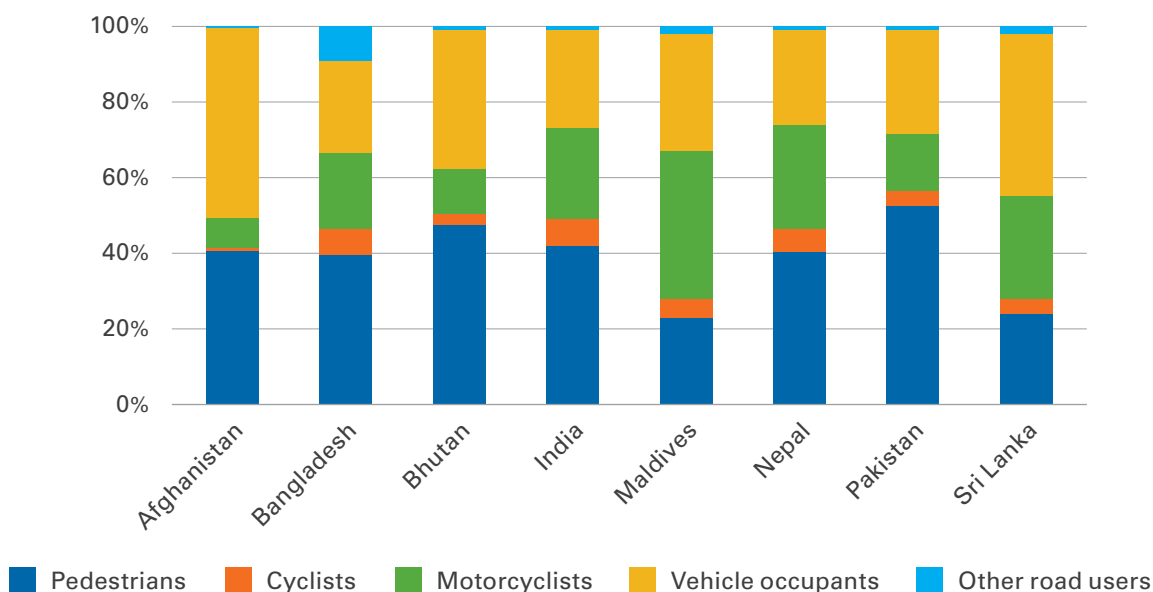
Over 70 per cent of the children and adolescents in the region who died in road traffic collision were vulnerable road users – pedestrians (43 per cent), motorcyclists (21 per cent) and cyclists (6 per cent) (Figure 8). However, there were distinct differences between countries with pedestrians being less of a concern in the Maldives and Sri Lanka, but motorcyclists more of a problem in these two countries (Figure 9).

Figure 8: Cause of death by road user group for children and adolescents <20 years of age, both sexes, in South Asia, 2019



Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

Figure 9: Road user deaths for children and adolescents <20 years of age, both sexes, in South Asia, 2019



Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

There was a total of 2.5 million years of disability-adjusted life years (DALY) lost due to road traffic collisions among children and adolescents <20 years of age in the 8 nations (Table 4). Since DALYs take into consideration both years lived with a disability (YLD) and years of life lost (YLL) due to premature mortality, those countries with high levels of morbidity and mortality due to road traffic collisions such as India, Pakistan, Afghanistan and Bangladesh show many hundreds of thousands of lost years.

There was a total of 258,921 YLD among children and adolescents <20 years in the 8 nations.

Table 4: Years lived with a disability (YLD), years of life lost (YLL) due to premature mortality and disability-adjusted life years (DALYs) as a result of road traffic collisions among children and adolescents <20 years of age, both sexes, in South Asia, 2019

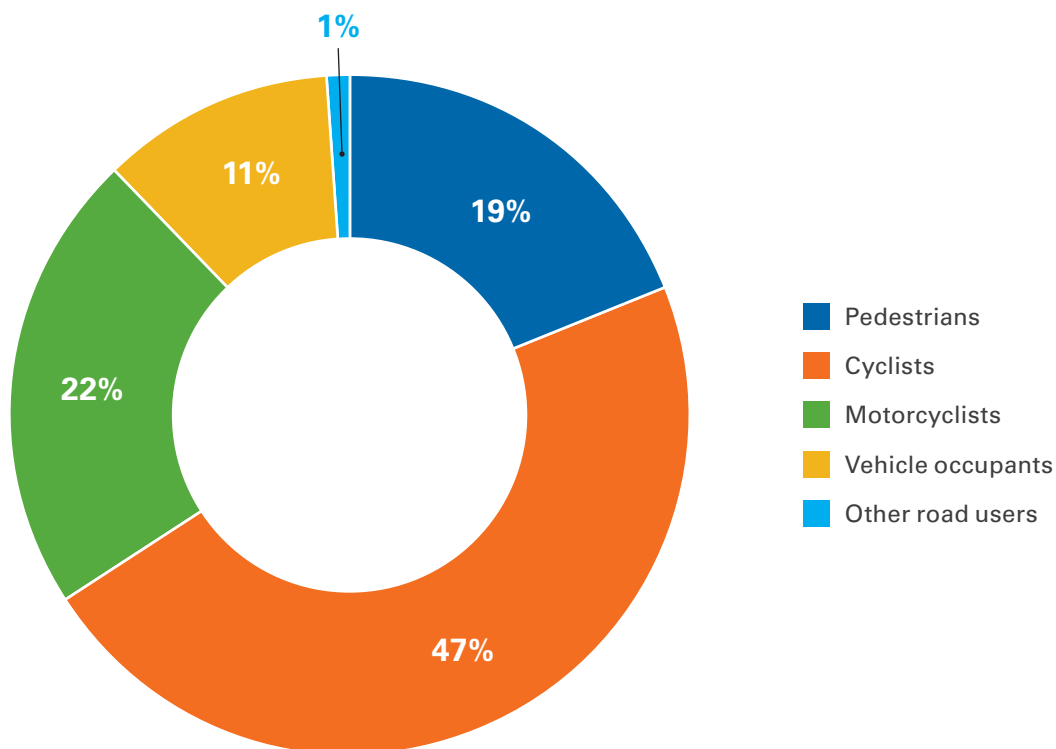
Country	YLD	YLL	DALYs*
Afghanistan	3,143	195,396	198,539
Bangladesh	26,120	162,354	188,474
Bhutan	103	816	919
India	188,730	1,508,957	1,697,687
Maldives	13	198	212
Nepal	3,054	22,107	25,160
Pakistan	37,001	384,099	421,100
Sri Lanka	757	15,952	16,709
TOTAL	258,921	2,289,879	2,548,800

* One DALY represents the loss of the equivalent of one year of full health. It is the sum of YLD (years of healthy life lost due to a disability) and YLL (years of life lost due to premature mortality).

Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

Children and adolescents who had sustained a disability as a result of a cycling collision accounted for almost half of all the YLDs (Figure 10). Motorcyclists and pedestrians – again vulnerable road users – made up a further 40 per cent. Many of these youngsters will require on-going support – medical, educational, social and economic – for years which can leave families with large out-of-pocket costs and possibly even push them into poverty if a potential breadwinner needs to look after the child at home.

Figure 10: Proportion of years lived with a disability (YLD) by road user group for children and adolescents <20 years of age, both sexes, in South Asia, 2019



Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from <https://vizhub.healthdata.org/gbd-results/>

6.2 The cost of road traffic injuries and deaths

Road traffic collision place considerable physical and psychosocial strain on those injured or disabled children and adolescents as well as their families. The financial strain can be severe as families need to absorb the direct medical and rehabilitation costs as well as the indirect costs created as a result of potential lost earnings (for the child) or actual lost earnings (if a parent needs to stop working to look after the child or adolescent). In addition, the emotional and practical impacts on families and caregivers are unquantifiable.

Although there are no child specific costs related to road traffic crashes in South Asia, there are data from The World Bank for all ages and all road users which indicate that serious injuries and fatal road traffic injuries cost multiple billions US\$ or between 0.3 and 7.5 per cent of their gross domestic product (GDP) (Table 5).

The cost effectiveness of interventions has been quantified in high-income countries such as Sweden, Australia and the United Kingdom and other examples are included in the UNICEF [Global Technical Guidance for Child and Adolescent Road Safety](#). Appropriately adapted road safety interventions implemented in the region can cut the volume of road traffic deaths and injuries. However, to bring about such a reduction requires both political and financial investments in prevention efforts targeting young people.

Table 5: The cost of serious and fatal road traffic collisions (all ages) and per cent of GDP in South Asia

Country	Cost of serious and fatal road traffic injuries (US\$ in 2016)	Cost as % of GDP
Afghanistan	955.71 million	5.0
Bangladesh	11.27 billion	5.1
Bhutan	128.59 million	5.8
India	172.02 billion	7.5
Maldives	13.72 billion	0.3
Nepal	1.12 billion	5.3
Pakistan	13.23 billion	4.7
Sri Lanka	3.97 billion	4.9

Source: (17)



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Country profiles

Country specific information is included in the following profiles. The data included have been obtained from published information (see Appendix) and through a brief survey completed by UNICEF country surveys.

Included in the country profiles are basic demographic information, viz. population numbers and per cent of children and adolescents <20-years of age, gender, the proportion living in urban areas, and GNI per capita. Aggregate information for the region revealed the following:

- The per cent of children and adolescents ranged from just 28 per cent in the Maldives to 56 per cent in Afghanistan (average 39.3 per cent);
- The per cent of males in the region ranged from 27.5 per cent in Nepal to 58 per cent in the Maldives;
- On average 31.5 per cent of the populations live in urban areas ranging from 20 per cent in Nepal to 41 per cent in Bhutan;
- The gross national income (GNI) per capita varied from US\$500 in Afghanistan to US\$6,490 in the Maldives; and
- Based on the World Bank classifications, Afghanistan is a low-income country, the Maldives an upper-middle-income country and all remaining countries in the region are lower-middle income.

The country profiles also include basic information about causes of death, road user groups and age groups as well as responses to the issue. Half of the countries identify child injuries as a national priority, but only Bhutan and Sri Lanka have a dedicated national child injury prevention unit. Other notable results include the following:

- **WHO recommends** that the optimal speed limit in cities and towns should be 30 km/hr. Of the 8 South-Asia nations only Bhutan and Maldives have implemented these limits. Other countries have speed limits ranging from 40 km/hr to 112 km/hr.
- Only India and Sri Lanka control speed around schools while three other countries have some speed control in place.
- Alcohol sale is prohibited in five of the South Asia. Bhutan and Sri Lanka have a drink-driving limit of <0.08 g/dl for drivers, while India has a Blood Alcohol Concentration of 0.03 g/dl.
- All the nations except Afghanistan have a national motorcycle helmet law and all countries allow child passengers on motorcycles. However, none of the countries have separate cycling lanes. Bhutan, Sri Lanka and Nepal have some 'partially' separated lanes in cities.
- None of the countries have a child restraint law or a legal mandate for new vehicles to have ISOFIX anchorages.
- Road safety and first aid training is only included in the school curriculum in Bangladesh, India, and Sri Lanka.

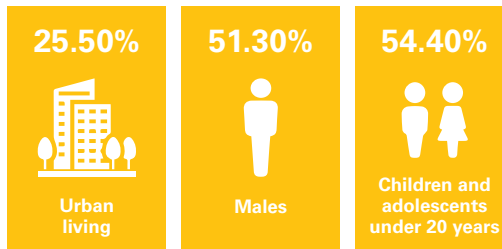
AFGHANISTAN

COUNTRY OVERVIEW^{1, 2, 3, 4}



POPULATION (2019)

Total population	38.9 million
GNI per capita	US\$500
Country income group	Low income

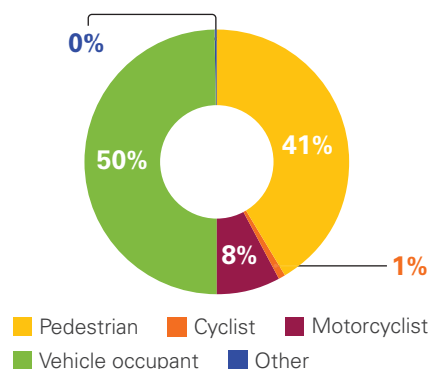


CAUSES OF DEATH AND INJURY AMONG UNDER 20 YEAR OLDS IN 2019⁵

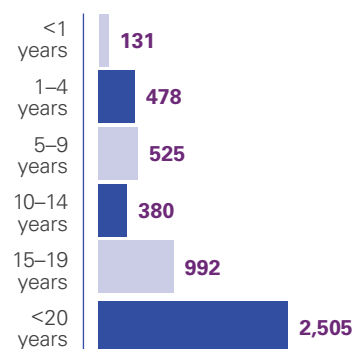
ROAD TRAFFIC DEATHS AND INJURIES

All injury deaths (n)	17,785
Road traffic deaths (n)	2,505
Rate per 100,000 population	11.60
% boys	75%
Years of healthy life lost to RTI-related disability	3,143

ROAD TRAFFIC INJURY BY USER



ROAD TRAFFIC INJURY BY AGE



RESPONSE AND COUNTRY POLICIES^{6, 7, 8}

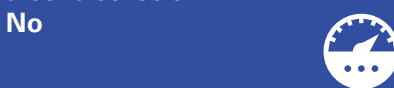
LEADERSHIP*

- Is child health a national priority?
No
- Is there a dedicated child injury prevention unit?
No



SPEEDING

- Urban speed limit
90 km/hr
- Can local authorities modify speed limits?
No
- Are speeds controlled around schools?*



ALCOHOL

- Blood alcohol content for drivers
Total ban
- Blood alcohol content for novice drivers
Total ban
- Age to buy alcohol
Total ban



MOTORCYCLES AND HELMETS

- Is there a motorcycle helmet law?
No
- Are children allowed on motorcycles?
Yes
- Are there separated cycle lanes?*



OCCUPANT RESTRAINTS

- Is there a child restraint law?
No
- Is there a child restraint standard?
No
- Do all new vehicles need ISOFIX anchorages?
No
- Age child can sit in front seat
No age restrictions



EDUCATION AND FIRST AID*

- Is road safety part of the school curriculum?
No
- Is first aid training mandatory in secondary schools?
No



* Data gathered UNICEF

BANGLADESH

COUNTRY OVERVIEW^{1, 2, 3, 4}



POPULATION (2019)

Total population	165.5 million
GNI per capita	US\$2,030
Country income group	Lower middle income

36.60%



Urban living

49.60%



Males

37.70%



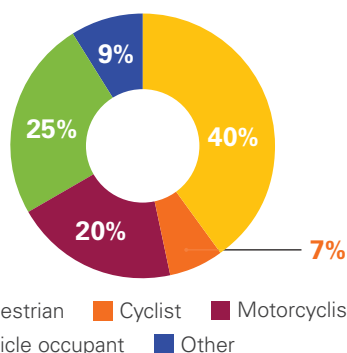
Children and adolescents under 20 years

CAUSES OF DEATH AND INJURY AMONG UNDER 20 YEAR OLDS IN 2019⁵

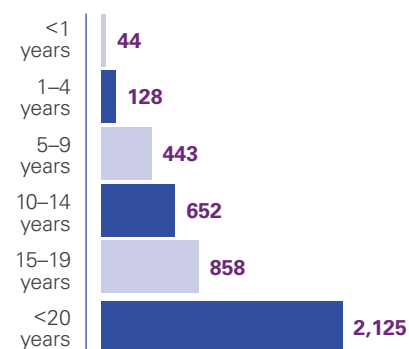
ROAD TRAFFIC DEATHS AND INJURIES

All injury deaths (n)	11,817
Road traffic deaths (n)	2,125
Rate per 100,000 population	3.60
% boys	80%
Years of healthy life lost to RTI-related disability	26,120

ROAD TRAFFIC INJURY BY USER



ROAD TRAFFIC INJURY BY AGE



RESPONSE AND COUNTRY POLICIES^{6, 7, 8}

LEADERSHIP*

Is child health a national priority?

Yes

Is there a dedicated child injury prevention unit?

No



SPEEDING

Urban speed limit

112 km/hr

Can local authorities modify speed limits?

No

Are speeds controlled around schools?*

Partial



ALCOHOL

Blood alcohol content for drivers

<0.03 g/dl

Blood alcohol content for novice drivers

<0.03 g/dl

Age to buy alcohol

Alcohol not widely available to anyone



MOTORCYCLES AND HELMETS

Is there a motorcycle helmet law?

Yes

Are children allowed on motorcycles?

Yes

Are there separated cycle lanes?*

No



OCCUPANT RESTRAINTS

Is there a child restraint law?

No

Is there a child restraint standard?

No

Do all new vehicles need ISOFIX anchorages?

No

Age child can sit in front seat

No age restrictions



EDUCATION AND FIRST AID*

Is road safety part of the school curriculum?

Yes

Is first aid training mandatory in secondary schools?

Yes



* Data gathered UNICEF

BHUTAN

COUNTRY OVERVIEW^{1, 2, 3, 4}



POPULATION (2019)

Total population	76.7 thousand
GNI per capita	US\$2,840
Country income group	Lower middle income

40.90%



Urban living

53.10%



Males

33.90%



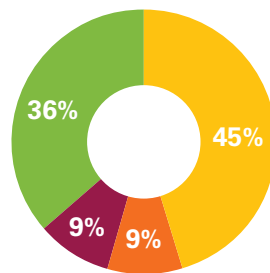
Children and adolescents under 20 years

CAUSES OF DEATH AND INJURY AMONG UNDER 20 YEAR OLDS IN 2019⁵

ROAD TRAFFIC DEATHS AND INJURIES

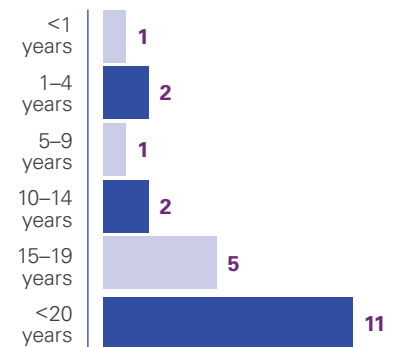
All injury deaths (n)	55
Road traffic deaths (n)	11
Rate per 100,000 population	4.00
% boys	67%
Years of healthy life lost to RTI-related disability	103

ROAD TRAFFIC INJURY BY USER



■ Pedestrian
 ■ Cyclist
 ■ Motorcyclist
 ■ Vehicle occupant
 ■ Other

ROAD TRAFFIC INJURY BY AGE



RESPONSE AND COUNTRY POLICIES^{6, 7, 8}

LEADERSHIP*

Is child health a national priority?

Yes

Is there a dedicated child injury prevention unit?

Yes



SPEEDING

Urban speed limit

30 km/hr

Can local authorities modify speed limits?

No

Are speeds controlled around schools?*

Partial



ALCOHOL

Blood alcohol content for drivers

<0.08 g/dl

Blood alcohol content for novice drivers

0 g/dl

Age to buy alcohol

18 years



MOTORCYCLES AND HELMETS

Is there a motorcycle helmet law?

Yes

Are children allowed on motorcycles?

Yes

Are there separated cycle lanes?*

Partial



OCCUPANT RESTRAINTS

Is there a child restraint law?

No

Is there a child restraint standard?

No

Do all new vehicles need ISOFIX anchorages?

No

Age child can sit in front seat

No age restrictions



EDUCATION AND FIRST AID*

Is road safety part of the school curriculum?

No

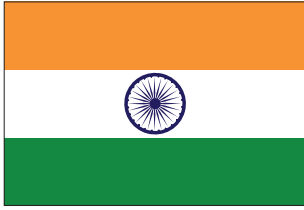
Is first aid training mandatory in secondary schools?

No



* Data gathered UNICEF

COUNTRY OVERVIEW^{1, 2, 3, 4}



POPULATION (2019)

Total population	1.38 billion
GNI per capita	US\$1,920
Country income group	Lower middle income

34.00%



Urban living

51.60%



Males

35.90%



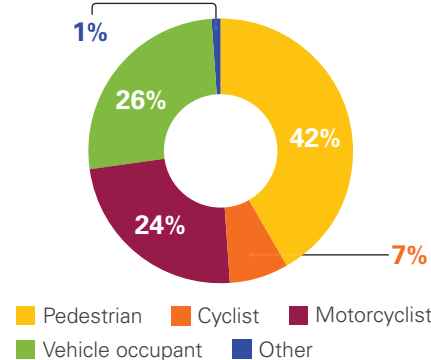
Children and adolescents under 20 years

CAUSES OF DEATH AND INJURY AMONG UNDER 20 YEAR OLDS IN 2019⁵

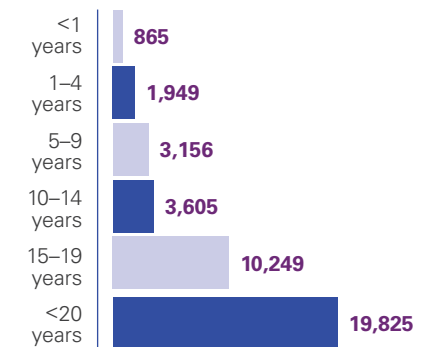
ROAD TRAFFIC DEATHS AND INJURIES

All injury deaths (n)	114,764
Road traffic deaths (n)	19,825
Rate per 100,000 population	3.90
% boys	72%
Years of healthy life lost to RTI-related disability	188,730

ROAD TRAFFIC INJURY BY USER



ROAD TRAFFIC INJURY BY AGE



RESPONSE AND COUNTRY POLICIES^{6, 7, 8}

LEADERSHIP*

Is child health a national priority?

Yes

Is there a dedicated child injury prevention unit?

No



SPEEDING

Urban speed limit

Needs to be changed to 70 km/hr

Can local authorities modify speed limits?

Yes

Are speeds controlled around schools?*

Yes



ALCOHOL

Blood alcohol content for drivers **<0.03 g/dl**

Blood alcohol content for novice drivers **<0.03 g/dl**

Age to buy alcohol **Subnational**



MOTORCYCLES AND HELMETS

Is there a motorcycle helmet law?

Yes

Are children allowed on motorcycles?

Yes

Are there separated cycle lanes?*

No



OCCUPANT RESTRAINTS

Is there a child restraint law?

Yes

Is there a child restraint standard?

No

Do all new vehicles need ISOFIX anchorages?

No

Age child can sit in front seat

No age restrictions



EDUCATION AND FIRST AID*

Is road safety part of the school curriculum?

Yes

Is first aid training mandatory in secondary schools?

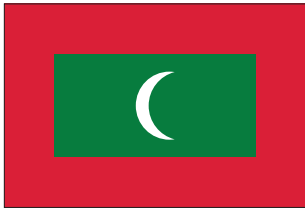
Yes



* Data gathered UNICEF

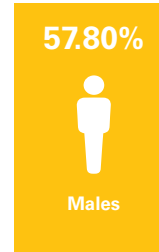
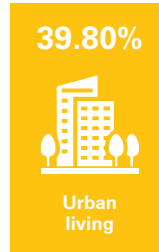
MALDIVES

COUNTRY OVERVIEW^{1, 2, 3, 4}



POPULATION (2019)

Total population	50.5 thousand
GNI per capita	US\$6,490
Country income group	Upper middle income

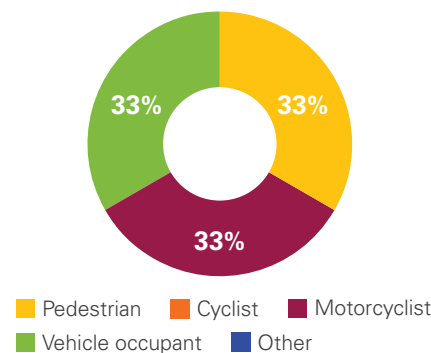


CAUSES OF DEATH AND INJURY AMONG UNDER 20 YEAR OLDS IN 2019⁵

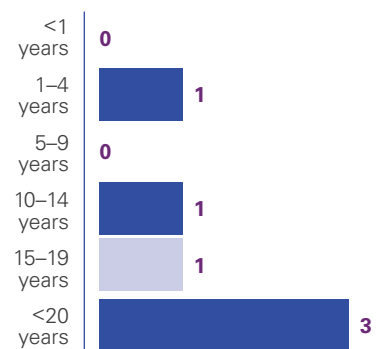
ROAD TRAFFIC DEATHS AND INJURIES

All injury deaths (n)	19
Road traffic deaths (n)	3
Rate per 100,000 population	1.80
% boys	72%
Years of healthy life lost to RTI-related disability	13

ROAD TRAFFIC INJURY BY USER



ROAD TRAFFIC INJURY BY AGE



RESPONSE AND COUNTRY POLICIES^{6, 7, 8}

LEADERSHIP*

- Is child health a national priority?
Yes
- Is there a dedicated child injury prevention unit?
No (Comes under police)



SPEEDING

- Urban speed limit
30 km/hr
- Can local authorities modify speed limits?
Yes
- Are speeds controlled around schools?*

No



ALCOHOL

- Blood alcohol content for drivers
Total ban
- Blood alcohol content for novice drivers
Total ban
- Age to buy alcohol
Total ban



MOTORCYCLES AND HELMETS

- Is there a motorcycle helmet law?
Yes
- Are children allowed on motorcycles?
Yes
- Are there separated cycle lanes?*

No



OCCUPANT RESTRAINTS

- Is there a child restraint law?
No
- Is there a child restraint standard?
No
- Do all new vehicles need ISOFIX anchorages?
No
- Age child can sit in front seat
No age restrictions



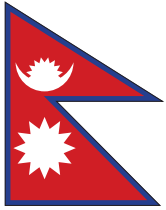
EDUCATION AND FIRST AID*

- Is road safety part of the school curriculum?
Yes
- Is first aid training mandatory in secondary schools?
No



* Data gathered UNICEF

COUNTRY OVERVIEW^{1, 2, 3, 4}



POPULATION (2019)

Total population	28.8 million
GNI per capita	US\$1,190
Country income group	Lower middle income

19.70%



Urban living

47.50%



Males

42.20%



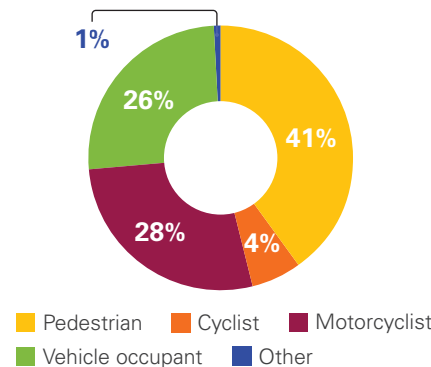
Children and adolescents under 20 years

CAUSES OF DEATH AND INJURY AMONG UNDER 20 YEAR OLDS IN 2019⁵

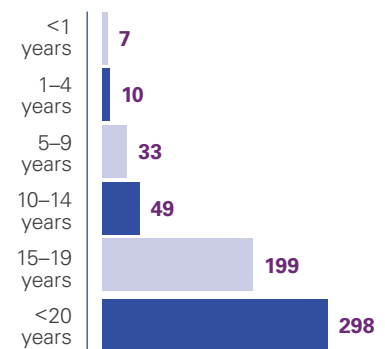
ROAD TRAFFIC DEATHS AND INJURIES

All injury deaths (n)	2,316
Road traffic deaths (n)	298
Rate per 100,000 population	2.40
% boys	76%
Years of healthy life lost to RTI-related disability	3,054

ROAD TRAFFIC INJURY BY USER



ROAD TRAFFIC INJURY BY AGE



RESPONSE AND COUNTRY POLICIES^{6, 7, 8}

LEADERSHIP*

Is child health a national priority?

Yes

Is there a dedicated child injury prevention unit?

No



SPEEDING

Urban speed limit
40 km/hr

Can local authorities modify speed limits?

No

Are speeds controlled around schools?*

No



ALCOHOL

Blood alcohol content for drivers
Total Ban

Blood alcohol content for novice drivers
Total Ban

Age to buy alcohol
18 years



MOTORCYCLES AND HELMETS

Is there a motorcycle helmet law?
Yes

Are children allowed on motorcycles?
Yes

Are there separated cycle lanes?*

Partial



OCCUPANT RESTRAINTS

Is there a child restraint law?
No

Is there a child restraint standard?
No

Do all new vehicles need ISOFIX anchorages?
Yes

Age child can sit in front seat
No age restrictions



EDUCATION AND FIRST AID*

Is road safety part of the school curriculum?
No

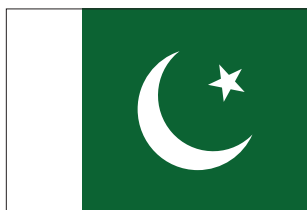
Is first aid training mandatory in secondary schools?
No



* Data gathered UNICEF

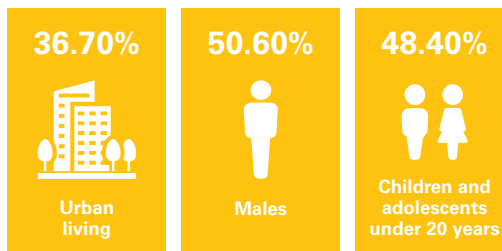
PAKISTAN

COUNTRY OVERVIEW^{1, 2, 3, 4}



POPULATION (2019)

Total population	223 million
GNI per capita	US\$1,270
Country income group	Lower middle income

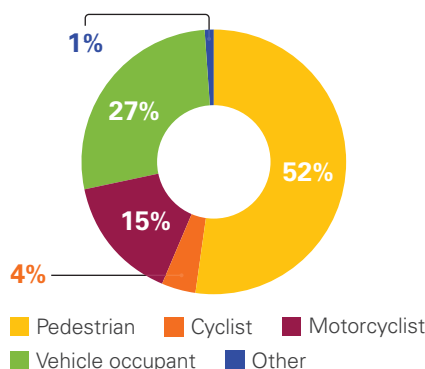


CAUSES OF DEATH AND INJURY AMONG UNDER 20 YEAR OLDS IN 2019⁵

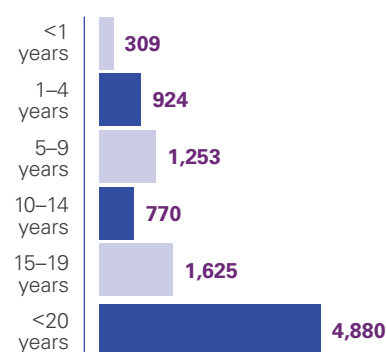
ROAD TRAFFIC DEATHS AND INJURIES

All injury deaths (n)	23,643
Road traffic deaths (n)	4,880
Rate per 100,000 population	4.40
% boys	46%
Years of healthy life lost to RTI-related disability	37,001

ROAD TRAFFIC INJURY BY USER



ROAD TRAFFIC INJURY BY AGE



RESPONSE AND COUNTRY POLICIES^{6, 7, 8}

LEADERSHIP*

Is child health a national priority?
Yes

Is there a dedicated child injury prevention unit?
No

SPEEDING

Urban speed limit
90 km/hr

Can local authorities modify speed limits?
Yes

Are speeds controlled around schools?*

Partial

ALCOHOL

Blood alcohol content for drivers
Total ban

Blood alcohol content for novice drivers
Total ban

Age to buy alcohol
Total ban

MOTORCYCLES AND HELMETS

Is there a motorcycle helmet law?
Yes

Are children allowed on motorcycles?
Yes

Are there separated cycle lanes?*

No

OCCUPANT RESTRAINTS

Is there a child restraint law?
No

Is there a child restraint standard?
No

Do all new vehicles need ISOFIX anchorages?
No

Age child can sit in front seat
No age restrictions

EDUCATION AND FIRST AID*

Is road safety part of the school curriculum?
Partial

Is first aid training mandatory in secondary schools?
Partial

* Data gathered UNICEF

COUNTRY OVERVIEW^{1, 2, 3, 4}



POPULATION (2019)

Total population	21.6 million
GNI per capita	US\$3,720
Country income group	Lower middle income

18.50%



Urban living

48.20%



Males

31.80%



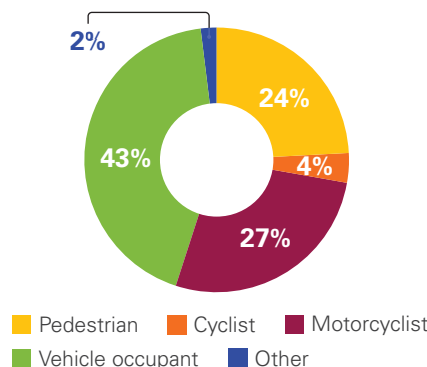
Children and adolescents under 20 years

CAUSES OF DEATH AND INJURY AMONG UNDER 20 YEAR OLDS IN 2019⁵

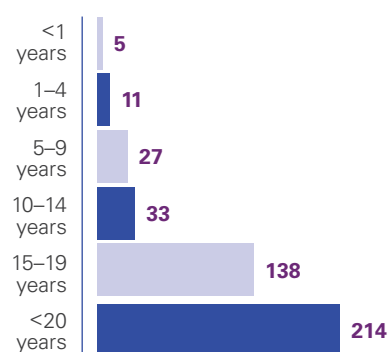
ROAD TRAFFIC DEATHS AND INJURIES

All injury deaths (n)	1,070
Road traffic deaths (n)	214
Rate per 100,000 population	3.10
% boys	73%
Years of healthy life lost to RTI-related disability	757

ROAD TRAFFIC INJURY BY USER



ROAD TRAFFIC INJURY BY AGE



RESPONSE AND COUNTRY POLICIES^{6, 7, 8}

LEADERSHIP*

Is child health a national priority?

Yes

Is there a dedicated child injury prevention unit?

Yes



SPEEDING

Urban speed limit
50 km/hr

Can local authorities modify speed limits?

Yes

Are speeds controlled around schools?*

Yes



ALCOHOL

Blood alcohol content for drivers
<0.08 g/dl

Blood alcohol content for novice drivers
<0.08 g/dl

Age to buy alcohol
21 years



MOTORCYCLES AND HELMETS

Is there a motorcycle helmet law?

Yes

Are children allowed on motorcycles?

Yes

Are there separated cycle lanes?*

Partial



OCCUPANT RESTRAINTS

Is there a child restraint law?

Yes

Is there a child restraint standard?

No

Do all new vehicles need ISOFIX anchorages?

No

Age child can sit in front seat
No age restrictions



EDUCATION AND FIRST AID*

Is road safety part of the school curriculum?

Yes

Is first aid training mandatory in secondary schools?

Yes



* Data gathered UNICEF

Appendix

Sources of data for country profiles

1. <https://population.un.org/wpp/Download/Standard/Population/>
2. <https://population.un.org/wup/Download/>
3. <https://data.worldbank.org/indicator/NY.GNP.PCAP.CD>
4. <https://datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html#:~:text=The20%World20%Bank20%classifies20%economies20%for20%analytical20%purposes,which20%is20%applied20%to20%smooth20%exchange20%rate20%fluctuations>
5. <https://ghdx.healthdata.org/gbd2019->
6. <https://www.who.int/publications/i/item/9789240086517>
7. <https://www.who.int/publications/i/item/9789241565639>
8. <https://unece.org/fileadmin/DAM/trans/main/wp29/wp29regs/2018/ECE-TRANS-WP-343-29Rev.26.pdf>



**Child and adolescent road safety
in South Asia**



for every child

**United Nations Children's Fund
Regional Office for South Asia (ROSA)**
P.O.Box 5815, Lekhnath Marg
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Email: rosa@unicef.org
www.unicef.org/rosa/