

# Roads and people: a fatal attraction?

Dr Olive Kobusingye highlights the challenges concerning Road safety and what can be done to change the rhetoric in Africa

In 2009, the United Nations Secretary-General reporting to the UN General Assembly, called for the designation of a global Decade of Action for Road Safety (2011-2020) to rein in the escalating toll of road traffic injuries and deaths on the world's roads. The 'key partners in global road safety agree that the time is right for accelerated investment in road safety in low and middle-income countries, together with the development of sustainable road safety strategies and programmes, rethinking the relationship between roads and people. This was important because of the global burden of road crashes, not just in premature deaths and ill health, but in economic and social costs. The Decade's goal was to flatten the curve, and then reverse the trend of road traffic injuries and deaths, saving millions of lives in the 10-year period.<sup>1</sup>

While the global Decade of Action for Road Safety did not lead to the reduction in road traffic injuries and fatalities, but the advocacy from that campaign led to the inclusion of road safety in the Sustainable Development Goals. Goal 3 (target 3.6) aims to 'halve the number of global deaths and injuries from road traffic accidents by 2030'. Goal 11 (target 11.2) aims to, by 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.<sup>2</sup>

In the African region, pedestrians are the single largest category of road users killed on the roads, 40% of all road fatalities, compared to 23% globally, making walking a high-risk activity.

Walking is the oldest and most enduring mode of transportation. Before vehicle motorisation, injuries and deaths on roads were limited to those from falls and horse-riding mishaps. The introduction of motorised vehicle changed that relationship into one where people were more likely to get injured or killed by the interaction between the fast-moving vehicle and the vulnerable person using the road, whether inside the vehicle or outside it. By 2009 when the call to rethink this relationship was made, nearly 1.3 million people were dying on the world's roads annually, and more than 90% of those were being killed on the roads of low- or middle-income countries.<sup>3</sup>

Mobility is so closely tied to the way most societies function that during the COVID-19 induced lockdowns



economies across the world took a plunge as industry and business ground to a halt.<sup>4</sup> While the need to limit close physical interaction was a major reason for the industry and business closures, the grounding of motorised traffic caused untold suffering, and in some countries probably led to more deaths than those from the COVID-19 infection, especially, in the initial phase of the pandemic.<sup>5</sup> Motorised traffic allows access to work, school, health care, leisure, and social interaction. Safer roads are therefore intricately linked to the way life is lived as most human activity requires some form of mobility.

In addition to the road traffic injuries and deaths, road traffic has other important health implications.<sup>6</sup> Road transport is estimated to be responsible for at least 15% of the global greenhouse gas emissions,<sup>7,8</sup> with the resultant pollution linked to respiratory and cardiovascular conditions. Tailpipe emissions of primary particles from road transport account for as much as 30% of fine particulate matter (less than 2.5 µm in aerodynamic diameter: PM<sub>2.5</sub>) in urban areas. Other emissions from road transport, such as those from resuspended road dust, are important contributors to the coarse fraction of PM (2.5-10 µm in aerodynamic diameter). Road transport is also the most important source of emissions of nitrogen dioxide and benzene in cities. The noise from motor vehicles contributes to noise pollution for roadside communities.

The insufficient physical activity associated with dependence on cars is a major contributor to obesity and related metabolic and cardiovascular illnesses.<sup>9,10</sup> The impact of roads and motor vehicles on people's lifestyles is therefore multifaceted, and interventions to improve health must consider safe and sustainable mobility.

Dr Olive Kobusingye is a Senior Research Fellow in Trauma, Injury and Disability, Makerere University School of Public Health, Kampala Uganda.

As the first Decade of Action for Global Road Safety ended in 2020, it was estimated that more than 1.35 million people were being killed on the world's roads, and that road injuries were the number-one killer of children and young adults aged 5–29 years.<sup>11</sup>

Africa has the highest rates of road traffic deaths globally, estimated at 26.6 road deaths per 100,000 people per year compared to 18.2 globally,<sup>12</sup> yet the region has the least motorisation of all the world's regions. Data from the Global Burden of Disease 2010<sup>13</sup> showed that between 1990 and 2010, the African region registered an average of 84% increase in road traffic deaths.

With the interlinkages between road safety, mobility, climate change, and health and well-being in mind, the interventions proposed for the Second Decade of Action for Road Safety (2021–2030) are consistent with the Safe Systems approach.<sup>14</sup> Specific interventions include comprehensive legislation on major risk factors for road crashes (such as alcohol, speed, helmet use, and child restraint), safer road infrastructure, safer vehicles, land use planning that considers the mobility and safety needs of all categories of road users, improved post-crash medical care, and strengthening capacity for road safety management. These recommendations are evidence based, but the bulk of the evidence has been generated in high-income countries.

Africa will need to domesticate these interventions to make them both relevant and feasible. For instance, a major concern for high-income countries is the over-dependence on private cars, which leads to diseases of physical inactivity and increases air pollution. For these countries, the recommendation for a modal shift, encouraging people to move from private cars to walking and cycling, is critical. In most African countries, most people already walk more than needed, not for leisure, but out of need. A worldwide survey on physical inactivity in 2016 found high-income Western countries to have the highest levels (42.3%, 39.1–45.4), compared to sub-Saharan Africa (17.9%, 15.1–20.5). Prevalence of physical inactivity was more than twice in high-income countries (36.8%, 35.0–38.0) as in low-income countries (16.2%, 14.2–17.9), and insufficient activity had increased in high-income countries over time (31.6%, 27.1–37.2, in 2001).<sup>15</sup> Transport contributes a large part to this physical activity. For this region therefore, the more urgent need is to create safe walking and cycling conditions, which ties directly into another recommendation, that of creating safe road infrastructure.

An August 2020 General Assembly Resolution on improving global road safety encouraged Member States to 'ensure the safety and protection of all road users through safer road infrastructure.'<sup>16</sup>

The other recommendation that African countries need to pay attention to is the provision of safe public transport, especially for the burgeoning towns and cities. The emergence of the motorcycle taxi as a public transport vehicle is in direct conflict with the aspirations of the Second Decade which envisages 'safe, affordable, accessible and sustainable public transport'. Moving large numbers of commuters on two wheels is inefficient, increases congestion and pollution, and is not sustainable.

For many African countries, the COVID-19 pandemic has strained already fragile transport systems. Measures to mitigate viral transmission, are difficult to sustain in those settings. In addition to concerns for the prevention of injuries, transport systems need to plan for broader public health safety. The institution of these measures might make transport more expensive, leading to the exclusion of those with very low incomes. Africa and other regions with high burdens of road traffic crashes and injuries are therefore navigating two simultaneous challenges – protecting road users from road crashes and injuries, and ensuring that road transport does not become a conduit for infections such as COVID-19. (See graphic). Countries struggling with just the prevention of injuries will find it even more difficult with the additional sanitary demands.

The second Decade of Road Safety offers many opportunities. By drawing on non-traditional road safety players such as big businesses, and promoting synergies between sectors such as education (safe routes to school) and procurement (large fleets). It opens frontiers with potential to mobilise more road safety resources, bringing the attainment of the road safety goals closer.

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