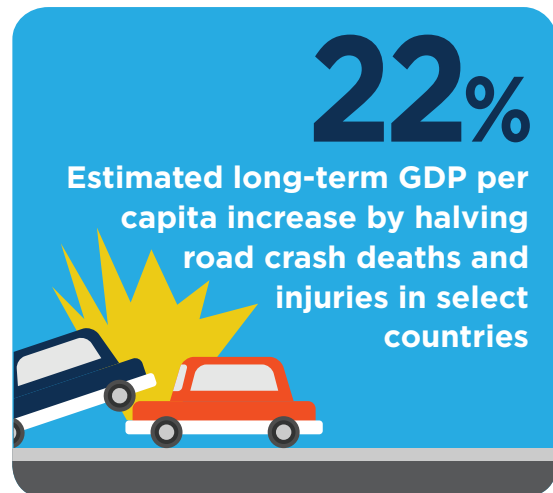


## The Cost of Inaction: Can We Afford Not to Invest in Road Safety?

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Road crashes are among the most significant public health issues of the century; they account for 97 percent of deaths across all modes of transport.<sup>1</sup> The latest WHO estimate of 1.34 million road crash deaths and up to 50 million injuries per year reflects a slight increase in deaths over previous years, with 90 percent of these deaths occurring in low- and middle-income countries. Further road injury disproportionately affects young adults 15–29 years old: it is the lead cause of death during their most productive years.

Along with the unquantifiable loss of life, and pain, grief and suffering, there is a direct burden to society from disabilities, deaths, and the economic hardships they bring. The devastating impact is not only felt by the victim's family, where the disability or death of a breadwinner can drive a household into poverty; it also affects the overall economy. Overall productivity and quality of life is affected when otherwise healthy individuals are disabled or die. Crashes also place a burden on emergency response, medical treatment, and rehabilitation services in addition to loss of labor productivity, affecting the quality of life of the overall population.



### The impact of crashes on GDP growth

Road deaths and their costs continue to rise during the 2010–20 Decade of Action for Road Safety, which is aimed at halving the total number of road crash deaths. The large burden of road crash deaths and injuries among young adults can have a long-term impact on GDP growth. Policymakers across sectors are increasingly recognizing the

socioeconomic burden of road crashes, but the national-level economic impact is not fully understood or quantified. It remains widely unreported, largely due to the lack of data or inconsistent methodologies used for estimates.

The cost of crashes has been estimated by previous World Bank analyses across various regions,<sup>2</sup> which found that crash costs can add up to more than

<sup>1</sup> Sustainable Mobility for All. 2017. Global Mobility Report 2017: Tracking Sector Performance. Washington DC, License: Creative Commons Attribution CC BY 3.0.

<sup>2</sup> Dahdah, S. and Bose, D. 2013. "Road Traffic Injuries: A Public Health Crisis in the Middle East and North Africa." Transport Notes TRN–45. October 2013. Washington, DC: World Bank.

7 percent of GDP in some Middle East and North African countries. But these costs may not have been followed by action, as they are not directly reflected in GDP growth measures. On the other hand, the measures of productivity of the industries that ameliorate crashes—emergency rescue, hospital care, vehicle repair, and the judicial system—are included in the GDP.

Demonstrating the effect of crashes on GDP growth over the long term is more likely to compel decisions to invest in road safety. Yet no clear analysis of the macroeconomic income impact of crashes has been undertaken until now.

A recent study by the World Bank<sup>3</sup> is one of the first systematic efforts toward understanding the economic impact from reducing road crash deaths and injuries. The study—funded by the Bloomberg Philanthropies and inspired by health studies on the impacts of other diseases—shows that, over time, sharply reducing the number of road traffic injuries would enable developing countries to attain substantial increases in economic growth and national income, while leading simultaneously to welfare gains. The results underscore the high price of inaction, and demonstrate the potential economic benefits of sustainable interventions in road safety.

## Results across countries and years

The study is built on existing estimates of the economic burden of disease and premature death, using data from 135 countries over a period of 24 years. It estimates the macroeconomic growth impact of road injuries in five countries: India, China, Philippines, Tanzania, and Thailand. The results indicate that halving road crash mortality and morbidity could generate substantial additional flows of income, with increases in GDP per capita over 24 years as large as 7.1 percent in Tanzania, 7.2 percent in the Philippines, 14 percent in India, 15 percent in China, and 22.2 percent in Thailand.

The effect on national income growth, however, is only a part of the story. Because the intangible

value society assigns to health is not captured in the income growth estimates, the study also assesses what it would be worth to people to reduce the risk of road traffic injuries and deaths, and finds enormous welfare benefits. Using value of statistical life (VSL) measures—the monetary value assigned to a life saved—the study estimates that halving road traffic injuries and deaths over a period of 24 years could realize welfare benefits equivalent to 6 to 32 percent of national GDP for the five countries in the study.

A logical pattern of results has emerged: road crashes inevitably create costs from deaths, injuries, disability, and property damage; the crash costs may be equivalent to 3 to 7 percent of GDP. The compounded effects of these costs on actual economic growth have now been quantified in the study, and when accumulated over a 24-year period they are significant.<sup>4</sup>

## The road ahead

Many road safety interventions have proven their cost-effectiveness, yet have not been adopted. For nations and all organizations aiming to address poverty, these results have profound implications that are impossible to ignore. Country experiences around the globe have shown that if governments and other stakeholders adopt effective and sustainable evidence-based policies and interventions, the loss of life and its effect on the society, health, and economy can be greatly reduced.<sup>5</sup>

Furthermore, a significant economic and welfare loss is associated with every year that low- and middle-income countries fail to adopt effective policies and interventions to substantially reduce road crash injuries and deaths. Countries should acknowledge these facts. They should not ask themselves: Can we afford to invest in road safety? They should instead ask: Can we afford not to invest in road safety?

<sup>3</sup> World Bank. 2017. *The High Toll of Traffic Injuries: Unacceptable and Preventable*. A World Bank Study. Advisory Services and Analytics Technical Report P155310. Washington, DC: World Bank.

<sup>4</sup> The World Bank study focused on a 24-year period as the underlying model for existing estimates was developed for a same period of time.

<sup>5</sup> For examples, see: GRSF 2015. *Leveraging Global Road Safety Successes*. Washington, DC: World Bank

*Connections* is a series of knowledge notes from the World Bank Group's Transport & Information and Communication Technology (ICT) Global Practice. Covering projects, experiences, and front-line developments, the series is produced by Nancy Vanduycke and Shokraneh Minovi.

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