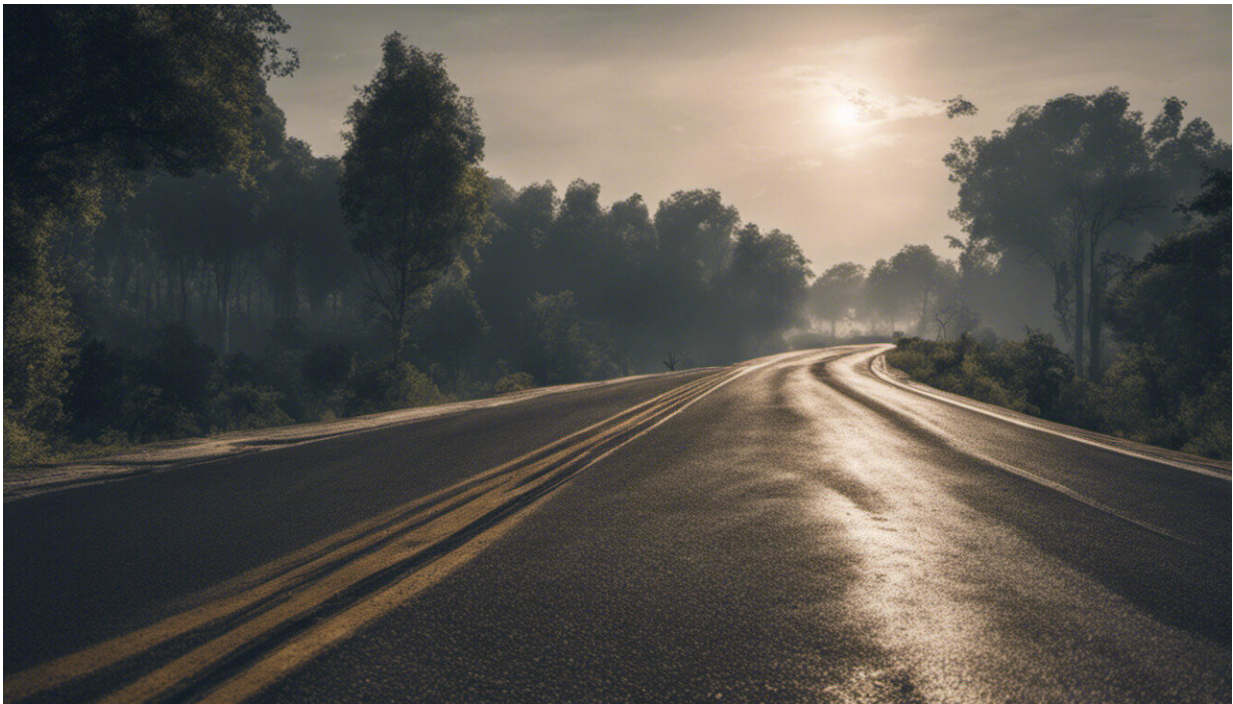


Study: Road safety campaigns linked to fewer deaths

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Credit: AI-generated image ([disclaimer](#))

Since 2011, the United Nations has continually targeted, and largely failed to realize, greater road safety on a global scale. Road deaths are, in fact, increasing. Road safety efforts are nothing new to Japan, which has been conducting seasonal, nationwide education and enforcement campaigns since 1952.

A team of Japanese researchers based at the University of Tsukuba acquired 71 years of road [death](#) numbers, spanning 1949 to 2019. It then applied mathematical modeling to examine the numbers' association with the months that Japan's annual road [safety](#) campaigns take place. It was revealed that the campaigns evidently did reduce road deaths by 2.5% in those months. The findings were published in the *Journal of Epidemiology and Community Health*.

"Bias has been a lingering problem when examining the outcomes of road safety campaign studies," says University of Tsukuba Professor Masao Ichikawa, who conceived the study and served as its senior author. "This is because of potential confounding factors, such as concurrent events, other public policies for road safety, and temporal changes in population and infrastructure. We aimed to use mathematical modeling to account for those factors and to gain a clearer picture of the outcomes."

Professor Ichikawa's team made use of seven decades of data, containing the years of 68 National Traffic Safety Campaigns spanning 10 days each. Japan's campaigns, organized by government and industry, are conducted every spring (April, May, or June) and autumn (September or October). They include interventions such as stronger enforcement of traffic laws, warnings in media, and volunteer advocates to disseminate education.

With a focus on spring campaigns, the team tabulated monthly numbers of deaths. The researchers then created a [mathematical model](#) to determine the monthly number of deaths per day over the study period. Interestingly, when analyzed separately in four subperiods (1949-1964, 1965-1989, 1990-2004, and 2005-2019), slightly larger reductions in road deaths during [campaign](#) months were seen in 1949-1964, when Japan was still a middle-income country.

"There are some limitations in previous studies on road safety interventions," Professor Ichikawa says. "Our study, however, benefits from its robust model and its deep analysis of many decades of data. Not only can we see the lessons learned over the years, but we can also confidently show that education and enforcement campaigns alone are far from enough to substantially reduce [road](#) deaths."

More information: Haruhiko Inada et al, Effect of annual road safety publicity and enforcement campaign on road fatalities in Japan: a time series study from 1949 to 2019, *Journal of Epidemiology and Community Health* (2021). [DOI: 10.1136/jech-2021-216532](https://doi.org/10.1136/jech-2021-216532)

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