

Public health emergency changed the way we work

Esther Wagner, Randolph Atkins 

The public health emergency changed the way we work, shop, access education and interact socially. It has also changed the way we travel. Understanding the results of those changes in travel behaviour is an evolving process that benefits from the addition of new information, different voices and novel perspectives. In papers published in this special edition of *Injury Prevention*, researchers take steps to describe the traffic safety conditions that occurred during the pandemic-related travel restrictions in Connecticut and Japan and on car seat checks. Their work helps build the case for countermeasure development and implementation that will save lives and prevent needless injuries from motor vehicle crashes.

The mission of the National Highway Traffic Safety Administration (NHTSA) is to save lives, prevent injuries and reduce economic costs due to road traffic crashes, through education, research, safety standards and enforcement. In furtherance of this mission, the Agency spends considerable resources tracking road traffic injuries and deaths and works with States to access and analyze these data. As States began reporting their second quarter (April, May and June) data, NHTSA saw a departure from historical trends. Historically, when vehicle miles travelled (VMT) decrease, fatalities also go down. While the number of road traffic deaths in the second quarter decreased year over year, the VMT decreased even more, resulting in a higher fatality rate. Understanding why became a priority.

NHTSA conducted a synthesis of non-traditional data to help understand this traffic safety environment.¹ State and national data suggest that several factors contributed to the increase in the fatality rate. First, there is evidence of an increase in ejection rates among people who were in crashes, suggesting a decrease in the seat belt use rate of vehicle occupants. This ejection rate increase was heavily tilted towards male individuals, people aged 18–35

years, and those in rural areas. Second, according to State data and other reports, speeding was more prevalent on the roads. The reduction in traffic volume coupled with a probable reduction in law enforcement activity provided drivers a greater opportunity to speed. Finally, there is evidence of increased alcohol use and higher drug use, including marijuana and opioids. This is reflected in NHTSA's newly released research from five trauma centres, which revealed a higher prevalence of alcohol, cannabinoids and opioids in drivers who were crash victims during the public health emergency compared with the period immediately preceding the emergency.²

The experience in Japan documented by Inada, Ashraf and Campbell provides valuable insights on enforcement, speeding and changes in the types of fatal crashes observed during the pandemic-related lockdown and immediately after restrictions were eased. They observed an increase in the proportion of speeding-related fatalities in April 2020; however, they observed a return to the baseline in May 2020 as restrictions were eased and more people were on the road. They also note that the National Police Agency pivoted to enhanced speed enforcement in May 2020. This experience may demonstrate the combined effect of more enforcement and relative crowding on the road to prevent speeding-related crashes and deaths.

Doucette, Tucker, Auguste, Watkins, Green, Pereira, Borrup, Shapiro and Lapidus offer another perspective in their detailed analysis of crash data in Connecticut through April 2020. In addition to the dramatic drop in VMT compared with previous years, they observed a stark reduction in non-injury crashes, but a disconcerting increase in weekly fatal crashes and in weekly single vehicle crashes.

Taken in combination, it is reasonable to conclude that there was a different population of drivers—who may be inherently more likely to take risks—operating in a different roadway environment. It appears that some drivers continued driving despite stay-at-home guidelines and took risks that included

speeding, driving impaired and not using their seat belts. These drivers, along with a potential reduction in law enforcement and safety messaging, are likely factors that contributed to an environment more conducive to risky behaviour and resulting increased fatality rates. This presents a disheartening change in momentum in efforts to reduce fatalities and to keep traffic safety trends moving in the right direction. However, it also points towards course corrections that can be taken now. Delivering highly visible enforcement and traffic safety messages aimed at the riskiest behaviours of the riskiest drivers are the most obvious actions, but they are not the only ones.

The articles in this journal took advantage of the data that were available at the time. As researchers, many of us are uncomfortable with using preliminary data that may need further cleaning and vetting. However, exceptional circumstances sometimes require us to adjust to the situation at hand. The courage the authors used in accepting the data they had to draw these preliminary conclusions will help us identify a much-needed course of action during these challenging times.

These articles contribute to our understanding of the unexpected effects of the changing traffic safety environment during the global health emergency. By adding layers of analysis and data sources, we can narrow our uncertainty about the sources and causes of the observed changes in traffic-related deaths and injuries. Further, they help us narrow the focus of the countermeasures that we will use to correct this tragic increase in road traffic deaths. Research like this is critical not only for identifying problems, but also for seeing opportunities to deploy corrective countermeasures, as was done in Japan, to reverse the trends and prevent the horrific costs of these behaviours. The ability to see where the problems lie is merely the first step.

Collaborators Esther Wagner.

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Correspondence to Dr Randolph Atkins, Office of Behavioral Safety Research, Natl Highway Traff Safety Adm US, Washington, DC 20590, USA; randolph.atkins@dot.gov

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ORCID iD

Randolph Atkins <http://orcid.org/0000-0002-2367-6121>

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