

Non-collision injuries, physical activity, and wellbeing

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Trauma

The World Health Organization 2018 update on global road safety reported 1.35 million road travel deaths worldwide in 2016. While this is the eighth leading cause of death overall, it is the leading cause of death for children and young people aged five to 29 years (World Health Organization, 2018). These numbers are five times higher than the estimated 251,000 non-firearm related deaths that occurred worldwide in 2016 not in war settings. More than 50% of these firearm deaths occurred in six American countries: USA, Brazil, Mexico, Colombia, Venezuela and Guatemala. Globally, almost two-thirds were murder [homicide]; over a quarter were suicide; around 18,000-25,000 were unintentional, corresponding to one in eleven such deaths. The proportions as well as the population rates varied dramatically by country (The Global Burden of Disease 2016 Injury Collaborators, 2018).

There is a great need to learn from each other – not only across disciplines but also across topics. In the USA, the debate is generally focused on interpersonal violence. However, there are twice as many suicides as homicides by firearm in the USA, yet research on firearm violence is largely prevented by the Dickey amendment (Rivara et al., 2018).

Similarly, the focus on pedestrians injured or killed while travelling along a road focuses on collisions. In the USA, pedestrian fatalities increased by 35% from 2008 to 2017 (NHTSA's National Center for Statistics and Analysis, 2019). France has been trialling the practice, common in Australia, of allowing 'filtering' by powered two wheelers, permitting such vehicles to turn at a junction without a green light as long as pedestrians are given precedence. It seems that this practice can increase the risk of pedestrian injury fivefold (Clabaux et al., 2019). But there is increasing concern about pedestrian falls while travelling (Elvik & Bjørnskau, 2019; Gyllencreutz et al., 2015; Methorst et al., 2017a; Oxley et al., 2018; Schepers et al., 2017). Pedestrian falls are excluded from most definitions of travel casualties (Methorst et al., 2017b) and are thus not widely studied. Yet pedestrian casualties from falls have been shown in several countries to be a more frequent cause of hospital admission of pedestrians than collisions with a vehicle.

Non-collision injury

In Dunedin, New Zealand, the availability of buses (both frequency and routes) is very limited and usage is therefore low, so standing is uncommon. Drivers wait before driving off for passengers to sit (for passengers of any age) and give time for passengers to stand up and alight from the bus. I imagine that injury rates there are low. That is not the case in most cities. This issue of the journal includes two papers about non-collision injuries caused to passengers on public transport. A national study in Israel, where traditionally bus has been a major form of travel both within and between urban areas, found substantial numbers of hospitalisations due to bus-related non-collision injuries (Siman-Tov et al., 2019). Three-quarters of injuries were due to falls inside the bus, while one-quarter occurred when boarding or disembarking; two-thirds were aged 75 or older but no data are provided on the age distribution of passengers. More information is provided by Elvik (2019) in his review. He found that internationally, the risk of falling inside a bus was of the order of 200-300 per billion passenger km [around 300-500 per billion passenger miles]; the risk of falling when boarding or alighting was 0.8-1.7 per million passengers (Elvik, 2019).

Public transport

Despite these figures, public transport remains a generally safe and sustainable travel mode. It is often included in the definition of 'active travel' because of the likelihood of walking or cycling to

and/or from the public transport stop. In China, people who perceived local access to public transit stops as being good were more than three times as likely to meet physical activity recommendations as those who did not, after adjusting for individual and neighbourhood factors (Wang et al., 2019). Even car-dominated societies such as the USA now have vocal campaigns for investment in public transport (<http://voicesforpublictransit.org/blog.aspx?id=04-22-2019>), which is recommended by the Center for Disease Control and Prevention (<https://www.cdc.gov/transportation/recommendation.htm>).

Commuting and wellbeing

This issue also contains two papers about commuting and wellbeing. Kent and her colleagues (2019) explored the commuting experiences of residents of a newly built greenfield area in Australia, who had long commutes (mean 50 minutes after the move). The new area had been designed to encourage active travel within the area but most people moving already worked elsewhere – and indeed, there were probably not sufficient employment opportunities in the new area. Access to public transport services was very poor, so commuting by car was the norm. They found that mental wellbeing was inversely associated with having to leave home earlier and with longer duration of commuting (Kent et al., 2019). The association with long commutes was also reported in Hong Kong (Sha et al., 2019), where they also found an association with obesity. This was notable for being in a compact city, rather than a greenfield development on the outskirts of a sprawling city as in Kent et al.'s study. Martin and colleagues (2014) had also found that duration of commuting was associated with worse wellbeing for drivers but had found a positive relationship between duration of walking commutes and wellbeing. This and other studies have shown that commute travel mode is strongly associated with wellbeing - active travel being associated with better wellbeing and driving with lower wellbeing - such as in Portland Oregon (Smith, 2017) and Great Britain (Martin et al., 2014).

However, although Singleton found better mental and physical health and hedonic wellbeing among active commuters in Portland, Oregon, individuals commuting by cycle had higher distress and fear levels and lower security. He suggested that improving infrastructure could maintain the benefits and reduce the negative feelings engendered by cycling (Singleton, 2018).

Special issues on Travel, health and wellbeing and on Transport and health in New Zealand

Commuting and wellbeing is thus a topic that needs further elucidation, so I am delighted to announce that there will be a special issue of this journal *on Travel, health and wellbeing*. As with all special issues from 2019 onwards, accepted papers will be published in the next regular volume, to reduce the time to publication, and will also be published online as a virtual special issue (VSI), a collection of the themed papers.

There will also be a special issue on *Transport and health in New Zealand*. Eighty percent of trips in New Zealand are made by car, with fewer than 10% made on foot and similarly small proportions by public transport. Issues such as urban sprawl, large rural areas, low levels of physical activity, high vehicle ownership, high road traffic fatalities, and increasing carbon emissions are the background to this car-dominated system and the consequent problems for health and inequalities. The recent report *Turning the tide – from cars to active transport* outlines key policy recommendations for active transport in New Zealand (Mandic et al., 2019). The report was developed by a cross-sector coalition of symposium delegates working in academia, industry and non-governmental organisations with prior work experience in central/local government and the private sector. The report was launched in Wellington, New Zealand, in April 2019 in the presence of policy-makers (including a national government minister), practitioners, and academics. The recommendations are based on solid scientific evidence, many of which are from papers published in this journal (more than one-third of the report's cited journal papers).

The call for abstracts for the Travel, health and wellbeing VSI can be found at <https://www.journals.elsevier.com/journal-of-transport-and-health/call-for-papers/travel-health->

[well-being](#). The call for abstracts for the New Zealand VSI will be published on the journal's home page shortly(<https://www.journals.elsevier.com/journal-of-transport-and-health/call-for-papers>). EVISE will be open for submission of abstracts to both from 1st June to 31st October 2019.

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