Editorial

DRIVING CHANGE

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This is another bumper volume of the *Journal of Transport and Health*, with 51 full length articles and two short submitted (and peer-reviewed) commentaries, as well as the editorials. The papers included cross the whole range of the field, from ergonomics of public transport seats (Tetteh et al, 2017) to self-efficacy for sustainable travel (Horiuchi et al, 2017), plus the usual mix of papers concerned with benefits of transport (access, physical activity) and its harms (particularly injury and inequalities).

Many people working in the cross-disciplinary field of transport and health are ardent advocates of active travel, both for the health benefits of incorporating physical activity into daily life (Liao et al, 2016; Oja et al, 1998; Norwood et al, 2014) and because modal shift reduces the adverse health impacts on others caused primarily by motor vehicles (Buekers et al, 2015; Khreis et al, 2016). However, Cullen and colleagues (2017a, in this volume) remind us that where other travel options are not viable, driving is very important. Among the Aboriginal and Torres Strait Islander communities driving is important for autonomy, the justice system (Cullen et al, 2017b), and cultural identity as well as for access to services, education, jobs and social opportunities. Access to these activities, and to a supportive network of contacts (Holt-Lunstadt et al, 2010), is important for everyone.

Debate is therefore ongoing about driving by older people. While some argue that many older people are unsafe to drive, others point to the adverse effects on health and wellbeing of loss of independence and the increase in fatalities in other travel modes when age-based screening of drivers is introduced (Siren and Meng, 2012). Systematic reviews have found that age-based screening of older people is not effective (Siren and Haustein, 2015), but in this volume a new study suggests that function-based screening could be important. Antin and colleagues in this volume show that 22 of the 58 measures of functional health capabilities were associated with crash risk, particularly grip strength, rapid pace timed walk, visual contrast perception, and speed-of-processing/visual-attention metrics, as was deteriorated functional health (Antin et al, 2017). Given functional limitations, older people generally have fewer transportation options. However, Olsen et al. in this volume show that among adults in West Central Scotland, UK, while those in poor health were less satisfied with their transport, retired people were generally more satisfied with their transport than people in employment (Olsen et al, 2017). Between the late 1990s and 2010, satisfaction with transport grew least among car users.

Functional impairments in, and risk-taking by, drivers may become irrelevant in the future, with autonomous vehicles being hailed as the answer to a wide range of transport problems. Proponents allege that autonomous vehicles will prevent collisions and the consequent injuries and casualties; will enable those who cannot drive to retain the independence a car can bring; and if shared, not owned by individuals, will reduce congestion because far fewer cars shared between a wide range of people (even if not shared occupancy) will be able to transport the same number of individuals more efficiently, freeing up much parking space for other social goods (Rojas-Rueda et al, 2017). Some researchers are more sceptical about this utopian transport future (Schwartz and Lee, 2017), with the potential for increased congestion and pollution and reduced active travel, depending on how these vehicles are used (Rojas-Rueda et al, 2017). Crayton and Meier (2017) have written a thoughtful article in this volume pointing out some of the potential benefits and harms of autonomous vehicles.

In many high income countries, it is the more affluent who choose to use cars (Mackett, 2014) with implications for sedentary behaviour and physical activity. In a study in the Netherlands, business car owners were least likely to meet weekly physical activity recommendations (Koorneef et al, 2017, in

this volume). In California, USA, dependence on motor cars is also very socially patterned (Chakrabarti and Shin, 2017, in this volume) but researchers found that those from poorer backgrounds, minority ethnic groups, or with children were less likely than others to have public transport [transit] as an option and were more often car-dependent. This group were less likely to meet physical activity recommendations than wealthier car users. A study of women in California also published in this volume found that mothers who had low education, low income, were African American, or worked part time were more likely than other groups to walk for travel, although younger women were less likely to walk for travel (Lee, 2017). In Australia, it was also residents of low-socio-economic position who were less likely to walk or use public transport and more likely to travel by car. More detailed analysis showed that people living in poorer but high-density areas were particularly at risk of being physically inactive for daily travel (Sugiyama et al, 2017, in this volume). Exposure to adverse effects of other people's car use is also more likely for low income people and those from minority ethnic groups (Mackett, 2014). By disaggregating modelled regional effects of transport plans, Poorfakhraei and colleagues (2017) show in this volume that an overall improvement in air pollution can hide greater exposure in some smaller areas, masked by improvements elsewhere in the region.

In many parts of the world, motorcycles and other two- and three-wheeled vehicles predominate over cars, raising serious safety concerns. The paper in this volume by Ghasemzadeh and colleagues (2017) uses the Theory of Planned Behaviour in their study of motorcycle helmet use in a rural area of Iran. They found that subjective norms supporting the use of helmets and perceived behavioural control were the important predictors of helmet-wearing. This is the type of study we hope to see reported in a future special issue on travel behaviour change: see https://www.journals.elsevier.com/journal-of-transport-and-health/call-for-papers/call-for-papers-for-the-special-issue-behaviour-change-in-tr for the current call for submissions.

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