Although it may not be obvious, there are many connections between transport and public health. Whenever we travel, we expose ourselves to a range of health risks.

The obvious one is road traffic collisions: everyday people get injured or die in road crashes. In 2019, 1,146 people were killed in road-related deaths in Australia, that is over 3 people per day. Road users who have less crash protection than occupants of motor vehicles (i.e., cyclists, motorcyclists, and pedestrians) are particularly vulnerable in the event of a collision and more likely to suffer serious injury or death.

Air pollution is another health risk associated with transport. Whenever people commute into a congested city centre, their respiratory system is exposed to air pollution. Some people are more vulnerable than others: children for example are frequently exposed to car exhausts as their nose and mouth are closer to the fumes.

It is estimated that, in a single year, air pollution from motor vehicles causes between 900 and 2,000 early deaths and between 900 and 4,500 cases of bronchitis, cardiovascular and respiratory disease, costing between $1.5 and $3.8 billion.
Broader health impacts and policy influencers

Exposure to residential road traffic noise is another side-effect of transport that can lead to a range of health issues, including stress, sleeping disorders, and even strokes.

The type of transport we use also has a major impact on our health and wellbeing. When we use active forms of travel such as walking or riding a bike, we engage in incidental physical activity which brings all sorts of benefits: improved fitness, cardiac health, reduced risks of depression and fatigue, improved mood, weight management, reduced risk for cancer and chronic disease, improved endurance, circulation and also posture.

The below figure shows how health outcomes are shaped by policies, plans and programs as well as the profound effects they have on people’s behaviours and the environment they live in.

Figure 1. Active Transport and Built and Natural Environment Policy influencers of health risks and benefits
Transport and the COVID-19 outbreak

The Covid-19 outbreak has had a profound impact on traffic volumes, patterns, pedestrian spacing and perceptions of safety (i.e., exposure to contaminated surfaces or contact with other commuters). With many travel restrictions still in place, there are less people travelling to work, taking children to schools or sports, visiting shops and restaurants, and accessing other services.

Pedestrian counters in Melbourne’s CBD provide an excellent, up-to-date insights into how the city was impacted at the peak of mobility restrictions, shown in the infographic below.

Pedestrian movements in Melbourne CBD:

Foot traffic in Melbourne CBD has a pattern of peaks and troughs that remains consistent year-round and is predominantly influenced by the work week. Between Monday and Friday, hourly pedestrian counts go above 70,000 as more people enter the CBD for work-purposes. Over the weekend, hourly counts top-out around 50,000.

In mid-March, the number of pedestrians reduced significantly, with peak hourly counts barely reaching 10,000 during the working week, and around 7,000 over weekends.

Isolation and social distancing

With numerous restrictions in place (i.e., limited public gathering, work-from-home arrangements where possible), people’s activity spaces have been completely reshaped around essential services including supermarkets, public open space and post-offices (and the surge in the volume of online shopping).

CityLab recently invited their readers to draw maps of their worlds in the time of coronavirus, these maps illustrate how neighbourhoods have been redefined under social distancing and stay-at-home orders.

These illustrations also reveal disparities in the services people can access around their home by walking or cycling.

With limited options for recreational activities, we have seen increases in the number of people walking or cycling on their local trails and bike paths. In certain locations, it has raised concerns that current infrastructure does not support all users and their different needs. It has also become clear that respecting social distancing in these spaces is challenging, if not impossible.

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The COVID-19 pandemic highlights several social issues that transport planners and policymakers need to consider:

- Women are overrepresented in industries, such as aged care and health care - they have greater travel needs and an increased exposure risk. We know that safety in and around transport is a major concern for women who are more vulnerable to violence in public transport and adjacent public spaces. Supporting frontline workers and making sure they can get to and from work safely needs to be a priority.

- With less people on the streets, perception of safety could change. We know that when more people are on the street it often leads to less fear of crime. Planning for people’s return to deserted areas is critical.

- The relatively confined spaces and limited ventilation of public transport, taxi and rideshare services increases risk of workers and passengers being exposed to COVID-19.

- Whilst the risk of exposure to COVID-19 in transport cannot be completely eliminated, it can be managed with practical measures (i.e., frequently touched surfaces such as doors, handrails, windows and vending machines should be sanitised frequently using appropriate detergent and disinfectant solutions). Designing practical solutions for managing the risk of exposure to the COVID-19 virus around transport is key.

- The surge in bicycle ridership and recreational walking must be encouraged and supported with upgraded infrastructures and agile planning, as it brings many benefits to public health.

The planning response:

As lockdown measures begin to ease in Australian cities, transport planning can help reduce the risk of infection and slow the spread of coronavirus. This is a great opportunity for the transport sector to help shape policies and plans that enable people to live a healthier, more active life.

It is also important to acknowledge disparities within and between cities. There are inequities in the urban form: some areas are isolated and disadvantaged, lack access to basic services, concentrate vulnerable population (older people, front line workers, etc.) and those inequities must be addresses throughout a tailored planning response.

Some general planning responses may include:

- **For those who cannot move around**: implement large scale daily delivery services.

- **For those who ride bicycles or walk**: provide safe routes, dedicated lanes, and wider footpaths to allow for physical distancing.

- **For those who use public transport**: provide dedicated services for health workers, install portable hand-washing stations for people entering and exiting the station, install alcohol-based hand-rub dispensers, design floor markings to help with physical distancing, schedule more frequent services, restrict access to seats where needed (to maintain distancing), and encourage passengers to travel outside of peak times.

- **For those who use a private car**: install portable hand-washing stations in carparks, encourage the use of alcohol-based solutions after exiting the vehicle, encourage drivers to respect those people who are making space by walking or riding a bike.
Moving forward

As Australia looks to lift social restrictions progressively and reopen day-to-day activities, there is a significant opportunity to invest in transport projects for the betterment of community health and well-being. The increase in active transport is indicative of the importance of walking and cycling for members of the public - it is important that we harness this momentum and prioritise active transport within local and state transport strategies, and place greater a focus on the intersection of transport and health.

It is also vital that we shift the discussion from traffic flow and transport efficiency to include other measures of equal importance: safety, health, and equity. Planning for better networks that prioritise social and community needs is aimless if we do not have metrics as a benchmark for our intentions and evaluations. This is equally important in short-term planning as it is for the longer-term objectives that build on our immediate work and create meaningful health impacts for the public.

The COVID-19 pandemic has emphasised that we are all dependent on our health, and that we also rely on the health of our neighbours and community to lead active and meaningful lives. The COVID-19 virus is not going to disappear in the coming weeks, nor will the other critical health challenges that we face as a society. As we allow the dust to settle and reassess our situation, we need to use this time purposefully to plan our next moves and investments in transport networks. Now more than ever, health considerations need to form a central part of the planning agenda.

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