

Transport's impact on health and equity

Randal, E.; Shaw, C.; McLeod, M.; Keall, M.; Woodward, A.; Mizdrak, A. The Impact of Transport on Population Health and Health Equity for Māori in Aotearoa New Zealand: A Prospective Burden of Disease Study. *Int. J. Environ. Res. Public Health* 2022, 19, 2032. <https://doi.org/10.3390/ijerph19042032>

RANGAHAU / RESEARCH

- A modelling project to estimate the amount and distribution of health lost because of our current land transport system.
- Health loss from road injury, air pollution and physical inactivity was estimated for the entire NZ population alive in 2011.
- Completed as part of a PhD with the Department of Public Health, University of Otago, Wellington.

NGĀ HUA MATUA / KEY FINDINGS

- If we do not change the way we travel to reduce road injury and air pollution and increase physical activity, we will lose approximately 1.3 million healthy years of life for the baseline (2011) population alone.
- Māori people lose, on average, 74% more health due to the transport system than non-Māori.
- For the whole population, most of the lost health is caused by physical inactivity. However, for Māori males the biggest cause of lost health is road injury.
- If we can reduce this health loss, we could save up to \$7.7 billion in health system costs over the life of the 2011 population.
- Eradicating road injury, air pollution and physical inactivity from our transport system would have health benefits of a similar size to eradicating tobacco and obesity.
- Reducing this health loss would increase life expectancy for Māori more than non-Māori. If we could create a transport system that allows everyone to achieve the recommended levels of physical activity whilst causing no road injury or air pollution, we could reduce the gap in healthy life expectancy between Māori and non-Māori by approximately 2-3%
- Māori would also realise these health gains at a younger age, so changes in the transport system to address the negative health impacts will help Māori faster.
- Since this study was carried out, an update of the health effects of air pollution in NZ was released (the HAPINZ 3.0 Study). This assessment found much greater loss of health from nitrogen dioxide (NO₂) than had been expected. If these findings were included in our study, the total health loss from transport might be double what we have reported.

WHAIKUPU / RECOMMENDATIONS

- **Practitioners, developers and leaders:** Designing neighbourhoods, suburbs and urban areas in a way that encourages people to walk, cycle and use public transport instead of driving will improve people's health and wellbeing.
- **Local Government:** act to reduce the barriers to sustainable transport by ensuring that planning rules allow changes to the urban environment that support walking and cycling over driving.
- **Central Government:** Shift the status quo around car dependence through policy and funding that supports sustainable transport and urban development to realise substantial social, economic and environmental benefits of healthier cities



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