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Committee **Regional Land Transport**
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Impacts of Transport on Health

1. Purpose

To provide the Committee with a brief overview of evidence for the effects of transport on health, based on a summary by the Public Health Advisory Committee¹.

2. Significance of the Decision

The matters in this report do not trigger the significance policy of the Council or otherwise trigger section 76(3)(b) of the Local Government Act 2002.

3. Introduction

Transport is an example of a sector outside of health that has a significant impact on health.

4. Key impacts of transport on health

Transport provides us with access to work, education, shopping, social networks and recreation. Transport comes in many forms, including walking, cycling, and the use of motor vehicles and public transport.

The following direct and indirect health impacts arise from transport:

- opportunities for physical activity
- road traffic safety
- air pollution
- effects on communities
- noise levels
- climate change

¹ Impacts of transport on health – an overview. A summary prepared by the Public Health Advisory Committee, 2003.
www.nhc.govt.nz/PHAC/publications/SummaryofTransport&HealthPapers.pdf

4.1 Physical activity

New Zealand is currently facing an epidemic of obesity and diabetes in adults and children with a major risk factor being lack of regular physical exercise.

Transport arrangements can either create opportunities for physical activity or restrict opportunities by encouraging sedentary forms of transport such as cars. Sport and Recreation New Zealand recommends 30 minutes of moderate physical activity daily.

The potential for physical activity through walking and cycling is the most beneficial health impact of transport. Although walking and cycling are beneficial to health, these modes of transport are in decline, while motor vehicle use is increasing.

Public transport can also play a role in encouraging physical activity. On average, a journey by public transport requires a 10 minute walk. Thus, if a person uses the bus twice a day they will be physically active for 20 minutes, two-thirds of the required amount for health benefits.

4.2 Road traffic safety

Road traffic injuries represent the most obvious effects of transport on health. In 2003, road traffic accidents were responsible for 461 deaths and 14 372 injuries. Reducing disparities in health is one of the key priorities for the health sector. Road traffic injuries contribute to increased disparities. For example, the risk of being hospitalised as a result of a road crash is three times higher for Maori and Pacific drivers in comparison with other drivers.

4.3 Air quality

Transport is a significant source of air pollution. The death toll attributed to vehicle emissions is estimated to be 400 deaths per year.

Several contaminants produced by vehicles are known to damage air quality and affect physical and mental health. For example, carbon monoxide is associated with increased hospital admissions and mortality from cardiovascular disease, and fine particulate matter exacerbates respiratory conditions such as asthma and bronchitis.

4.4 Effects on communities

Transport can have both positive impacts on health, such as facilitating social support and negative impacts, such as damaging health through community severance.

Community severance arises when roads carrying high levels of traffic cut through residential neighbours. It creates indirect health effects, for example disruption of social networks and reduced social support, thereby affecting health.

4.5 Noise levels

There is growing scientific evidence on the detrimental effects of noise on health outcomes, including physical and mental wellbeing. The health effects of noise include impaired communication, disturbed sleep, impaired school and work performance, depression and aggression. According to the World Health Organisation, transport is the main source of noise pollution in Europe.

4.6 Climate change

There is clear evidence that most of the global warming of the past 50 years is due to human activity. Motorised transport is a major contributor to climate change by producing emissions from the combustion of fossil fuel, particularly carbon dioxide.

In New Zealand, transport is responsible for more than 40 percent of the total carbon dioxide released into the atmosphere.

5. Communication

There is nothing to communicate.

6. Recommendations

That the Committee:

- i) Play a stronger role in promoting the benefits of 'free modes' of transport such as walking and cycling. Increasing the use of these active modes of transport will have a direct effect on population and personal health as well as contributing to a cleaner environment.*
- ii) Play a key role in actively increasing and promoting the use of public transport.*

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