

# Sustainable Health Review

RAC's Response to the Western Australian  
State Government's Review

**October 2017**



**For the better**

# Sustainable Health Review

Thank you for the opportunity to respond to the Western Australian Government's Sustainable Health Review (Review). The Review's public consultation stage is an important step, as is, the evaluation of the sustainability of the State's health system and its capacity to continue to provide a level of care commensurate with the high standard of living we enjoy. RAC is pleased to provide this response on behalf of its 970,000 Western Australian members.

## About RAC

We are a leading advocate on the mobility issues and challenges facing our State and we work collaboratively with all levels of Government to ensure Western Australians can move around safely, easily, and in a more sustainable way.

RAC aligns its activities with the following three themes:

- › **Safe** - We want to reduce the number of road deaths and serious injuries;
- › **Accessible** - We want to reduce the cost of congestion and keep the cost of transport down;
- › **Sustainable** - We want to reduce the impact of CO<sub>2</sub> emissions from private vehicles.

We reinvest our profits for the benefit of our members, by supporting major community programs such as RAC's Rescue helicopters and demonstration trials, such as RAC's Automated Vehicle Trial and RAC's electric bike trials.

## About our submission

Our economy and the quality of life Western Australians enjoy are inextricably linked to our transport system and the way we choose to move around our State.

The ability to access a range of safe, convenient and affordable transport options is important in supporting liveable and productive cities. It also has an essential role in reducing the adverse impacts of road trauma, congestion, physical inactivity and vehicle emissions on our health and wellbeing, which in turn can positively impact the State's health system and reduce the burden on the State's health expenditure.

Our response to the Review is divided into two parts:

1. The impact of mobility and transport related factors on our health and consequently on our health system; and
2. The potential ways that a safer, easier and more sustainable transport system could improve our health and reduce the burden on our health system.

## The financial impact of mobility and transport related factors on the health system

### Road Trauma

In 2016, WA recorded 195 road fatalities, at a rate of one life lost nearly every two days. More concerning is that there were nearly 1,500 injuries as a result of road crashes. WA has the unenviable position of having the poorest road safety performance of all mainland Australian states and in 2015, we fell behind the national fatality rate of 5.1, which was above Victoria's leading rate of 4.2 and New South Wales' rate of 4.6 fatalities per 100,000 persons.

**! Road fatalities and injuries are preventable, however, in WA from 2012 to 2016, a total of 882 lives were lost, nearly 16,000 people were admitted to hospital and approximately 10,000 of them were seriously injured. Further 1,095 people suffered critical injuries requiring long term care and rehabilitation.**

For every fatality and injury, there is a social as well as a financial cost to the health system. RAC's own analysis based on publically available data and reports has shown that in the last ten years, road trauma has incurred the avoidable cost of \$921 million to the State health system alone. For every fatality that occurs at the scene of a crash or on the way to the hospital, it costs on average, \$1,100 per person and should a fatality occur in hospital, it costs \$17,500 per person. For hospitalised injuries and high threat to life injuries, the average cost range between \$12,000 and \$25,000 per person. According to the Independent Hospital Pricing Authority, the average cost of staying in hospital per day in WA is \$2,400<sup>1</sup>, and that the average length of stay for persons seriously injured in road traffic crashes is on average five to 12 days. In its 2016 report on the cost of injury in WA, the Department of Health found that the average cost of an injury to the health sector is \$6,500 per person.

<sup>1</sup>Independent Hospital Pricing Authority (2017) Australian public hospitals cost report 2014-2015 round 19. Retrieved on 28/09/2017 from <https://www.ihpa.gov.au/publications/national-hospital-cost-data-collection-public-hospitals-cost-report-round-19-financial>



Photograph: Matthew Poon

Funded by the State Government, the RAC Rescue helicopters are managed by the Department of Fire and Emergency Services (DFES).

**!** In the last ten years, the cost of road trauma to the State health system was \$921 million. This figure does not include the cost of injury over the course of a person's life, catastrophic injuries and the cost to other public agencies such as WA Police and Main Roads WA.

Should the injury affect a person aged over 85 years, the cost of injury increases to over twice the average calculated cost<sup>2</sup> and should the crash occur in the regional areas, the cost is 4.5 per cent more than for patients in metro areas<sup>3</sup>.

These costs are only a snapshot of the overall cost of road trauma and do not include the ongoing cost of injury over the course of a person's life, catastrophic injuries, and costs to other public agencies such as WA Police and Main Roads WA. Accounting for the true cost of these injuries is made more difficult with the limited availability, accessibility of road trauma data and further the disparate nature of data collection in WA.

### Physical inactivity

Inadequate physical activity is known to be a contributory factor to a range of diseases including heart disease,

hypertension, stroke, depression, diabetes, osteoporosis, cancer and dementia<sup>4</sup>. The World Health Organisation has identified physical inactivity as the fourth leading risk factor for global mortality, with approximately 3.2 million deaths worldwide being attributable to this<sup>5</sup> (six per cent of total deaths globally).

Australia is no different, with physical inactivity being identified as the fourth most burdensome risk factor<sup>6</sup>, accounting for five per cent of the total burden of disease and injury nationally in 2011. It was also estimated that a total of 201 years of life were lost due to premature death or living with disease or injury for every 1,000 people in Australia in 2011. Of this, 31 per cent of the burden was preventable – meaning 62 years could have been saved if controllable risk factors such as physical inactivity were addressed.

A recent University of Sydney study<sup>7</sup> found that physical inactivity cost the Australian economy \$805 million in 2013; this includes \$640 million in direct costs (healthcare expenditure) and \$165 million in indirect costs (due to the impact on people's productivity). The total loss in tax revenue through public healthcare expenditure was also estimated at \$425 million.

<sup>2</sup> Department of Health WA (2016) The Incidence and Costs of Injury in Western Australia 2012. Retrieved on 29/09/2017 from <http://www2.health.wagov.au/-/media/Files/Corporate/Reports%20and%20publications/Cost-of-injury/Incidence-and-costs-of-injury-in-wa-shx>

<sup>3</sup> Independent Hospital Pricing Authority (2016) Australian public hospitals cost report 2013-2014 round 18. Retrieved on 29/09/2017 from <https://www.ihpa.gov.au/sites/g/files/net636/t/publications/nhcdc-round18.pdf>

<sup>4</sup> Litman, T. (2017) Evaluating active transport benefits and costs. Guide to valuing walking and cycling improvements and encouragement programs. Victoria Transport Policy Institute. Retrieved on 27/09/2017 from <http://www.vtpi.org/nmt-tdm.pdf>

<sup>5</sup> WHO (2017) Global Strategy on Diet, Physical Activity and Health. Retrieved on 27/09/2017 from [http://www.who.int/dietphysicalactivity/factsheet\\_inactivity/en/](http://www.who.int/dietphysicalactivity/factsheet_inactivity/en/)

<sup>6</sup> Australian Institute of Health and Welfare (AIHW) (2016) Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Australian Burden of Disease Study series no. 3. BOD 4. Canberra: AIHW. Retrieved on 27/09/2017 from <https://www.aihw.gov.au/getmedia/d4df9251-c4b6-452f-a877-8370b6124219/19663.pdf.aspx?inline=true>

<sup>7</sup> Ding, D., Lawson, K.D., Kolbe-Alexander, T.L., Finkelstein, E.A., Katzmarzyk, P.T., Van Mechelen, W. & Pratt, M. (2016) The economic burden of physical inactivity: a global analysis of major non-communicable diseases. *Lancet*. 2016; 388: 1311-1324.

Encouraging increased participation in moderate-intensity daily physical activity, for at least the recommended 150 minutes each week for adults aged 18-64, is therefore extremely important for the primary prevention of chronic diseases. Yet more than half of all adults in Australia are not active enough<sup>8</sup>.

**! In 2016, car (as driver or passenger) was the most common method of travel to work for employed residents in Greater Perth, at 68.7 per cent. Only 3.1 per cent travelled by active modes of transport (1 per cent by bicycle and 2.1 per cent by walking only) and 6.5 per cent by bus or train<sup>9</sup>. However, almost 18 per cent of Perth residents ride in a typical week for any purpose<sup>10</sup>.**

There are many factors which influence levels of physical activity, however it is widely accepted that walking and cycling for transport, as well as making short journeys to access public transport, local services and amenities has a significant impact on incidental physical activity levels. This is influenced by not only the availability of transport infrastructure and services, but also the planning and design of our cities and communities, providing opportunities to integrate physical activity as part of our daily routines.

### Emissions from vehicles

The significant impact of vehicle emissions on our health is also of a preventative nature. Air pollution is made up of a number of pollutants including carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO) oxides of nitrogen (NO<sub>x</sub>) and particulate matter (PM) and has been linked to a number of serious illnesses including cardiovascular diseases, lung cancer, and cardiopulmonary disorders<sup>11</sup>. It is estimated that approximately 3,000 deaths are caused by air pollution each year in Australia<sup>12</sup>, with 1.3 per cent of all deaths and a further 0.6 per cent of all injury and disease being attributable to this. Almost six per cent of deaths caused by coronary heart disease, 4.8 per cent of stroke deaths and 0.7 per cent of lung cancer deaths are caused by air pollution<sup>13</sup>. The OECD states that deaths from air pollution across Europe reduced between 2005 and 2010, while Australian deaths rose over the same period<sup>14</sup>.

A study conducted in Melbourne suggests three per cent of all asthma hospitalisations were related to nitrogen dioxide (NO<sub>2</sub>) exposure, and approximately four per cent of asthma hospitalisations in children were related to PM in the air<sup>15</sup>. It is also increasingly considered that the impacts of NO<sub>x</sub> on public health have been largely underestimated<sup>16</sup>.

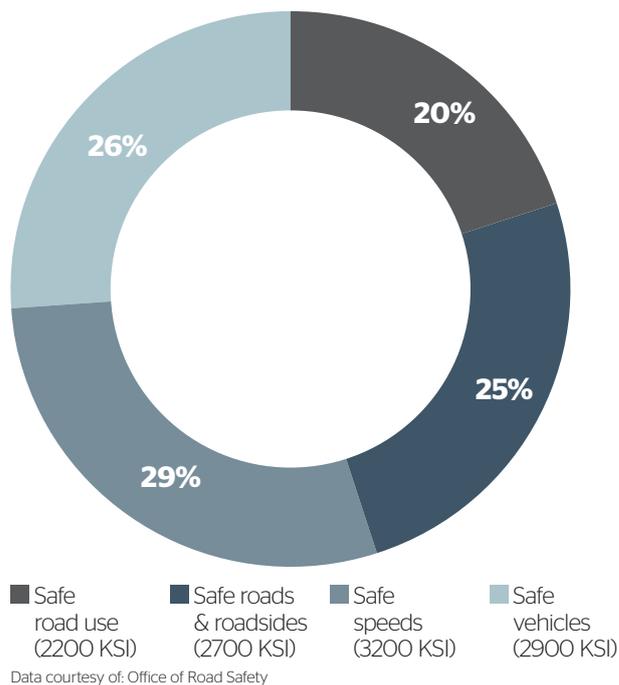
There are many contributable sources to the quality of the air, however, transport, particularly heavy and light vehicles, is a key source. In WA, transport accounts for 15.5 per cent of all greenhouse gas emissions<sup>17</sup>, with road transportation alone accounting for 11.5 per cent of total emissions in the State<sup>18</sup>.

### Reducing the burden on our health system through a safer, easier and more sustainable transport system

As discussed earlier, road trauma, physical inactivity and vehicle emissions have serious implications for community, and population-wide health.

RAC supports the State's Road Safety Strategy, *Towards Zero*, and advocates for a strong action plan which includes measurable targets and milestones with accountability measures to evaluate the current performance against the long term *Towards Zero* goal.

**Projected cumulative savings in number of people killed and seriously injured 2008-2020**



Successfully implementing the aspects of *Towards Zero*, over the life of the Strategy from 2008 to 2020, aims to achieve the projected cumulative savings in the number of people killed

<sup>8</sup> Commonwealth of Australia (2014) Make your move – Sit less, Be active for life! Retrieved on 10/10/2017 from [https://www.health.gov.au/internet/main/publishing.nsf/content/F01F92328EDADA5BCA257BF0001E720D/\\$File/brochure%20PA%20Guidelines\\_A5\\_18-64yrs.PDF](https://www.health.gov.au/internet/main/publishing.nsf/content/F01F92328EDADA5BCA257BF0001E720D/$File/brochure%20PA%20Guidelines_A5_18-64yrs.PDF)

<sup>9</sup> ABS (2016) Census of Population and Housing, Cat. 20240. Retrieved on 25/10/2017 from [http://www.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/communityprofile/5GPER?opendocument](http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/communityprofile/5GPER?opendocument)

<sup>10</sup> Austroads (2017) National Cycling Participation Survey 2017: Western Australia.

<sup>11</sup> Pope, CA, & Dockery, DW. (2006) Health effects of fine particulate air pollution: lines that connect. *Journal of the Air and Waste Management Association* 56:709-742. Retrieved on 27/09/2017 <http://www.tandfonline.com/doi/pdf/10.1080/10473289.2006.10464485?needAccess=true>

<sup>12</sup> AIHW (2007) Australian burden of disease study: impact and causes of illness and death in Australia 2003. AIHW, Canberra. Retrieved on 27/09/2017 from <https://www.aihw.gov.au/getmedia/81b92b318a2-4669-aad3-653aa3a9f0f2/bodaia03.pdf.aspx?inline=true>

<sup>13</sup> AIHW (2016) op. cit.

<sup>14</sup> OECD (2014) The Cost of Air pollution: Health Impacts of Road Transport. OECD Publishing. Retrieved on 28/09/2017 from [http://www.keepeek.com/Digital-Asset-Management/oecd/environment/the-cost-of-air-pollution\\_9789264210448-en#page54](http://www.keepeek.com/Digital-Asset-Management/oecd/environment/the-cost-of-air-pollution_9789264210448-en#page54)

<sup>15</sup> AIHW (2016) op. cit.

<sup>16</sup> Department of Environment Food & Rural Affairs (UK) (2015) Updates in valuing changes in emissions of Oxides of Nitrogen (NO<sub>x</sub>) and concentrations of Nitrogen Dioxide (NO<sub>2</sub>). Retrieved on 27/09/2017 from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/460401/air-quality-econanalysis-nitrogen-interim-guidance.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/460401/air-quality-econanalysis-nitrogen-interim-guidance.pdf)

<sup>17</sup> Department of the Environment and Energy (2017) National Greenhouse Gas Inventory 2015. Retrieved on 27/09/2017 from <http://ageis.climatechange.gov.au/NGGI.aspx#>

<sup>18</sup> Department of the Environment and Energy (2017) Ibid.



and seriously injured. The Safe Systems approach recognises the need to ensure we have safe drivers in safe cars on safe roads at safe speeds to significantly reduce the number of fatalities and severity of injuries. There needs to be a concerted and combined effort by a number of agencies and industry to achieve the *Towards Zero* goal.

There is also a need for increased investment in safe and connected active transport infrastructure and behaviour change programs, as well as better planning of communities and enhanced access to public transport, to deliver an active and public transport future. The importance of this has been demonstrated through recent RAC surveys, including RAC's 2015 Cycling Survey of over 5,500 cyclists and non-cyclists. This highlighted safety concerns with sharing roads with motorists and the importance of Government investment in on and off-road cycling infrastructure (with 71 per cent and 64 per cent respectively identifying these as top priorities) to encourage increased cycling participation.

71%

**of respondents believe the State Government should prioritise building on improving the on-road cycling network (this was ranked first based on respondent's top three priorities).**

**Source: RAC Cycling Survey 2015**

There is ample evidence of the high return on investment (including from health and fitness improvements, air pollution and emission reductions and crash cost reductions) for both active transport infrastructure and travel behaviour change programs.

#### Benefits of investing in active transport

An evaluation of the WA State Government's Local Government and Workplace TravelSmart programs, delivered between 2000-01 and 2010-11, estimated a total combined net financial benefit to the Government of \$1.6 million per annual (benefit-cost ratio of 3.72)<sup>19</sup>. The financial benefits, or rather avoided costs, for the WA health system were estimated to be:

- › \$95,751 and \$115,441 for the Local Government and Workplace programs respectively (based on 2010-11 dollar values) from improved health and fitness; and
- › \$261,109 and \$314,803 respectively from the reduction in air pollution related illnesses.

RAC's 2012 *Economic Cycle - A business case for investment in cycling in Western Australia* publication showed that the rates of return on investment in cycling projects are higher than those achieved by many urban transport investments, including:

- › economic, social, health and environmental benefits for the community of between 3.4 and 5.4 times the costs incurred; and
- › financial returns in dollar terms are nearly twice the costs incurred because individuals who cycle more will spend less on travel costs and gains in health and fitness will result in savings on health system.

Internationally, an evaluation of past and planned investments in bicycle facilities in Portland, Oregon found that by 2040, investments in the range of \$138 to \$605 million will result in health care cost savings of \$388 to \$594 million<sup>20</sup>.

<sup>19</sup> Marsden Jacobs Associates (2011) Evaluation of the TravelSmart Local Government and Workplace Programs. Final Report, 27 July 2011.

<sup>20</sup> Gotschi, T. (2011) Costs and benefits of bicycling investments in Portland, Oregon, *Journal of Physical Activity and Health*, Vol. 8, Supplement 1, pp. S49-S58. Cited in: Litman, T. (2017) op. cit.

## Recommendations

The Terms of Reference for the Review recognise 'Value for money', 'Healthy lifestyles' and 'Partnerships across sectors' as being vital to achieving a sustainable future for health.

RAC's *State Budget Submission 2017-18* calls on the State Government to commit to essential programs and projects, and in recognising the role of these in preventative health and reducing pressure on health budgets, it is recommended that the Review considers how best to support their delivery.

There is a clear rationale for greater inter-governmental collaboration, as well as public-private partnerships, and this will help drive efficiencies, maximise the value of investments and achieve mutually beneficial outcomes.

It is recommended that the Review:

- » Identifies opportunities for partnerships to support and contribute funding towards the delivery of road safety and active and public transport infrastructure projects and behaviour change initiatives, recognising their important contribution to preventative health.
- » Explores the adoption of a set of shared Key Performance Indicators (KPIs) across relevant Government agencies relating to mobility, such as:
  - › Reduction in road deaths and serious injuries (particularly vulnerable road users);
  - › Increase in walking and cycling for transport;
  - › Increase in kilometres of cycling infrastructure;
  - › Number of households engaged in travel behaviour change programs;
  - › Increase in public transport patronage;
  - › Increase in access to public transport; and
  - › Reduction in air pollutants and emissions from private vehicles.

- » Explores how best to collate and publicly share, non-identifiable datasets relating to road trauma (all levels of severity and road user), physical inactivity and air pollution related death, disease and illness, similar to that which the Australian Institute of Health and Welfare releases at a national level.
- » Considers the need to develop a framework for evaluating the effectiveness of transport and road safety projects and initiatives in contributing to preventative health, to help inform investment decisions.

We thank the State Government for this opportunity to provide input to the Sustainable Health Review, which we envisage to be an important step in reducing the burden on WA's health system caused by road trauma, physical inactivity and emissions from transport. A copy of our *State Budget Submission 2017-18* is provided in support of our submission.





For further information please  
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