



# Avoidable hospitalisations: Helping our health system get through COVID-19

25 March 2020

George Thomson , Louise Delany, Nick Wilson

**While it is possible that New Zealand can use intense public health controls to eradicate COVID-19 from the country - we must also plan for other scenarios where thousands of New Zealanders are sick - including many urgently hospitalised.<sup>1</sup> Better resilience for our health system in the face of COVID-19 must include reducing current *avoidable* pressures that are not COVID-related. Emergency policies should include the reduction of preventable injuries that currently take a toll on hospital and health resources. These include those caused by alcohol, avoidable home accidents and road crashes. Increased alcohol prices, reduced sales hours, and reduced or banned advertising of alcohol would make significant and valuable differences for hospital staff, medical centres and patients. Even with reduced private road traffic, two immediate policies to help are (1) enhanced enforcement of existing alcohol limits for driving and (2) larger**

**speed camera fines. Mass media campaigns by ACC on preventable home accidents would also help.**



Image from [YouTube](#)

As emergency doctors in Alberta, Canada have written recently, 'system overload is not just about COVID-19. An overwhelmed system fails everyone: the trauma patients, the heart attacks, the cancer patients, the kids, all of us.'<sup>2</sup>

One constant for our already overloaded health system is the avoidable burden created by alcohol driven violence and injury, along with avoidable home accidents. In New Zealand more injuries happen at home than at work, on the roads or playing sport.<sup>3</sup> Even with bars closed and reduced traffic – alcohol and speed-related injuries are likely to continue to impose avoidable drains on our health system.

Hospital emergency departments (EDs) are a place where the results of health policy are seen most vividly. Much of the crowding and stress at EDs and other areas of the health system is directly related to injuries from alcohol use and from preventable injuries. New Zealand (NZ) Government policy on COVID-19 needs to quickly reduce this type of health system stress. The reduction of even 10% of the volume of ED patients would have beneficial flow-on effects through the health system.

## **What is the relation between alcohol and ED use?**

About 10% of ED patients in Australasia have alcohol-related 'injuries, intoxication, medical conditions (or) injuries caused by an alcohol-affected third party', and they are more likely to need immediate treatment.<sup>4</sup> In a study of Auckland ED patients, 16% of those with injuries were alcohol-related, and alcohol-related patients were more likely to have a longer stay than others.<sup>5</sup> In NZ, as elsewhere, the patients include the children who are injured.<sup>6</sup> NZ home injuries are much more likely after even light alcohol use.<sup>7</sup>

## **How can we reduce non-COVID-19 ED use?**

So in the time of COVID-19, when every significant effort needs to be made to reduce health system stresses and make the system more resilient, how can we quickly improve policies to get these changes? Areas where immediate change could save lives include changing the sales hours, pricing, and advertising of alcohol – all of which have direct relationships with the prevalence of injuries and violence. Lower alcohol limits for driving (ideally zero alcohol) and lower driving speeds would also help. Intensive media information on preventing major home accidents – falls, wounds, and poisoning – could help prevent unnecessary hospitalisation.<sup>8</sup> The Accident Compensation Corporation is well placed to fund and expedite this.

## **What works best to lower the impact of alcohol use on health?**

Research has found that 'restricting trading hours at on- and off-license premises was typically followed by decreases in the incidence of assault and hospitalization.'<sup>9</sup> A review of alcohol policies worldwide found 'the strategy that has the most immediate and largest impact has been highly publicised, visible, and frequent impaired-driving enforcement ..... Lowering legal blood alcohol concentration limits for driving ... has also had a world-wide impact.'<sup>10</sup> An overview of reviews found evidence for the effects from 'restricting alcohol advertising; ...; and increased price and taxation including minimum unit pricing.'<sup>11</sup> A review in the *Lancet* found that 'making alcohol more expensive and less available, and banning alcohol advertising, are highly cost-effective strategies to reduce harm'.<sup>12</sup>

## **Will these alcohol policies have net benefits for society?**

In evaluating any change to current alcohol policies, we need to remember the many other benefits to the NZ community from reduced population-level alcohol use – including reduced police attendance at accidents and fights, reduced violence to women and children, reduced alcohol-related offending (with effects for whānau, court time, prison space), reduced fetal alcohol effects, reduced health inequalities, reduced time off work, improved productivity, improved mental health,<sup>6 13</sup> reduced gambling, and more successful quitting from smoking.<sup>14 15</sup> But most of all, we need to consider the policies in the context of a potential major health system overload.

## Reduced maximum road speeds and ED use

Injuries from accidents are reduced by speed limits.<sup>16</sup> Lower urban speed limits have been shown to reduce injuries particularly among young children, and especially for serious injuries and injuries causing death (when compared to minor injuries).<sup>17</sup>

Some simple policies that would give immediate help for hospital services would be a maximum 90km speed limit on all non-motorway roads (lower where necessary), and a 40km maximum speed in urban areas (lower where necessary). Larger speed-camera penalties may be a quick way to help enforce this.

## Other indirect government policies to reduce the effects of COVID-19 on the health system

There is also an urgent need to consider prison policies to protect prisoners, staff, whānau and the wider public.<sup>18 19</sup> Government needs to consider ways to reduce prison population risks. Possible ways include starting to remove double bunking, improving prison health services and shifting more people onto home detention.

In summary, this blog has canvassed a range of ways to reduce the risk of health system (and particularly hospital) overload at a critical time for all of us. While we hope the current lockdown will allow COVID-19 to be eradicated from NZ – it is imperative that we apply all reasonable preventive strategies to keep our health system in the best prepared state possible, in case eradication fails and we face uncontrolled pandemic spread.

## References

1. Blakely A, Baker M, Wilson N. The maths and ethics of minimising COVID-19 deaths in NZ. Wellington: Public Health Expert, University of Otago, March 23, 2020. <https://blogs.otago.ac.nz/pubhealthexpert/2020/03/23/the-maths-and-ethics-of-minimising-covid-19-deaths-in-nz/>
2. Dhaliwal T. Coronavirus: 16 Southern Alberta emergency physicians sound alarm on potential system overload. Toronto: Global News, March 16, 2020. <https://globalnews.ca/news/6683749/alberta-emergency-physicians-coronavirus-health-system-overload/>
3. Safe Communities Foundation NZ. Home Injuries and Prevention. Auckland: Safe Communities Foundation NZ, February 2016. [https://www.safecommunities.org.nz/application/files/5714/8115/5858/Fact\\_Sheet\\_4.pdf](https://www.safecommunities.org.nz/application/files/5714/8115/5858/Fact_Sheet_4.pdf)
4. Egerton-Warburton D, Gosbell A, Moore K, et al. Alcohol-related harm in emergency departments: a prospective, multi-centre study. *Addiction* 2018;113(4):623-32.
5. Svensen G, Kool B, Buller S. The burden of alcohol-related presentations to a busy urban New Zealand hospital emergency department. *N Z Med J* 2019;132(1504):56-66.
6. Wilson N, Imlach Gunasekara F, Thomson G. The benefits and harms of alcohol use in New Zealand: what politicians might consider. *N Z Med J* 2011;124(1336):85-9.
7. Thornley S, Kool B, Robinson E, et al. Alcohol and risk of admission to hospital for unintentional cutting or piercing injuries at home: a population-based case-crossover study. *BMC public health* 2011;11:852.
8. Kool B, Chelimo C, Robinson E, et al. Deaths and hospital admissions as a result of home injuries among young and middle-aged New Zealand adults. *N Z Med J*

2011;124(1347):16-26.

9. Nepal S, Kypri K, Tekelab T, et al. Effects of Extensions and Restrictions in Alcohol Trading Hours on the Incidence of Assault and Unintentional Injury: Systematic Review. *J Stud Alcohol Drugs* 2020;81(1):5-23.
10. Fell JC. Approaches for reducing alcohol-impaired driving: Evidence-based legislation, law enforcement strategies, sanctions, and alcohol-control policies. *Forensic Sci Rev* 2019;31(2):161-84.
11. Siegfried N, Parry C. Do alcohol control policies work? An umbrella review and quality assessment of systematic reviews of alcohol control interventions (2006 – 2017). *PLoS One* 2019;14(4):e0214865.
12. Anderson P, Chisholm D, Fuhr DC. Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *Lancet* 2009;373(9682):2234-46.
13. Expert Advisory Group on solutions to child poverty in New Zealand. How Substance Abuse, Problem Gambling and Family Functioning Impact on Child Poverty. Wellington: Office of the Childrens' Commissioner, August 2012. Accessed March 21, 2020. <https://www.occ.org.nz/assets/Uploads/EAG/Working-papers/No-20-How-substance-abuse-problem-gambling-impact.pdf>
14. Kahler CW, Borland R, Hyland A, et al. Alcohol consumption and quitting smoking in the International Tobacco Control (ITC) Four Country Survey. *Drug Alcohol Depend* 2009;100(3):214-20.
15. Wilson N, Weerasekera D, Kahler CW, et al. Hazardous patterns of alcohol use are relatively common in smokers: ITC Project (New Zealand). *N Z Med J* 2012;125(1348):34-41.
16. Elvik R. A before-after study of the effects on safety of environmental speed limits in the city of Oslo, Norway. *Safety Science* 2013;55:10-16.
17. Grundy C, Steinbach R, Edwards P, et al. Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis. *BMJ* 2009;339:b4469.
18. Liebrez M, Bhugra D, Buadze A, et al. Caring for persons in detention suffering with mental illness during the Covid-19 outbreak. *Forensic Science International: Mind and Law* 2020:(Journal pre-proof).
19. Kinner S, et al. Prisons and custodial settings are part of a comprehensive response to COVID-19. *The Lancet: Public Health* 2020:DOI:[https://doi.org/10.1016/S2468-667\(20\)30058-X](https://doi.org/10.1016/S2468-667(20)30058-X).

Public Health Expert Briefing (ISSN 2816-1203)

---

**Source URL:**

<https://www.phcc.org.nz/briefing/avoidable-hospitalisations-helping-our-health-system-get-through-covid-19>