

# **Strategies to reduce alcohol-related** harms in Tasmania



# **Key messages**

- We have developed a dynamic simulation model that serves as a 'what-if' tool to test the likely impacts over time of a range of policies and programs to reduce alcohol-related harms in Tasmania.
- The model provides a logically consistent framework that integrates best available evidence, data and expert knowledge.
- The model may assist policy makers and program planners, as part of a suite of considerations, in determining what combinations of interventions could achieve both short-term (acute) and longer-term (chronic) reductions in alcohol-related harms.
- Using a participatory process to develop the model meant we were able to engage stakeholders across many sectors in Tasmania who are central to decision-making about alcohol-related harms.
- Broad policy responses to alcohol harms, such as reducing the availability of alcohol, can have a larger impact than a health sector response alone.

The Project: A dynamic simulation model to test strategies to reduce alcohol-related harms in Tasmania

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Project end: December 2017

# Why is the issue important?

In Tasmania, as elsewhere, alcohol causes a significant amount of harm, both as a result of single occasion binge drinking<sup>1</sup> or from chronic regular drinking.<sup>2</sup> In 2014–15, Tasmania had the second highest proportion of adults drinking above the recommended level for lifetime risk, at 19.1 per cent, while the national average was 17.3 per cent. It also has the highest proportion of all jurisdictions for single occasion risky, or binge, drinking rates, at 49.2 per cent, compared to the national level of 45.0 per cent.<sup>3</sup>

Alcohol-related harm is a complex problem. Many multi-level risks contribute, but it is not clear how they interact or which are most important to address. In addition, there is a broad range of options for intervening, but we do not know the likely combined effects. Choosing the most appropriate strategies can be challenging due to the complex nature of drinking behaviour, the potential for unintended consequences, and the various political, public and alcohol industry agendas.

A new Tasmanian Alcohol Action Framework, which provides strategic direction for reducing alcohol-related harm in Tasmania, is currently in development. This provided an opportunity to prioritise options for intervening.

## What did we do?

The Prevention Centre, in partnership with the Department of Health and Human Services Tasmania, used participatory dynamic systems modelling. This approach fostered stakeholder engagement and input from a diverse range of experts.

### The model development process included:

Expert stakeholders mapped the complex factors relating to both binge drinking and lifetime risk drinking behaviours in Tasmania A conceptualisation of the model was developed

The conceptualisation was converted into a computational model, using existing research evidence, program data and expert knowledge from multidisciplinary stakeholders The model was tested, validated and refined, in consultation with stakeholders

# What did we find?

- 1. Far greater impact can be achieved with a broad policy response rather than a health sector response alone.
- 2. Restricting the growth of licences by 50%, imposing minimum pricing and early closing (3am)\* would deliver the greatest impact on acute alcohol-related harms.
- 3. Licence density restrictions and minimum pricing implemented in 2018 would deliver the greatest impact on alcohol-related chronic disease, especially in males with chronic alcohol use disorder. This impact would not be seen until approximately 2027.
- 4. The combined effects of licence density restrictions, minimum pricing, early closing (3am)\* and a scale-up of alcohol treatment services implemented simultaneously in 2018 are likely to deliver a substantial impact in reducing health system burden, with impacts seen as early as 2019.
- 5. Significant impacts can be achieved by only implementing the two licensing reforms (restricting the density growth by 50% and implementing early closing at 3am\*) without scaling up any other existing or new interventions.
- 6. Small community-based programs scaled up, such as the Good Sports Program, can have a large impact on acute harms.
- 7. The overall effect of interventions in combination on acute-related harms is less than the sum of the interventions simulated individually.

\*Note, the impact of this intervention (early closing at 3am) may be overstated in the model as a number of licensees do not consistently remain open until 5am. Further data collection is required.

# What did we produce?

The final products included:

- A model that can be used as a decision tool to forecast the likely effects of new and scaled-up existing interventions (individually and in combination) to reduce alcohol-related harms. The tool forecasts the impact on both acute and chronic alcohol-related harms
- An online interface to enable local scenario testing and inform the development of a new Tasmanian Alcohol Action Framework
- A model user guide for stakeholders. This describes the development of the model and provides instructions and guidance on its usage, through screenshots and explanation of the model and its interface.

# Why does it matter?

This project strengthened Tasmania's cross-sectoral efforts to reduce alcohol-related harm. There was active participation of representatives from central and regulatory policy agencies who prior to this project had limited interaction with program planners and multidisciplinary researchers.

Initial insights from the model have provided an indication of the types of interventions that are likely to deliver the greatest future reductions in both acute and chronic-related harms in the Tasmanian population.

## **Next steps**

The model is being used by the Alcohol Advisory Group and the Interagency Working Group on Drugs to inform the development of Tasmania's next Alcohol Action Framework.

# References

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- 2. Gilmore W, Chikritzhs T, Stockwell T, Jernigan D, Naimi T, et al. Alcohol: taking a population perspective. Nat Rev Gastroenterol Hepatol. 2016 Jul;13(7):426–34.
- 3. Department of Health and Human Services Tasmania. Tasmanian Alcohol Data and Trends Report 2016. Hobart: DHHS, Tasmanian Government; 2017.



## The Australian Prevention Partnership Centre

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