

# Easier access to nicotine vaping products likely to improve public health and reduce health system costs, study says

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## Will liberalising access to e-cigarettes improve the health of Australians?

CURRENT SMOKING RATES of New Zealand adults currently smoke<sup>2</sup>



1.5%, 0.8% and 0.2% among current, ex and never smokers, respectively.3



E-cigarettes deliver NICOTINE to the body from a VAPORISED **SOLUTION** and are **LESS HARMFUL** to health than smoking.

The regulation of vaping products varies around the globe, with the UK and the US having relatively liberal regimes, while Australia, Thailand and Singapore have various types of



by BUYING ON THE INTERNET.

#### Legalising access to e-cigarettes could lead to:



an estimated 236,000 quality adjusted life years (QALYs) gained by the New Zealand population alive in 2011.

#### This health gain is equivalent to:



19 days of healthy life per person alive over the remainder of their lives



The health gain from 10% per annum over 15 years tax increases on tobacco



A health system saving of about \$815 per person alive over the remainder of their lives (AUD\$ 2016)4

#### HOW CERTAIN ARE THESE FINDINGS?

There is still much uncertainty about future health impacts of long-term use of e-cigarettes.\*

The two biggest drivers of uncertainty were:

- The relative health harm of e-cigarettes compared to tobacco smoking
- The impact of liberalizing access to e-cigarettes on overall smoking cessation rates

 $^*$ The authors explicitly modelled all major sources of uncertainty, estimating a 95% range of QALY gains in NZ of 27,000 to 457,000 – a wide range, but excluding a scenario of health

#### WHAT'S NEXT?



World leading research by Otago (NZ), Queensland and Melbourne universities suggests CAUTIOUS IMPLEMENTATION of liberalised access to NICOTINE **CONTAINING E-CIGARETTES** is the best way forward. Policy implementation should not be in isolation, but ACCOMPANIED BY OTHER POLICIES that will make health gain more likely.

Further research is needed on the IMPACT OF VAPING ON QUITTING SMOKING, on the RELATIVE HARM TO HEALTH OF VAPING and on the IMPACT OF E-CIGARETTES ON YOUTH SMOKING RATES, given they drive the uncertainty in estimating

Stronger tobacco control policies that denormalise smoking and reduce supply will positively enhance the impact of greater access to e-cigarettes.

Petrović-van der Deen FS, Wilson N, Crothers A, Cleghorn CL, Gartner C, Blakely T. Potential country-level health and cost impacts of legalizing domestic sale of vaporized nicotine products. Epidemiology: 2019.

- $1. \ National \ Health \ Survey: First \ Results, 2017-18. \ https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.001 \sim 2017-18 \sim Main\%20$ Features~Smoking~85
- 2. NZ Health Survey 2017-18. https://minhealthnz.shinyapps.io/nz-health-survey-2017-18-annual-data-explorer/\_w\_37f19f89/#!/home
- 3. Source: National Drug Strategy Household Survey 2016 4. Equivalent to \$300 per person at 3% annual discount rate







Credit: University of Melbourne

Easier access to e-cigarettes containing nicotine is highly likely to lead to health gains and cost savings in the health sector, Australian and New Zealand researchers have found.

The research modelled what would happen if the number of people in New Zealand who vape increased due to greater access to nicotine-containing <u>e-cigarettes</u> compared to current patterns of use. Researchers say the results are applicable to Australia.

Published in *Epidemiology*, the study found that the most likely outcome is a health benefit equivalent to adding an extra 19 healthy days to the life of each living New Zealander, due to the health gained by those who quit smoking due to taking up vaping.

Due to uncertainty about the impact of long-term <u>e-cigarette</u> use, the average gains per person ranged from 2-37 healthy days – but it was clear that the overall health impact was positive under realistic assumptions.

The likely NZ\$3.4 billion (AUD\$3.27 billion) cost savings (range NZ\$370 million-\$7.1 billion [AUD\$356 million-AUD\$6.8 billion]) resulted from fewer people developing tobacco-related diseases because e-cigarettes are less harmful than smoking, although they are not risk-free.

The UK and USA have relatively liberal regulations over the sale of these products, while Australia, Thailand and Singapore have various



bans. Restrictions have been recently relaxed in New Zealand, allowing adults to access nicotine vaping products without a prescription.

University of Melbourne professor and senior author Tony Blakely said the results provided important learnings for Australia. "New Zealand and Australia are reasonably similar in disease and smoking rates," he said.

"The New Zealand best estimate of health gain is equivalent to 19 days of healthy life per person alive over the remainder of their lives – a measure we can probably transport across the Tasman."

The study's health gains were similar to those from well-established public health interventions, such as a 10 per cent annual tobacco tax increase for 15 years, or a national colorectal cancer screening program.

"Policy making regarding e-cigarettes is challenging," Professor Blakely said. "Nevertheless, our study points to cautious liberalisation of access to e-cigarettes as the best way forward. That <u>policy</u> implementation should not be in isolation but accompanied by other policies that will make health gain more likely."

The researchers recommend that vaping product sales include expert advice on how to use them, such as the best type of device and the appropriate nicotine concentration.

Co-author and University of Queensland researcher, Associate Professor Coral Gartner said the findings supported New Zealand's new regulatory approach that kept vaporised nicotine products excise tax free and cheaper than smoking.

"Accompanying regulations to minimise the risks of youth uptake of vaping are needed including restrictions on marketing and where the products can be sold," Associate Professor Gartner says.



"Moreover, strengthened policy on tobacco cigarettes, such as reducing the number of retail outlets, could work in tandem with greater access to nicotine <u>vaping</u> products to achieve maximal health gains."

**More information:** Frederieke S. Petrović-van der Deen et al. Potential country-level health and cost impacts of legalizing domestic sale of vaporized nicotine products, *Epidemiology* (2019). DOI: 10.1097/EDE.00000000000000975

### Provided by University of Melbourne

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