

A better way to estimate Australia's future lifestyle-related cancers

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UNSW's Centre for Big Data Research in Health has a new and improved way to estimate the numbers of cancers that could be avoided if Australians changed their lifestyles.

Cancer [risk factors](#) and their combinations can now be reliably ranked by importance to Australians, allowing cancer prevention strategies to better target behaviours and communities.

A large collaborative study led by UNSW's Centre for Big Data Research in Health applied a new and improved approach to comprehensive data from 370,000 Australians to estimate the numbers of cancers that could be avoided if Australians changed their lifestyles.

It showed that factors moderately associated with cancer risk but very prevalent in Australia, like [excess body weight](#), can have a significant impact on the future burden of cancer.

Australia could avoid 74,000 cancers over the next 10 years if everyone was a healthy weight.

This information, published in the medical [health](#) journal *BMJ Open*, could transform national cancer prevention strategies, Dr Maarit Laaksonen says.

"It would allow groups to consider, if we want to reduce a certain cancer in Australia, which risk factor should we best target?" Dr Laaksonen says.

"Also, we can look at sub-groups and ask, is the cancer burden more pronounced in men or women, in certain age groups, or socio-economic groups?"

"It allows you to do all that and thus target prevention activities where they can do the most good, identifying the most vulnerable populations."

The study also demonstrated how some risk factors are related, like smoking and [excessive alcohol consumption](#).

Of the tobacco- and alcohol-related cancers, 40,000 could be avoided in the next 10 years if no one smoked or drank more than two alcoholic drinks per day.

This figure was overestimated by 10,000 in calculations based on prior methods that assumed these risk factors acted independently, and did not account for dying from another health condition related to these factors.

These relationships should not be ignored to obtain a realistic estimate of the preventable numbers of future cancers.

Other areas planned for research include physical activity, diet and use of oral contraceptive and [menopausal hormone therapy](#).

Dr Laaksonen says because these lifestyle-related risk factors are common to other conditions, like diabetes and cardiovascular disease, further work could also inform strategies to reduce the overall burden of chronic disease in the community.

A roundtable is being planned for later this year to discuss the findings and their use in [cancer](#) prevention and health promotion in Australia.

More information: Arriaga ME, Vajdic CM, Canfell K, et al The burden of cancer attributable to modifiable risk factors: the Australian cancer-PAF cohort consortium. *BMJ Open* 2017;7:e016178.
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