

Five commonly over-diagnosed conditions and what we can do about them

Written by Ray Moynihan, Senior Research Fellow, Bond University



Some conditions should be classified as normal in some people and don't need treatment. from www.shutterstock.com.au

Today five influential Australian health-care organisations – representing professionals, the public and policy makers – have [released a statement](#) outlining that some medical conditions are being diagnosed too often, and calling for action to tackle over-diagnosis and the over-treatment it produces.

Over-diagnosis occurs when someone is diagnosed with a disease that wouldn't harm them, or when treatment does more harm than good. It happens because healthy people are often tested or screened to find the early signs of disease, and because diagnostic technology can see ever-smaller abnormalities.

The problem is that early detection of disease is a double-edged sword. While it can be life-saving, for some people the “abnormalities” that are diagnosed and treated would never have caused harm if left alone.

Researchers are [currently investigating](#) the size of this problem, and how many people are over-diagnosed. But [existing evidence](#) from Australia and elsewhere suggests it's a problem across a lot of conditions.

Thyroid cancer

Researchers documented in [The New England Journal of Medicine last year](#) that Australia, like other nations including the United States, has experienced a recent tripling of the numbers of people diagnosed with thyroid cancer - many of them with very small tumours.

The problem is, as the researchers explain, many of those small tumours are in fact benign, and many of the people being diagnosed, and then treated with potentially risky operations and drugs, are over-diagnosed.

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The [NEJM piece](#) estimated over 500,000 people may have been over-diagnosed in the past two decades, across 12 countries, including 10,000 people in Australia.



Some thyroid cancers which are operated on don't need to be, as they're benign. from www.shutterstock.com

ADHD

There are [on-going debates](#) about whether too many children are being diagnosed with and medicated for attention deficit hyperactivity disorder.

[A study](#) of almost one million Canadian children found those born in December were much more likely than those born in January to receive an ADHD diagnosis and medication, which could mean immaturity is being pathologised. Researchers concluded:

These findings raise concerns about the potential harms of over-diagnosis and over-prescribing.

Prostate cancer

Concerns about over-diagnosing prostate cancer date back at least 30 years. Many men will [die with prostate cancer, rather than of it](#)

. Despite evidence of unnecessary diagnoses and over-treatment, the push to test healthy men, with no symptoms, for prostate cancer continues.

While it's hard to know exactly how many Australian men are over-diagnosed with prostate cancer, [recently reported estimates](#) from the US suggest between 20-50% of prostate cancers diagnosed via screening (during the period of screening) may be over-diagnosed – in other words they would not have caused harm if left undetected.

Read more: [Most people want to know risk of overdiagnosis, but aren't told](#)

[Costly and harmful: we need to tame the tsunami of too much medicine](#)

[Resisting expanding disease empires: why we shouldn't label healthy people as sick](#)

Polycystic ovary syndrome

Polycystic ovary syndrome is an example of a condition where changes in the definition have greatly expanded the number of people potentially labelled. In a [piece published today](#) in the British medical journal, the BMJ, Tessa Copp and colleagues from the University of Sydney show how the proportion of women of reproductive age who could potentially be labelled has jumped dramatically from around 5% using the 1990 definition, to up to 21% when using the 2003 definition.

As the authors suggest, there are concerns many healthy women may be labelled unnecessarily, causing anxiety about their fertility or long-term health. The authors therefore recommended a cautious approach to diagnosing the condition.

Breast cancer

Reflecting uncertainty around exactly how to measure over-diagnosis, there are sometimes wide variations in estimates of the size of the problem. A [major independent review](#) of the global evidence suggested 19% of the breast cancers diagnosed during active mammography screening may be over-diagnosed. This means they would not have caused harm to the women because they may be benign.

[Previous estimates in Australia](#) suggest the rate could be around 30%.

What can we do about over-diagnosis?

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Together with colleagues Thanya Pathirana and Justin Clark, we've today published a [comprehensive analysis](#) in the BMJ of possible drivers of over-diagnosis and potential solutions. Causes range from cultural beliefs that "more is better" in medicine, to financial incentives driving unnecessary tests and treatments.

The good news is doctors' groups across the globe – including in Norway, Britain, Canada and now Australia – are now publicly acknowledging the problem of overdiagnosis.

As our [BMJ analysis](#) highlights, there are many potential solutions. There's an urgent need for public information and awareness campaigns. New educational curricula for health professionals are a priority. And screening programs need to be reformed to make sure we're only targeting those at high risk.

Dr Ray Moynihan receives grant funding from the Australian National Health and Medical Research Council, is co-chair of the scientific steering committee for the international Preventing Overdiagnosis conference, and was chair of the planning committee which organized the National Summit on Overdiagnosis in Australia.

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