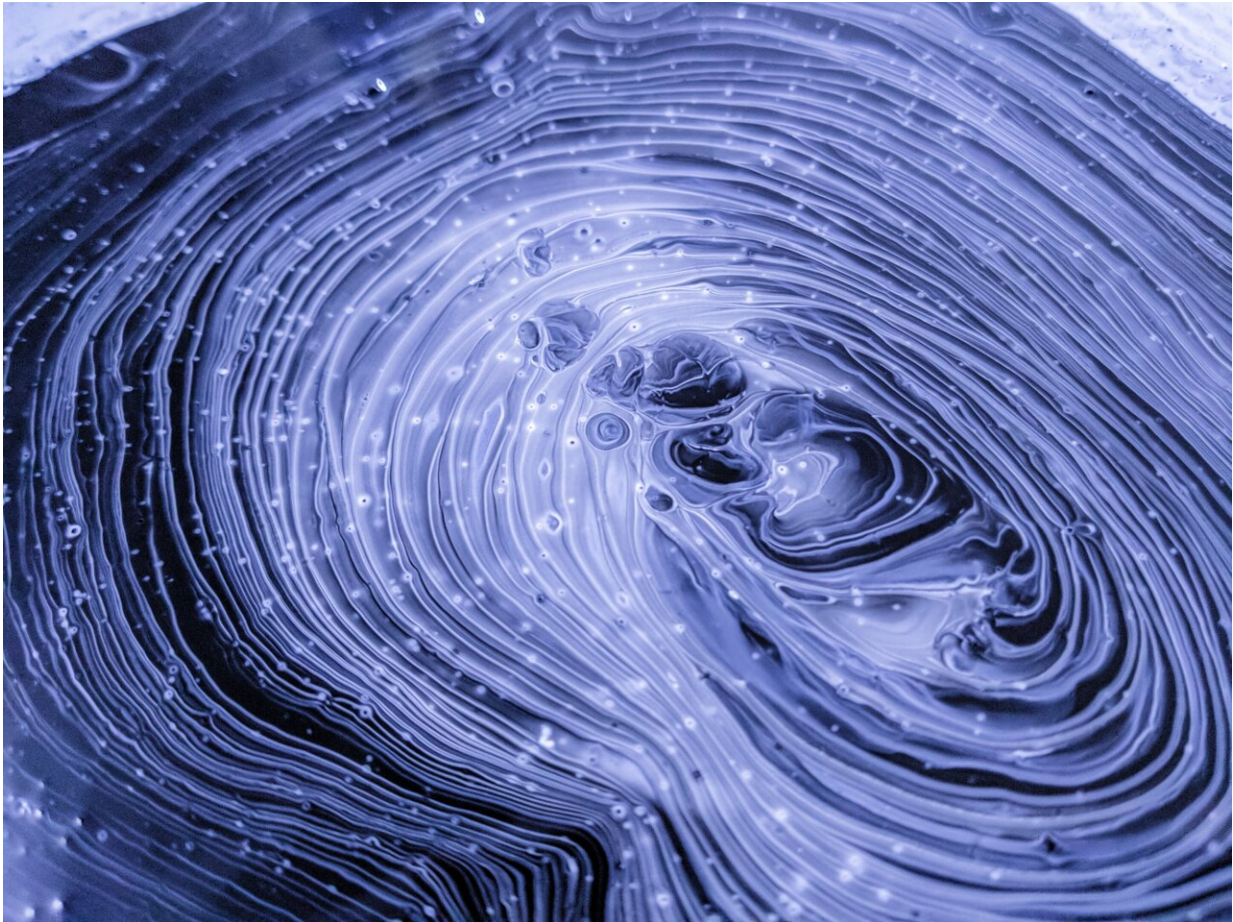


Is child obesity really going to shorten lives?

November 4 2022, by Tim Olds



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Rising life expectancy is one of the great success stories. If you were born in 1870, you'd expect to live until you were 30. But if you were born today, you'd [expect](#) to live to 72, and the UN predicts it will

continue to rise to 82 years by 2100. [Australian](#) life expectancy is currently 84.

There is the occasional blip—world wars, famines, pandemics (even COVID seems to have knocked a year or so off [life expectancy globally](#))—but over time, it just goes marching on.

That's why I was surprised to read a [report from Health and Wellbeing Queensland](#), a [government agency](#), suggesting life expectancy would fall by 0.6-4.1 years for children born in Queensland next year. According to the [report](#), the problem is obesity.

While being overweight and obese increases your risk of serious diseases, it doesn't mean children born in Queensland or the rest of Australia will have a shorter life expectancy.

Child obesity isn't rising much, but we get heavier as we age

The proportion of children who are obese and overweight in Australia rose very rapidly from about 1970, but [plateaued at about 25%](#) in the mid-1990s, and has remained thereabouts pretty much ever since.

But the likelihood of becoming overweight or obese increases throughout the lifespan, or at least until deep old age. So as the current crop of kids age, they get heavier. When I was 40, 55% of my cohort were overweight or obese. By the time I was 60, it was 75%.

Life expectancy and obesity have both increased

Obesity [increases the risk](#) of the major killer diseases: heart disease, stroke, diabetes, and cancer—and many other conditions.

So, the Health and Wellbeing Queensland report argues, we can expect a tsunami of obesity-related deaths in the future, even without an increase in current levels of childhood obesity.

At first blush, this sounds plausible.

But life expectancy has been increasing in countries where obesity has been increasing for decades. The obesity-related reduction in life expectancy previously [predicted](#) hasn't happened.

Obesity is associated with a higher risk of death but being moderately overweight isn't

A slew of [studies](#) involving [millions of people](#) have found, rather counter-intuitively, that although slightly [overweight people](#) are more likely to get [heart disease](#) and diabetes, or suffer strokes, they live longer.

These studies find that life expectancy is greatest at a [body mass index](#) (BMI) of about 27: pretty much in the middle of the overweight range.

However, obesity (BMI of 30 or more) is consistently associated with a higher risk of premature [death](#).

So what's the problem with the report?

First, the report assumes "business as usual"—that is, childhood obesity levels will remain high, and the risk of disease and death associated with a given level of fatness won't change.

But business is never as usual. Medical treatments improve, diet and activity change.

In fact, several studies have found that the level of fatness associated with the lowest risk of death has been increasing over time.

One [Danish study](#) found that in a cohort from 1977, the lowest risk of death occurred at a BMI of 24. By 1992, it was 25, and by 2008 it was 27. This probably reflects better medical treatment of people who are overweight or obese.

So by the time these children reach adulthood, even if they remain obese, their chance of dying prematurely will be less than it is today.

Some data underpinning the modeling are questionable

There's a second problem with this report. To estimate how much being overweight or obese increases the risk of death, the report relies on a [2009 study](#) by an Oxford University-based group called The Prospective Studies Collaboration.

In contrast to the studies mentioned above, this study found the risk of death was lowest at a BMI of about 23-24.

However, the study relied in part on self-reported height and weight, and people tend to underestimate their BMI (we all think we're a little taller and a little leaner than we really are).

This bias means that in these studies based on self-report, the lowest risk of death actually occurs at a higher BMI, rather than the reported 23-24.

This methodological flaw (and others) have been [pointed out](#) in relation to a different study using a similar methodology.

Another issue is that as we age, the BMI associated with the lowest risk of death increases. [One British study](#) found that under the age of 50, the "least lethal" BMI is about 23. By the age of 80, it is closer to 28.

So that as people age, higher levels of fatness carry less risk. This may be because fat provides a nutritional reserve, or cushioning from falls, or because older people get better medical care.

Separating science from activism

Finally, it troubles me that the report is openly activist in its intent.

The executive summary states that "to build social license" for changes such as sugar taxes and advertising bans: "people need to accept the gravity of the situation and believe that maintaining healthy weight for children is not solely a parental responsibility."

This conclusion is nowhere justified by this report. The report doesn't analyze factors driving [obesity](#) at all. It merely makes a mathematical projection of life expectancy.

Predictions about life expectancy arise from time to time, and we should always be wary about taking them at face value. As US baseballer Yogi Berra [said](#), "It's tough to make predictions, especially about the future."

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