

Governments have [invested billions in efforts to prevent obesity](#) , yet Australians keep getting fatter, especially in areas of socioeconomic disadvantage.

Over the past two decades, the prevalence of obesity rose in adults from [19% to 28%](#) . The proportion who are overweight remained similar at around 38%. This means two-thirds of Australian adults are now overweight, with a [body mass index](#) (BMI) of 25–29.9, or obese (BMI ≥ 30).

A new study published in [BMJ Open](#) confirms that obesity is highest in Australians who live in areas of socioeconomic disadvantage. The age-adjusted odds ratio of being overweight or obese was determined for high and low levels of socioeconomic disadvantage. We analysed data collected from almost 37,000 patients based on their interactions with their general practitioners over two years (September 2011 to 2013).

This study is part of the larger [Sentinel Practices Data Sourcing](#) project. This aims to develop a surveillance system for monitoring chronic diseases within the Southeastern NSW Primary Health Network.

Patients' area of residence was categorised using the [Socio-Economic Index for Areas](#) of relative socioeconomic disadvantage. Both men and women living in areas of highest socioeconomic disadvantage had a 29% higher risk of being obese. The opposite association was found for being overweight, at least in men (those in areas of lesser relative socioeconomic disadvantage were more likely to be overweight).

What makes low-SES areas 'obesogenic'?

It is well recognised that an [inverse relationship](#) exists between socioeconomic status (SES) and obesity. But the reasons for this are not straightforward.

“Obesogenicity” (the sum of influences that physical surroundings have on promoting excessive weight gain) of neighbourhoods may relate to the food environment (inadequate access to local

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Written by The Conversation USA

sources of healthy foods, such as supermarkets and greengrocers, or easy access to unhealthy foods, such as fast-food restaurants) or the physical activity environment (less green space, unsafe neighbourhoods).

In the US, it has been demonstrated that neighbourhoods in lower socioeconomic areas are more “obesogenic” than those in richer areas. This translates to higher levels of obesity in [children](#) and [adults](#)

. But these findings are [not directly transferable](#) to Australia.

A study of socioeconomically disadvantaged areas in Victoria ranked neighbourhoods using an index that included three domains:

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food resources (supermarkets, green grocers, fast-food restaurants);

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recreational activity resources (gyms, pools, park space); and

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walkability (four or more intersections within a 2km buffer, walking environment, neighbourhood safety).

Surprisingly, neighbourhood “obesogenicity” was not associated with BMI of residents. It seems other factors may be at play.

Supermarkets and shelf space

Supermarket proximity may not necessarily reflect access to healthier foods. About 30% of supermarket shelf space comprises junk (or non-core) foods. However, the [shelf space](#) dedicated to non-core foods does not differ according to the location of the supermarket.

There is also no association between proportion of shelf space allocated to non-core foods and their purchase. [But low-SES Australian shoppers](#) do buy significantly more non-core foods than high-SES shoppers, especially chips and sugar-sweetened carbonated beverages and cordials.

This behaviour is likely to be driven by the [economics of food choice theory](#) : people on low incomes maximise energy availability per dollar. They buy foods that provide the most energy (usually with few other nutrients) for the least cost. This has been shown to influence food purchases in [Indigenous communities](#)

There may also be less segregation in Australia between neighbourhoods classified as high versus low SES. Or there may be less clustering of fast-food restaurants in low-SES neighbourhoods than occurs in the US. Also, people may not necessarily shop or eat out where they live, particularly if they commute to work and [access fast-food outlets](#) on their way home.

Green space effects vary

A study in NSW found that proximity of residence to green space was associated with undertaking more moderate-to-vigorous physical activity and having less sitting time in both men and women.

However, this activity translated into lower body weight only in women; those who lived close to green space had a [10-20% lower risk](#) of being overweight or obese, respectively, compared to those who lived further from such areas.

It could be that men compensate for being active by eating more, regardless of where they live, but this hypothesis remains to be proven.

There is little doubt that state government investment to enhance green spaces may promote physical activity in middle-to-older-aged adults. This has to be a good thing, but the impact on obesity may not benefit everyone to the same extent.

How can we reduce obesity in low-SES areas?

[Our study](#) provides new insights for population health planning. The findings highlight a need for preventive health initiatives to be specific to gender and the socioeconomic attributes of the target population.

We propose that, in areas of highest socioeconomic disadvantage, primary care providers could have more streamlined approaches to direct obese patients to existing weight loss programs. These include the free government-funded, population-based [Get Healthy Information and Coaching Service](#).

In areas of low socioeconomic disadvantage, efforts could be focused on preventing further weight gain in adults, particularly men, who are already in the overweight range.

Encouraging patients to keep a close eye on their weight could be achieved through routine weighing every time they attend their general practitioners. This is an [effective strategy](#) and is relatively simple. However, recording of height and weight measures in general practices [especially in regional settings](#) is much lower than optimal.

The (large) elephant in the room

The Australian government has been [heavily criticised](#) over recent weeks for its lack of commitment to [preventing chronic diseases within the primary health care system](#). Less than 2% of health funding is [spent on prevention](#).

As part of the Primary Health Care Review, the [“Healthier Medicare”](#) package focuses on treatment of chronic diseases, but ignores the elephant in the room – prevention of

obesity.

Obesity is the most important cause of chronic conditions, including type-2 diabetes and cardiovascular disease. Surely it would make better economic sense to stem the tidal wave of obesity, which brings with it chronic diseases, rather than wait for the already overburdened health system to cope with the increasing prevalence of these conditions.

As well as a health services approach, population-level strategies are urgently required to influence dietary behaviours, with reach across all SES levels.

Other countries are ahead of the game in this regard. For example, [Mexico](#) , [France](#) , [South Africa](#) and, most recently, the [UK](#) have implemented [sugar taxes](#) on soft drinks. Scandinavian countries and Ireland have [legislated a reduction of junk-food marketing](#) to children. In Australia, this relies on [voluntary adherence](#) by the food industry.

Perhaps neighbourhoods in pockets of high socioeconomic disadvantage need to carry a health risk message: “Living here will make you fat”. Or perhaps policymakers need to look at the glaringly obvious health data and shift resources to where they are most needed to prevent obesity.

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