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# Creating liveable cities in Australia

A scorecard and priority  
recommendations for Sydney



Centre for  
Urban Research



# What makes a liveable city?

The term 'liveability' is widely used in Australia and across the world, yet it is rarely defined. We define a 'liveable' community as one that is:

'safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities [1].'

Liveable, walkable neighbourhoods can improve public health, and can increase environmental, economic and social sustainability [2, 3]. Creating healthy, liveable communities will therefore help cities achieve the United Nations Sustainable Development Goals [4] and United Nations Habitat's New Urban Agenda [5]. We have identified seven domains that help make neighbourhoods liveable:



## Liveable city scorecard

In 'Creating Liveable Cities in Australia' (2017) we reviewed state government urban planning policies related to liveability in Sydney, Melbourne, Brisbane and Perth and presented the first 'baseline' measure of liveability in these cities [6].

This scorecard focuses on the results and recommendations for Sydney, New South Wales based on two types of indicators mapped across the metropolitan area:

### 1) Policy implementation indicators

We reviewed each state's policies and identified relevant, measurable standards and targets. We then mapped and assessed how well states were implementing their policies spatially, i.e., how they were delivered on-the-ground.

The scorecard shows where Sydney is currently meeting or exceeding (▲), on par (■) or falling below (▼) its policy targets.

### 2) National liveability indicators

We created a set of spatial liveability indicators which are aligned with urban policy and are also associated with chronic disease risk factors or health outcomes. We mapped these using data available nationally, allowing comparisons between the state capital cities.

The Housing Affordability and Employment national liveability indicators have been updated in this scorecard using the newly available 2016 Census data from the Australian Bureau of Statistics.

The scorecard shows where Sydney is currently performing well (▲), on par (■) or underperforming (▼) compared to other cities.



# Our main findings

- Making Sydney 'liveable' is a policy objective of the New South Wales state government. In some domains of liveability (e.g., public transport access), Sydney outperforms other Australian cities in its policy ambition and performance. However, to achieve its liveability aspirations, greater ambition is required in some of its policy targets.
- Average dwelling densities in Sydney are higher than other cities (**18 dwellings per hectare**). Nevertheless, Sydney's suburban development target of 15 dwellings per hectare is low, and well below that required to create walkable neighbourhoods (at least 25 dwellings per hectare). Notably, only **37%** of Sydney's suburbs are achieving even this modest dwelling density target.
- Sydney is doing well in:
  - creating walkable communities in the south and inner-west city areas
  - providing access to smaller public open spaces within 400 m of residences
  - setting ambitious targets for nearby access to frequent public transport.
- Only **38%** of residences met the spatially measurable 2001 Integrated Transport and Land Use Guidelines requiring 100% of residences to be within 400 m of a bus stop serviced every 30 minutes or within 800 m of a train station serviced every 15 minutes. Although the more recent Public Transport Service Planning Guidelines were reviewed, their reliance on service frequency and proximity for different forms of transport at different times of the day made them too complex to measure. NSW's level of transport service policy is to be applauded, as no other state has this level of detail in their transport policies.
- However, Sydney does not have measurable spatial policies on:
  - access to activity centres
  - street connectivity.
- **41%** of lower-income households in Sydney are experiencing housing affordability stress.
- Sydney has the highest proportion of people living and working in the same broad area (**31%**). Compared with other cities, more people in Sydney commute to work by public transport (**26%**). However, only **6%** use active modes of transport to travel to work.
- There are no measurable spatial policies about the food environment. Only **41%** of residences in Sydney are within 1 km of a supermarket.
- There are no measurable spatial policies about the alcohol environment. **44%** of Sydney residences are *not* within 800 m of an outlet selling take-away alcohol.



# Recommendations

We recommend that:

- integrated evidence-informed transport, land use and infrastructure planning be undertaken to deliver affordable housing, public transport, accessible employment and amenities; and create walkable neighbourhoods as the foundation of a liveable city
- measurable spatial targets be included in all policies, regulations and guidelines for urban planning, transport and infrastructure
- ambitious targets be set for all seven liveability domains, with specific short-term, medium-term and long-term goals for implementation. The state government should:
  - increase and fully implement a minimum housing-density target of at least 25 dwellings per hectare, with even higher densities around public transport nodes and activity centres
  - maintain and further implement policies that create larger, higher-quality public open spaces
  - maintain its ambitious public transport access policy that includes proximity, frequency, and time of day service targets.
  - set policies and targets for improving the food and alcohol environment. This could increase people's access to healthy food, and reduce the health-related and social harms caused by excessive alcohol consumption
  - increase the provision of walking and cycling infrastructure and encourage active forms of transport to work, including in outer suburban areas
  - develop spatial policies for affordable housing and access to local employment.
- spatial indicators be adopted to measure and monitor the implementation of state government policies designed to create liveable communities. These should be updated at least every five years, to coincide with the ABS Census, and more frequently where possible.
- implement its plans for metropolitan governance in ways that ensures that state and local government policies are consistent, evidence-informed, and designed to create healthy, liveable communities
- support the recognition of health promotion as a relevant planning consideration to other infrastructure sectors. This will help local government planners create healthy, liveable communities.

# Walkability

## What does the policy say — and how well is it being implemented?

In New South Wales, the Integrated Transport and Land Use Guidelines has one specific measurable target that affects walkability:

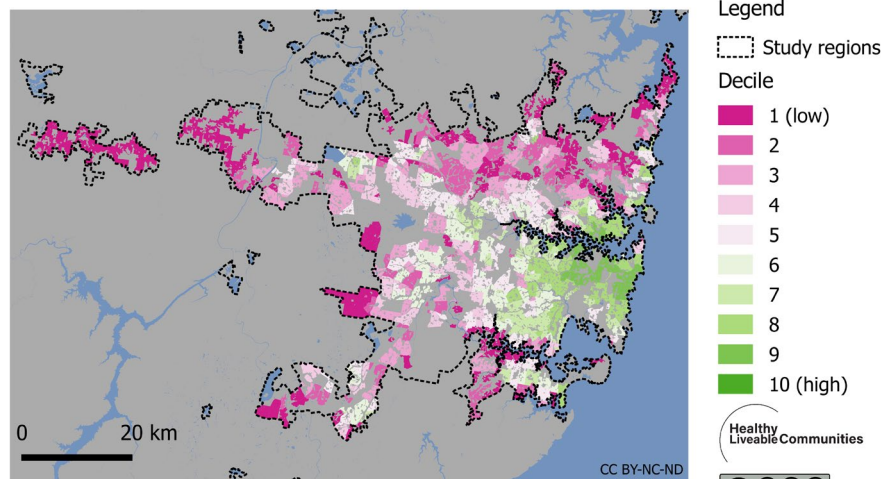
- **Density** – requires a minimum gross residential density of **15 dwellings per hectare** to support bus services.

▼ **37%** of suburbs in Sydney meet this target.

Although the Regional Plan for Sydney proposes 'increased walkable access to local centres,' we did not find specific measurable spatial policies in New South Wales for:

- Access to destinations or mixed land uses; or
- Street connectivity.

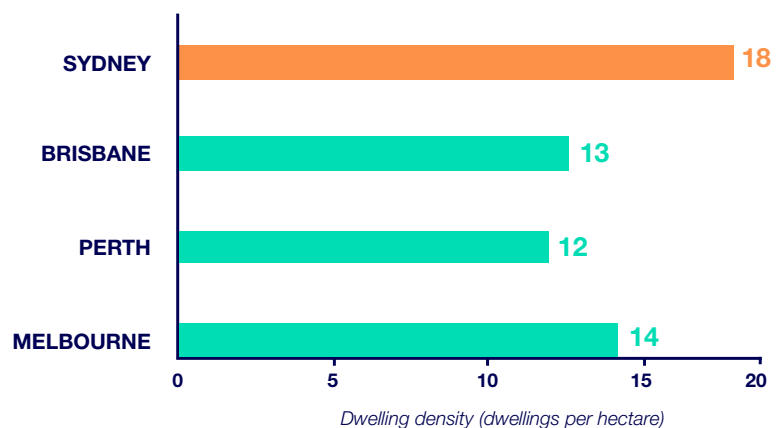
Composite walkability indicator\* for suburbs within Sydney



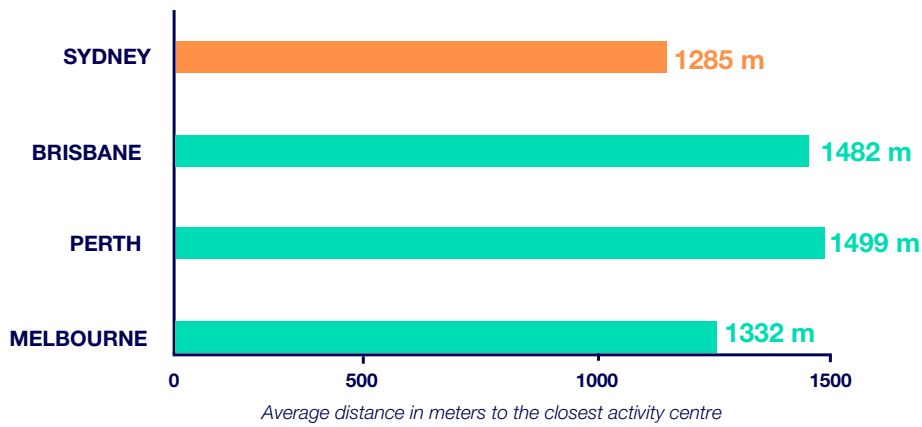
\* decile score for the suburbs of Sydney, combining street connectivity, dwelling density and daily living scores

## How does Sydney rate on the national liveability indicators?

Walkability was measured nationally using a variety of indicators shown to influence walking for transport [7]. Our combined walkability score includes dwelling density, street connectivity and access to daily living destinations within 1.6 km walking distance of home. Also presented here are indicators of distance to closest activity centre and dwelling density.



- Walkability in Sydney is best in the south and inner-west city areas but declines towards the urban fringe. Low walkability on the urban fringe is a common pattern in most Australian cities with the exception of Perth which through well-implemented urban design guidelines has some new walkable areas in outer suburban areas.
- ▲ At nearly **18 dwellings per hectare on average**, Sydney's dwelling density is higher than that of Melbourne (**14**), Brisbane (**13**), and Perth (**12**).
- ▲ On average, residences in Sydney are **1.3 km from their closest activity centre** – this is similar to Melbourne (**1.3 km**), and closer than in Brisbane and Perth (**1.5 km**).



# Public Transport

## What does the policy say — and how well is it being implemented?

In New South Wales, the 2001 Integrated Transport and Land Use Guidelines<sup>1</sup> aim for **100%** of Sydney residences to be located within 400 m of a bus stop serviced every 30 minutes, or within 800 m of a train station serviced every 15 minutes.

This is the most ambitious policy of all the states reviewed, and the only policy to include a target for frequency of services. Other state policies are based on proximity only i.e., 400 m to a bus stop or 800 m to a train station with targets of **60%** in Perth, **90%** in Brisbane and **95%** in Melbourne. Although Sydney's policy ambition is to be encouraged and should be replicated in other Australian cities, at this stage only:

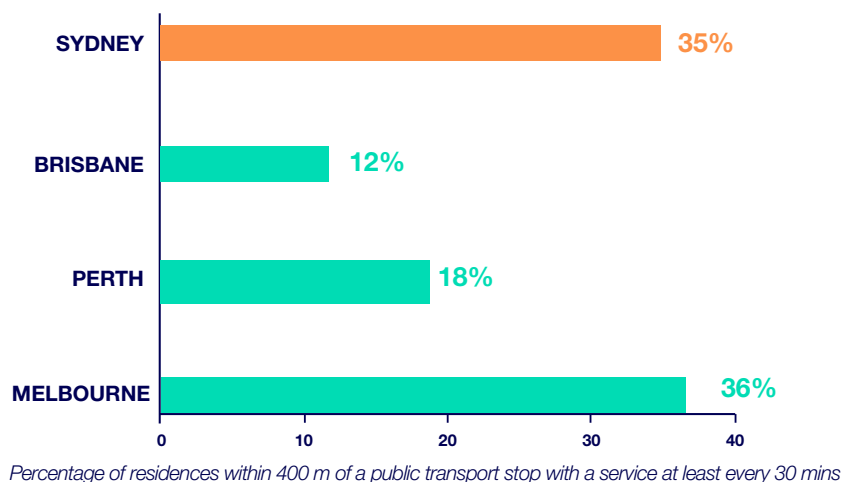
▼ **38%** of residences and **2%** of suburbs meet the target for proximate and frequent public transport.

## How does Sydney rate on the national liveability indicator?

We measured public transport nationally using an indicator combining public transport access with the frequency of service:

- Percentage of residences within 400 m of a public transport stop with a scheduled service at least every 30 minutes between 7 am and 7 pm on a normal weekday.

This is a stronger predictor of walking for transport than access alone [8].



■ **35%** of Sydney residences meet this national indicator, which is similar to Melbourne (**36%**), and higher than Perth (**18%**) and Brisbane (**12%**).

<sup>1</sup> We reviewed the more recent Public Transport Service Planning Guidelines, however these were too complex to measure.

# Public Open Space

## What does the policy say — and how well is it being implemented?

In New South Wales, the Recreation and Open Space Planning Guidelines for Local Government combine size and proximity to residences for public open space access.

The policy requires 'most' residences (interpreted as more than 50%) be within 400 m of public open space larger than 0.5 hectares in size.

▲ 59% of residences and 67% of suburbs meet the target.

The policy also requires 'most' residences (i.e., more than 50%) be within 2 km of public open space larger than 2 hectares in size.

▲ 98% of residences and 98% of suburbs meet the target.

## How does Sydney rate on the national liveability indicators?

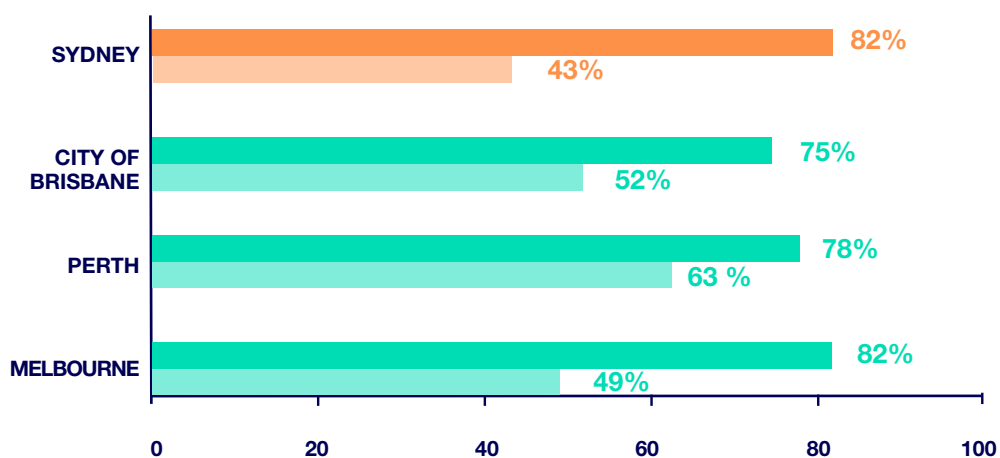
We measured public open space nationally using two indicators:

- access to a public open space within 400 m
- access to a public open space larger than 1.5 hectares within 400 m.

The latter indicator is based on evidence that smaller parks do not necessarily encourage physical activity or improve mental health [9].

▲ 82% of residences in Sydney are within 400 m of a public open space of any size, similar to Melbourne (82%) and higher than Perth (78%) and the City of Brisbane (75%).<sup>2</sup>

▼ 43% of residences in Sydney are within 400 m of a public open space larger than 1.5 hectares, which is lower than Perth (63%), City of Brisbane (52%), and Melbourne (49%).



Top bar: Percentage of residences within 400 m of a public open space  
Bottom bar: Percentage of residences within 400 m of a public open space larger than 1.5 hectares

<sup>2</sup> In Brisbane public open space data was only available for the City of Brisbane.

# Housing Affordability

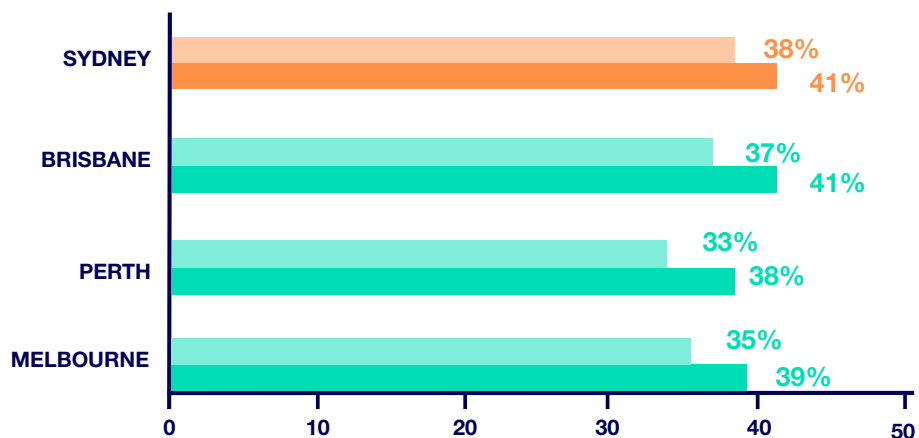
## What does the policy say?

At the time of the review, we found no measurable spatial policies about housing affordability in New South Wales.

## How does Sydney rate on the national liveability indicator?

We measured housing affordability nationally using the well known 30/40 housing affordability stress measure [10]. This identifies households in the bottom 40% of income that spend more than 30% of their total income on housing. The 30/40 measure is associated with poorer self-rated health, higher community dissatisfaction, and residents feeling unsafe [11].

- ▼ Based on 2016 Census data, 41% of lower-income households in Sydney are experiencing housing affordability stress.
- In Sydney, like most other cities, housing affordability stress increased between the 2011 and 2016 Census. However suburbs with the highest levels of housing stress tended to be spread across large areas of the city. Residents in these areas are at particular risk of housing affordability stress, because they also tend to have poor access to public transport and live in low walkable communities, which increases their reliance on private motor vehicle transportation.



Percentage of households in the bottom 40 percent of the income distribution spending more than 30 percent of household income on housing costs

Top Bar: 2011; Bottom Bar: 2016

# Employment

## What does the policy say?

At the time of the review, we found no measurable spatial policies about providing employment in local areas or encouraging public and active transport to work in New South Wales.

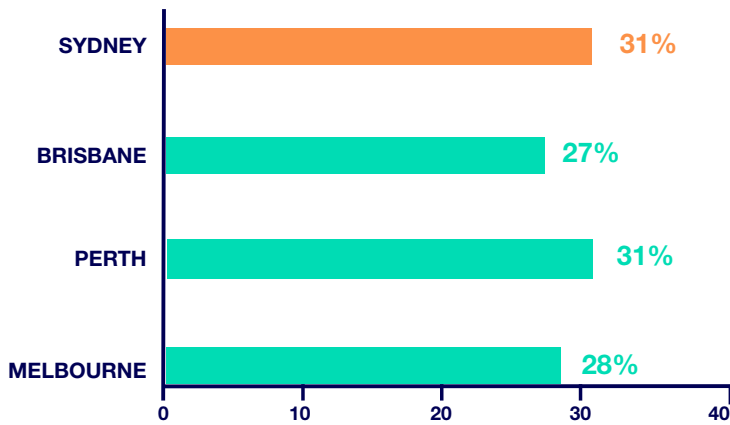
## How does Sydney rate on the national liveability indicators?

We measured employment nationally using two indicators:

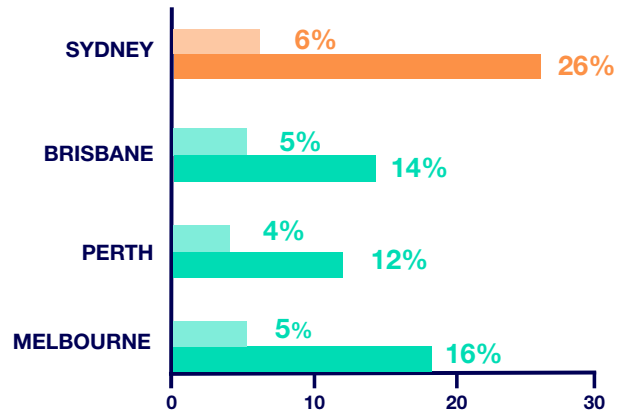
- percentage of employed people living in a small local area (Statistical Area 2) working in the broader local area (Statistical Area 3)



- percentage of employed people using active transport (walking, cycling) or public transport to travel to work.



Percentage of employed people living in SA2 and working in the broader SA3



Method of travel to work for employed people aged 15 and over  
Top bar: Percentage using active transport  
Bottom bar: Percentage using public transport

Based on 2016 Census data:

- ▲ 31% of employed people in Sydney live and work in their broader local area, which is similar to Perth (31%) and higher than Melbourne (28%) and Brisbane (27%).
- ▲ Only 6% of employed people in Sydney use active transport to travel to work, which is comparable with those in Melbourne and Brisbane. However, compared with other cities, Sydney has a much higher proportion of employed people using public transport (26%) to travel to work.

Given that over one third of employed Sydney residents live and work in their broader local area, there is an opportunity to increase active and public transport journeys to work, particularly if safe pedestrian and cycling infrastructure were provided.

## Food Environment

### What does the policy say?

At the time of the review, we found no measurable spatial policies about creating a healthy food environment in New South Wales.

### How does Sydney rate on the national liveability indicators?

We measured the food environment nationally using two indicators:

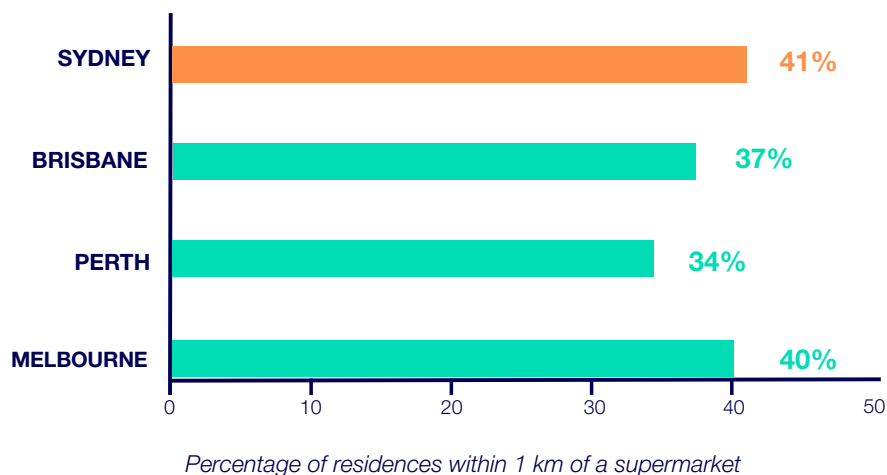
- access to a supermarket within 1 km
- the healthy food ratio, measured as the percentage of healthy food outlets within 3.2 km as a proportion of all food outlets

Our previous research found modest increases in body mass index in people living in areas with healthy food ratios less than 75% [8, 12].

- ▲ 41% of residences in Sydney are within 1 km of a supermarket, which is similar to Melbourne (40%), and higher than Brisbane (37%) and Perth (34%).
- Sydney has a healthy food ratio of 46%, which is similar to other cities. This means just under half of all food outlets located within

3.2 km of homes are healthy food outlets.

▼ In Sydney, just **8%** of suburbs have a healthy food ratio of **75%** or more. This means residents in these suburbs have better access to healthy food options relative to fast food outlets.



## Alcohol Environment

### What does the policy say?

At the time of the review, we found no measurable spatial policies about moderating alcohol accessibility in New South Wales.

### How does Sydney rate on the national liveability indicators?

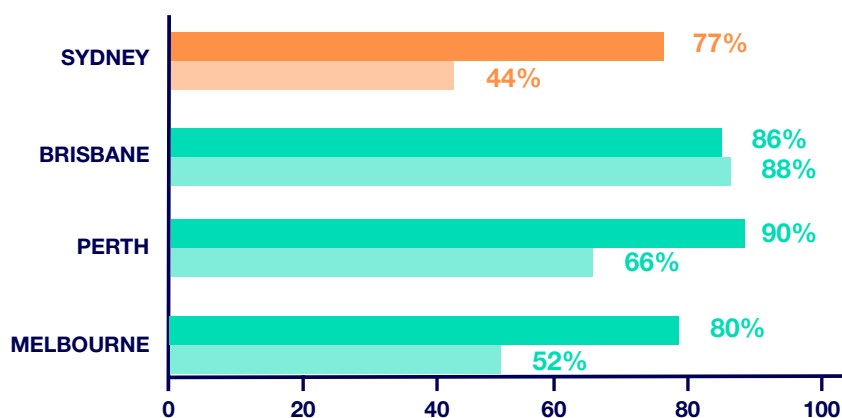
We measured the alcohol environment nationally using two indicators:

- percentage of residences without access to on-licence outlets (places that serve alcohol on premises, such as pubs, bars and restaurants) within 400 m
- percentage of residences without access to off-licence outlets (bottle-shops and other places that allow take-away alcohol) within 800 m

Australian research suggests that high densities of alcohol outlets are associated with harmful alcohol consumption [13] and alcohol-related violence [14].

▼ **77%** of residences in Sydney are not within 400 m of an on-licence alcohol outlet. This is lower than Perth (**90%**), Brisbane (**86%**), and Melbourne (**80%**).

▼ **44%** of residences in Sydney are not within 800 m of an off-licence alcohol outlet. This is also lower than Brisbane<sup>3</sup> (**88%**), Perth (**66%**) and Melbourne (**52%**).



Top bar: Percentage of residences without access to an on-licence within 400 m  
Bottom bar: Percentage of residences without access to an off-licence within 800 m

<sup>3</sup> Unlike in other states, there is only one liquor licence category for off-licence alcohol outlets in Queensland: commercial hotels - which allow for up to three detached shops to be operated away from the main premises. This likely under-represents the number of outlets available, with many of these detached shops missed from the analysis.

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## *Creating liveable cities in Australia: A scorecard and priority recommendations for Sydney*

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The full *Creating Liveable Cities in Australia* (2017) report can be found at:

**<http://cur.org.au/project/national-liveability-report/>**

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