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Creating liveable cities in Australia

A scorecard and priority
recommendations for Brisbane

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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 Brisbane, Queensland 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 Brisbane 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 Brisbane is currently performing well (▲), on par (■) or underperforming (▼) compared to other cities.

Our main findings

- Making Brisbane 'liveable' is a policy objective of the Queensland state government. In some domains of liveability, Brisbane performs well in comparison to 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.
- Brisbane is doing well in:
 - creating walkable neighbourhoods in the inner-city
 - setting an urban density target of 30 dwellings per hectare, which is high enough to achieve walkable neighbourhoods
 - achieving its target for access to large parks within the City of Brisbane
- However, Brisbane is not doing as well in:
 - providing access to public transport and walkable communities in outer suburban areas
 - setting its suburban density target at 15 dwellings per hectare, which is too low to achieve walkable neighbourhoods
 - setting measurable spatial policies for access to destinations, food and alcohol environments and for local employment
- **61%** of residences in Brisbane are within 400 m of a public transport stop, which is below the ambitious **90%** policy target. However, the current policy does not include frequency of service. Only **12%** of Brisbane residences have access to a nearby stop with a service at least every half hour. This is lower than other capital cities.
- Residences within the City of Brisbane have good access to larger public open spaces. **99%** meet the policy target of being within 2.5 km of a public open space larger than 5 hectares. However, only **65%** of residences are within 400 m of a park larger than 0.5 hectares, which is below the **90%** target.
- **37%** of lower-income households in Brisbane are experiencing housing affordability stress, which is more than five years ago.
- To travel to work only **14%** of employed people use public transport, and only **5%** walk or cycle.
- With **27%** of Brisbane's working population living and working in their broader local area, there is an opportunity for policies that encourage active transport for work commutes.
- Only **37%** of residences in Brisbane are within 1 km of a supermarket.

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 to 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 urban liveability domains, with specific short-term, medium-term and long-term implementation goals. The state government should:
 - increase and fully implement a minimum housing density target of 25 dwellings per hectare in suburban neighbourhoods, with higher densities around public transport nodes and activity centres
 - fully implement the minimum housing density target of at least 30 dwellings per hectare in urban neighbourhoods, and even explore increasing the target
 - maintain and set targets to fully implement existing policies for street block sizes that create walkable neighbourhoods
 - maintain and fully implement policies that create larger, higher-quality public open spaces
 - set more ambitious policies and targets for public transport access that include both proximity and frequency of service
 - invest in infrastructure that encourages walking and cycling for transport and to work, including in outer suburban areas
 - 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
- 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.
- state and local government policies be consistent, based on evidence, and designed to create healthy, liveable communities
- the state government continue to recognise health promotion as a relevant planning consideration in Queensland planning legislation. This will help local government planners create healthy, liveable communities.

Walkability

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

In Queensland, the Priority Development Area guidelines and practice notes include targets for:

- **Street connectivity** – sets targets for the length and width of residential street blocks, to create walkable block sizes with a maximum perimeter of 560 m. This is more ambitious than Victoria and Western Australia, which set a maximum perimeter of 720 m. Nevertheless, only:
 - **43%** of residential street blocks in Brisbane meet this target.
- **Density**¹ – specifies an average net density of at least 30 dwellings per hectare in urban neighbourhoods and 15 dwellings per hectare in suburban neighbourhoods. The urban dwelling density is commendable and higher than other state policies, however:
 - ▼ **13%** of suburbs in Brisbane meet the 15 dwellings per hectare target
 - ▼ **2%** of suburbs in Brisbane meet the 30 dwellings per hectare target

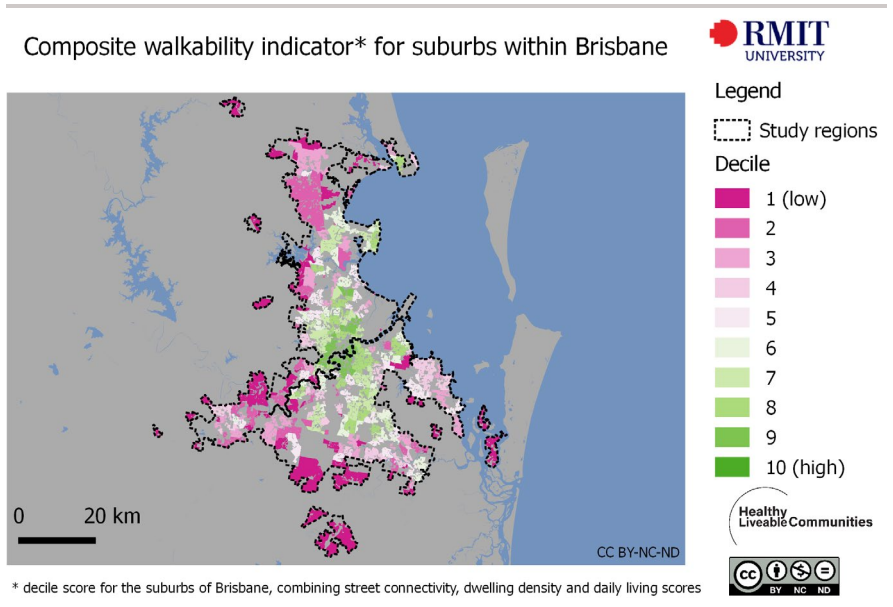
Unlike some other states, we did not find measurable spatial policies in Queensland for access to destinations.

How does Brisbane rate on the national liveability indicators?

Walkability was measured nationally using a variety of indicators shown to influence walking for transport [7]. Our walkability score combines 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 Brisbane is unequally distributed. It is highest in the inner and middle ring of suburbs and declines steeply towards the outer urban fringe.

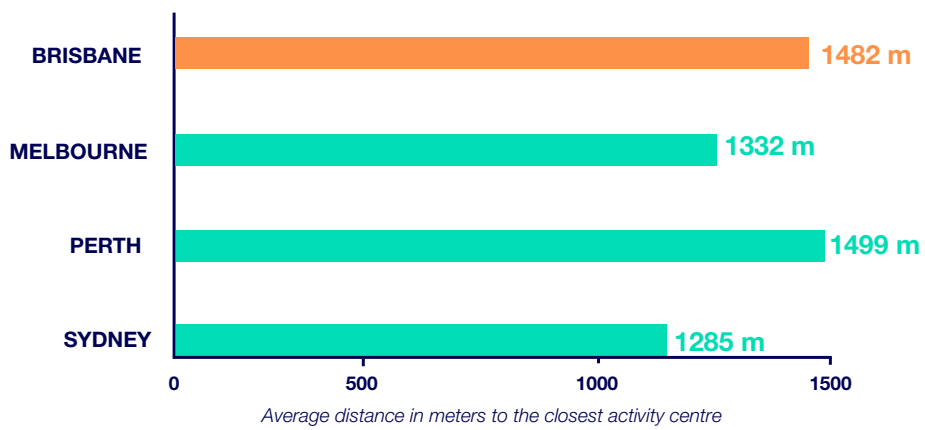
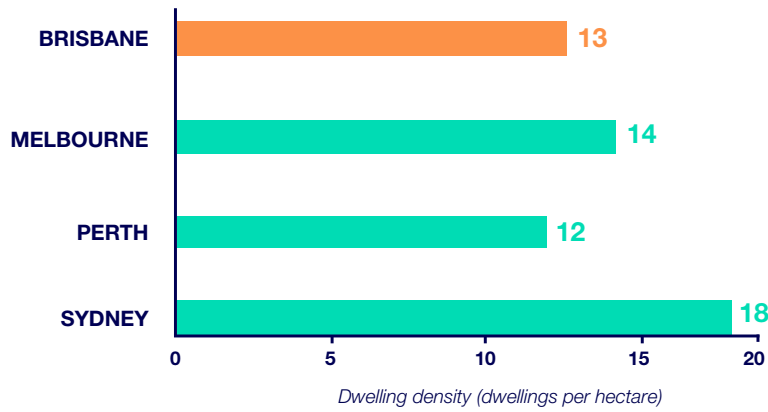
This pattern of inequity is common in Australian cities, with the exception of Perth, which through well-implemented urban design guidelines has some new walkable areas in outer suburban areas.



¹ Queensland has different dwelling density targets for 'urban' and 'suburban' neighbourhoods. However, these areas are not defined. We therefore couldn't measure whether the specific density targets were being met. Instead, we present the percentage of suburbs meeting net density targets.

■ Averaging **13 dwellings per hectare**, Brisbane's density is higher than Perth (**12**) but lower than Sydney (**18**) and Melbourne (**14**).

■ On average, residences in Brisbane are **1.5 km** from their closest activity centre – this is similar to Perth (**1.5 km**) but further than Sydney and Melbourne (**1.3 km**).





Public Transport

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

Queensland's Priority Development Area guidelines and practice notes require **90%** of residences in Brisbane to be within 400 m of a public transport stop. It does not include a target for frequency of service.

This is similar to the **95%** target in Melbourne and more ambitious than Perth's **60%** target. However, Sydney has the most ambitious and detailed policy, and is the only one to include targets for the frequency of services.

▼ **61%** of residences and **13%** of suburbs in Brisbane meet this target.

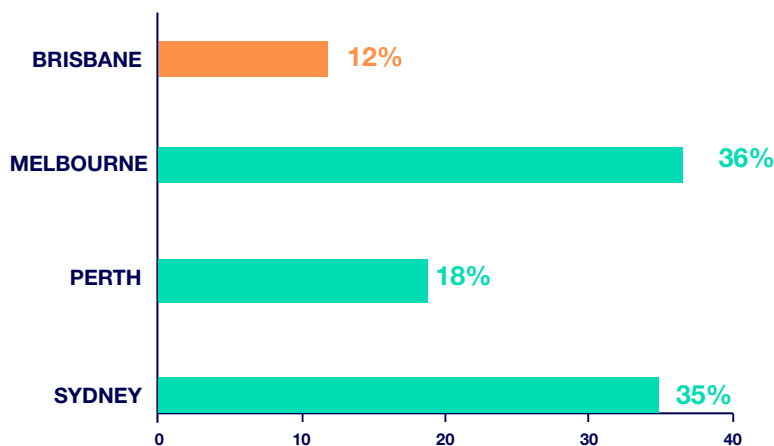
How does Brisbane rate on the national liveability indicator?

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 [10].

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



Percentage of residences within 400 m of a public transport stop with a service at least every 30 mins



Public Open Space

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

Queensland's Priority Development Area guidelines and practice notes require **90%** of residences to be within 400 m of a neighbourhood public open space larger than 0.5 hectares.

▼ **65%** of residences and **8%** of suburbs in the City of Brisbane² meet this target.

The policy also requires **90%** of residences to be within 2.5 km of a district public open space larger than 5 hectares in size.

▲ **99%** of residences and **55%** of suburbs in the City of Brisbane meet this target.

How does Brisbane rate on the national liveability indicators?

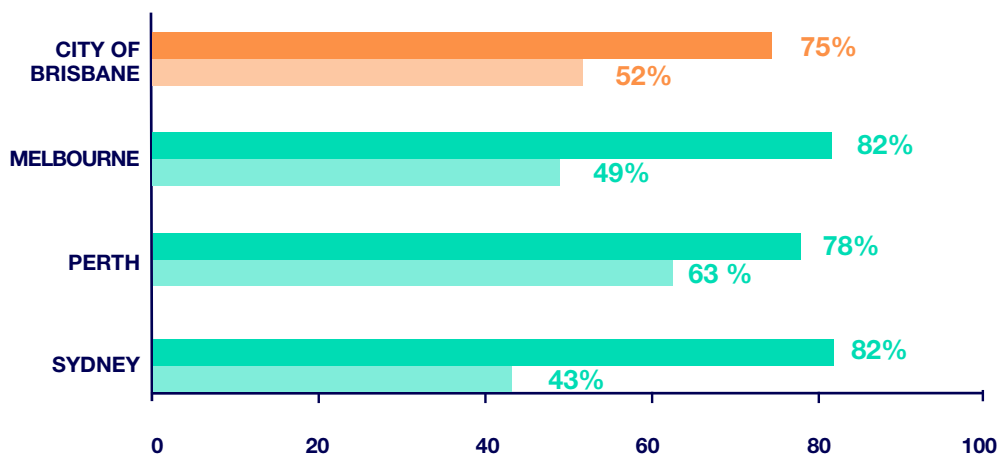
We measured public open space nationally using two indicators:

- 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]

▼ **75%** of residences in the City of Brisbane are within 400 m of a public open space of any size, less than Sydney and Melbourne (both **82%**), and Perth (**78%**).

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



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

² In Brisbane public open space data was only available for the City of Brisbane.

Housing Affordability

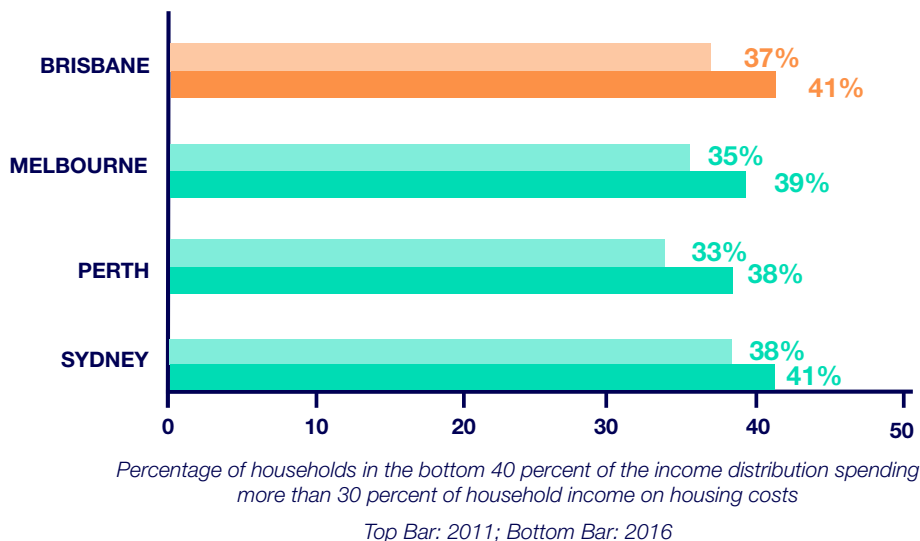
What does the policy say?

At the time of the review, we found no measurable spatial policies about housing affordability in Queensland.³

How does Brisbane rate on the national liveability indicator?

We measured housing affordability nationally using the 30/40 housing affordability stress measure. 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 a well-known indicator of housing affordability stress [10], and is associated with poorer self-rated health, higher community dissatisfaction, and residents feeling unsafe [11].

- ▼ Based on the 2016 Census, 41% of lower-income households in Brisbane are experiencing housing affordability stress.
- In Brisbane, like most other cities, housing affordability stress increased between the 2011 and 2016 Census. Suburbs with the highest levels of housing stress are spread across large areas of the city. These residents 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.



³The South East Queensland Regional Plan 2017, released in late 2017 after the policy review, does include a measurable policy for housing affordability.

Employment

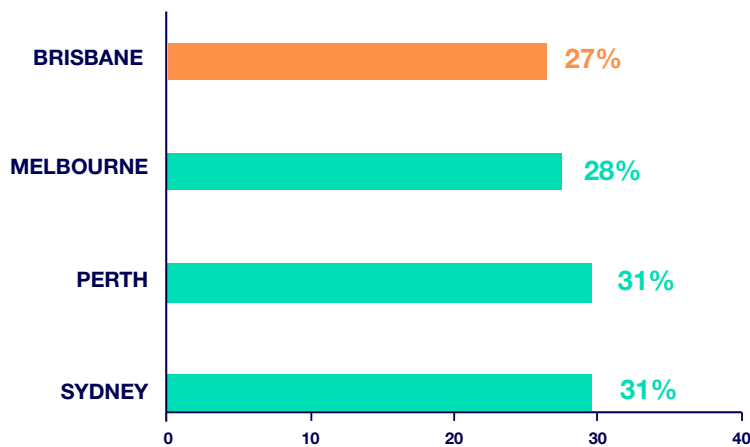
What does the policy say?

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 Queensland.

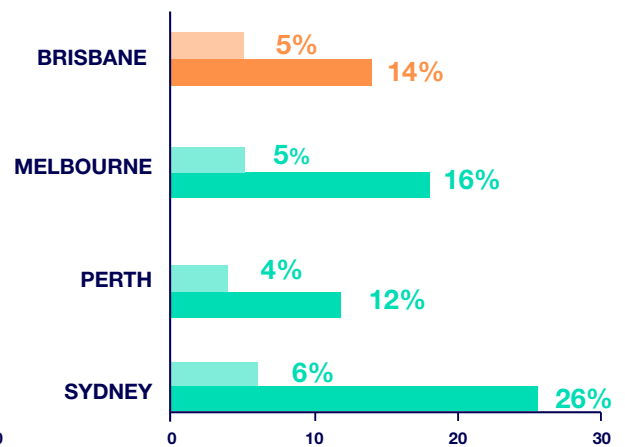
How does Brisbane rate on the national liveability indicators?

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:

- ▼ **27%** of employed people in Brisbane live and work in their broader local area, which is lower than in Perth and Sydney (**31%**) and Melbourne (**28%**).
- **14%** of employed people in Brisbane use public transport to travel to work, and **5%** use active transport.
- Given **27%** of employed residents live and work in their broader local area, there may be an opportunity to increase active and public transport journeys to work if appropriate infrastructure were provided.

Food Environment

What does the policy say?

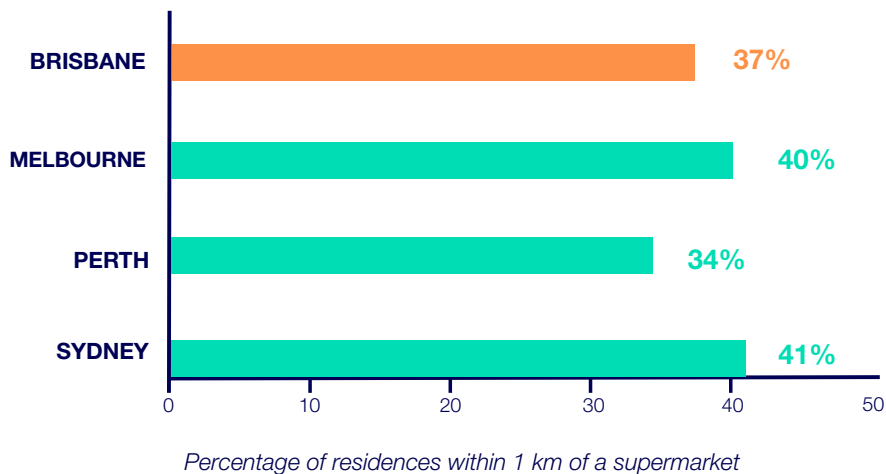
At the time of the review, we found no measurable spatial policies about creating a healthy food environment in Queensland.

How does Brisbane 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 has found modest increases in body mass index in people living in areas where the healthy food ratio is less than **75%** [8, 12].



- **37%** of residences in Brisbane are within 1 km of a supermarket, which is more than Perth (**34%**) but below Sydney (**41%**) and Melbourne (**40%**).
- Brisbane has a healthy food ratio of **46%**, which is similar to other cities. This means just over half of all food outlets located within 3.2 km of homes are fast food outlets.
- ▲ In Brisbane, just **11%** 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. While low, this is more than other cities.

Alcohol Environment

What does the policy say?

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

How does Brisbane rate on the national liveability indicators?

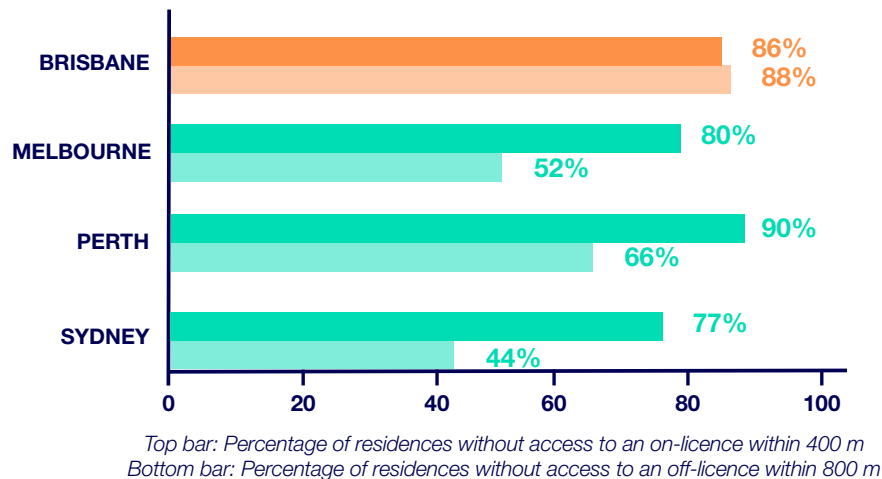
We measured the alcohol environment nationally using two indicators:

- 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 is associated with harmful alcohol consumption [13] and alcohol-related violence [14].

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

▲ **88%** of Brisbane⁴ residences are **not** within 800 m of an off-licence alcohol outlet. This is much higher than Perth (**66%**), Melbourne (**52%**) and Sydney (**44%**).



⁴ 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 Brisbane

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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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