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Creating liveable cities in Australia

A scorecard and priority
recommendations for Melbourne

 **RMIT**
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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 Melbourne, Victoria 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 Melbourne 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 Melbourne is currently performing well (▲), on par (■) or underperforming (▼) compared to other cities.

Our main findings

- Making Melbourne 'liveable' is a policy objective of the Victorian state government. In some domains of liveability, Melbourne performs well compared with 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.
- Melbourne's target of an average net density of 15 dwellings or more per hectare is low, and well below that required to create walkable neighbourhoods (at least 25 dwellings per hectare). Notably, only **21%** of Melbourne's suburbs are achieving even this modest dwelling density target.
- Melbourne is doing well in:
 - moving towards the **95%** policy target for access to public transport
 - providing access to public open spaces within 400 m of residences.
- **69%** of residences have access to a bus stop within 400 m, tram stop within 600 m or train station within 800 m, moving towards Victoria's ambitious **95%** public transport policy target. However, unlike Sydney, Melbourne does not have a target for service frequency.
- **36%** of residences in Melbourne meet the stricter public transport national liveability indicator requirements, and are within 400m of a public transport stop with a scheduled service at least every 30 minutes between 7am and 7pm on a normal weekday. This result highlights the importance of service frequency in measuring transport access.
- **82%** of residences are within 400 m of a public open space of any size and only **49%** have access to public open spaces larger than 1.5 hectares.
- However, Melbourne is not doing well in:
 - fully implementing policies aimed at increasing access to destinations, street connectivity, and density to create walkable neighbourhoods
 - providing access to public transport and walkable communities in outer suburban areas.
- **39%** of lower-income households in Melbourne are experiencing housing affordability stress.
- **28%** of people in Melbourne live and work in the same broad area, but when traveling to work only **16%** use public transport, and only **5%** walk or cycle.
- **40%** of residences in Melbourne are within 1 km of a supermarket.
- There are no measurable spatial policies about the alcohol environment. **52%** of Melbourne residences are **not** within 800 m of an outlet selling take-away alcohol.
- There are no measurable spatial policies for housing affordability, or supporting local employment, or for public and active transport to work.

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 standards 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 goals for implementation. The state government should:
 - increase and fully implement a minimum housing-density target of at least 25 dwellings per hectare [7], with even higher densities around public transport nodes and activity centres [8]
 - set, implement and maintain policies that create larger, higher-quality public open spaces
 - implement and maintain more ambitious public transport access policies that include proximity and frequency of service targets, and add interim short and medium term targets to encourage evaluation and implementation of this policy
 - develop spatial policies 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
 - invest in walking and cycling infrastructure including in outer suburban areas
 - encourage active forms of transport to work
 - 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 Australian Bureau of Statistics Census, and more frequently where possible.
- health promotion be recognised as an objective of the Victorian Planning and Environment Act. This will help local government planners create healthy, liveable communities.

Walkability

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

The Victorian Planning Provisions and Precinct Structure Planning Guidelines have guidelines for three urban design features that affect walkability:

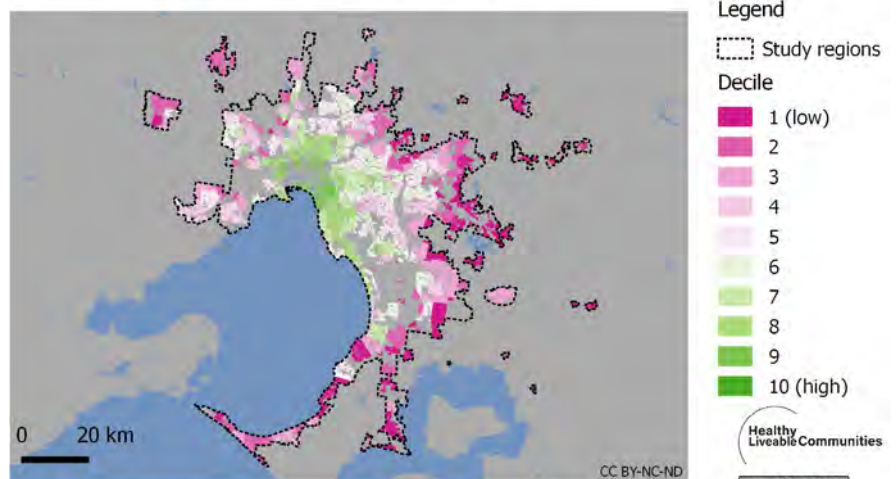
- **Access to destinations** – requires **80-90%** of residences be within 1 km of an activity centre large enough to support a supermarket. Western Australia and Victoria are the only states with policies for access to destinations located at activity or district centres.
 - ▼ **40%** of residences and **11%** of suburbs in Melbourne meet this target.
- **Street connectivity** – sets a standard for the length and width of street blocks, to create walkable blocks with a of maximum perimeter 720 m.
 - **65%** of residential street blocks in Melbourne meet this standard.
- **Density** – specifies an average net density of 15 dwellings per hectare. This is too low to create walkable neighbourhoods.
 - ▼ **21%** of suburbs in Melbourne meet this target.

How does Melbourne rate on the national liveability indicators?

Walkability was measured nationally using a variety of indicators shown to influence walking for transport [9]. 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.

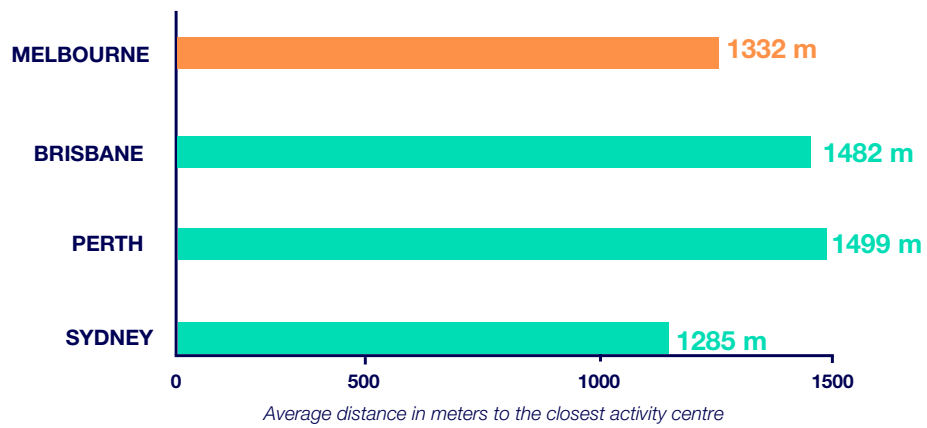
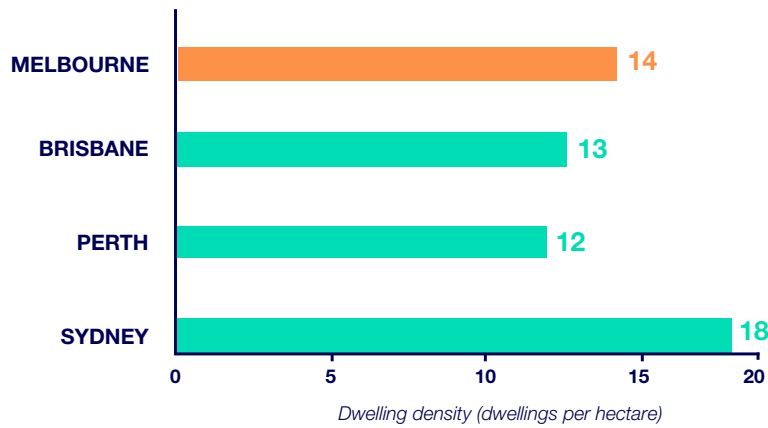
- Overall walkability in Melbourne is highest in the inner and middle suburbs and declines towards the urban fringe. Low walkability on the urban fringe is common in Australian cities with the exception of Perth, which through well-implemented urban design guidelines, has some new walkable areas in the outer suburbs.
- Melbourne's dwelling density averages **14 dwellings per hectare**, which is below Sydney (**18**) but higher than Brisbane (**13**) and Perth (**12**).

Composite walkability indicator* for suburbs within Melbourne



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

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



Public Transport

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

The Victorian Planning Provisions require **95%** of Melbourne residences to be within 400 m walking distance of a bus stop, 600 m of a tram stop, or 800 m of a train station. However, unlike Sydney, it does not include a target for frequency of service.

▼ **69%** of residences and **14%** of suburbs in Melbourne meet this target.

Victoria's policy is more ambitious than the public transport access target of **60%** in Perth and **90%** in Brisbane. However, Sydney has the most ambitious and detailed policy, and is the only one to include targets for service frequency.

Public transport access in Melbourne is highest in the inner city and lowest on the urban fringe.

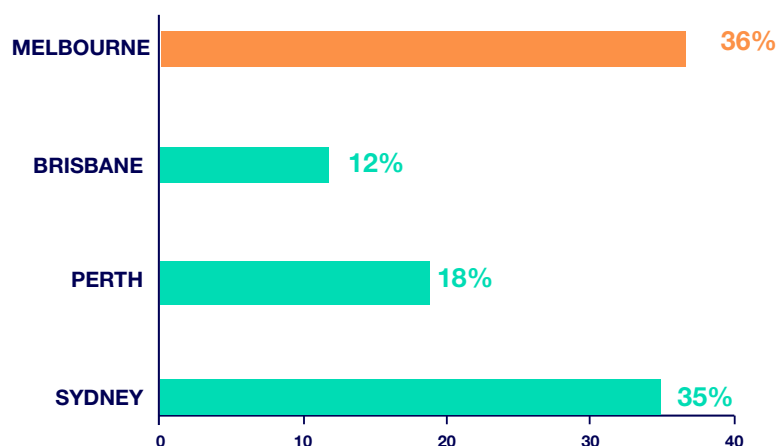
How does Melbourne rate on the national liveability indicator?

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].

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



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?

The Victorian Planning Provisions require **95%** of residences to be within 400 m safe walking distance of public open space.

■ **82%** of residences and **12%** of suburbs in Melbourne meet this target.

Victoria is the only state reviewed which did not require a specific minimum size for public open space. However, the policy does mention that local parks should 'generally' be 1 hectare in size. Other states reviewed have policies requiring shorter distances for access to smaller public open space, and longer distances for larger ones, with specific sizes and distances detailed in the respective policies.

How does Melbourne rate on the national liveability indicators?

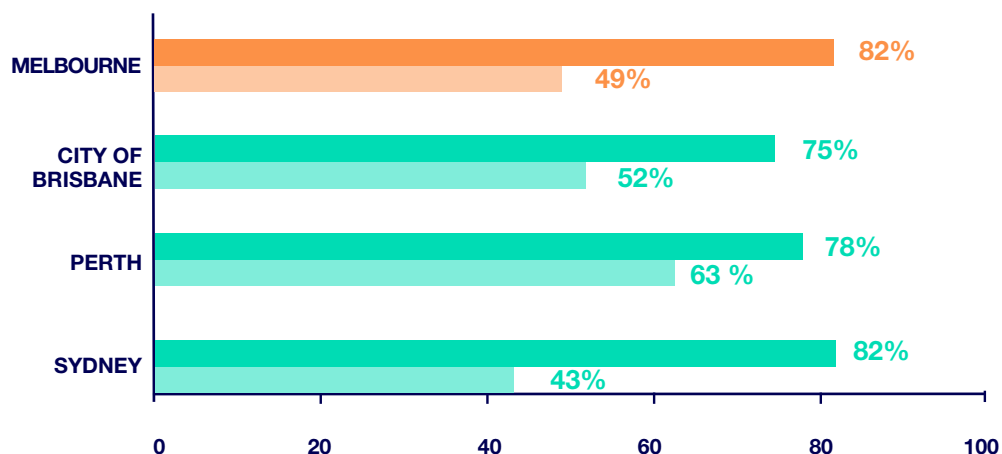
We measured public open space nationally using two indicators:

- 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 [11].

▲ **82%** residences in Melbourne are within 400 m of a public open space of any size, similar to Sydney (**82%**), and higher than Perth (**78%**) and the City of Brisbane (**75%**).¹

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



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

¹ In Brisbane public open space data was only available for the City of Brisbane.



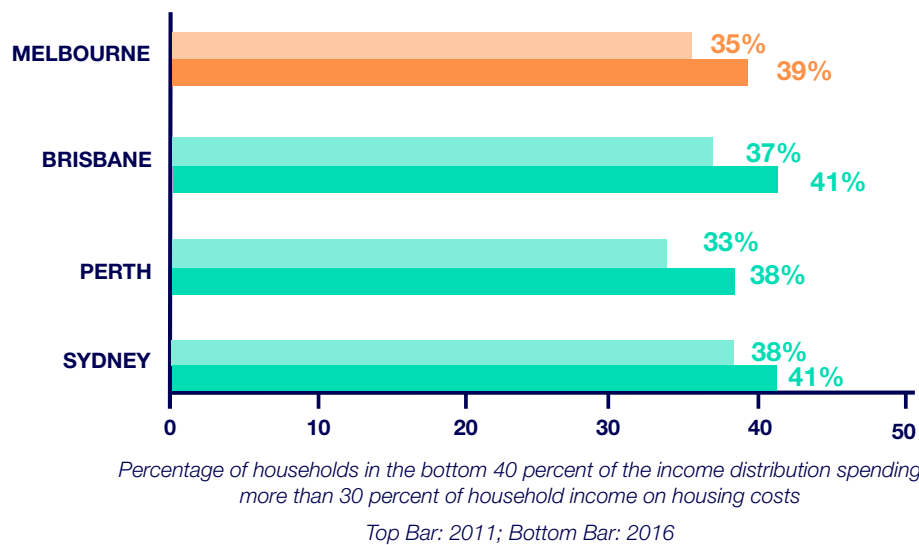
Housing Affordability

What does the policy say?

At the time of the review, we found no measurable spatial policies for housing affordability in Victoria.

How does Melbourne rate on the national liveability indicator?

We measured housing affordability nationally using the well-known 30/40 housing affordability stress measure [12]. 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 [13].



- Based on 2016 Census data, 39% of lower-income households in Melbourne are experiencing housing affordability stress.
- In Melbourne, like most other cities, housing affordability stress has increased between the 2011 and 2016 Census. However, suburbs with the highest levels of housing stress are 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.

Employment

What does the policy say?

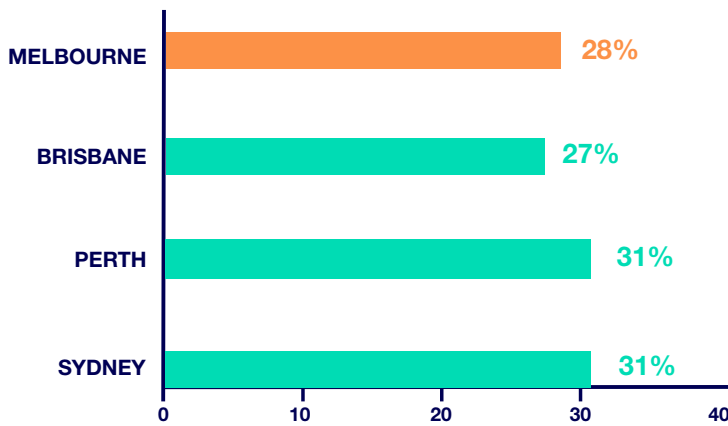
At the time of the review, we found no measurable spatial policies about providing employment in local areas or encouraging public and active transport to work in Victoria.

How does Melbourne rate on the national liveability indicators?

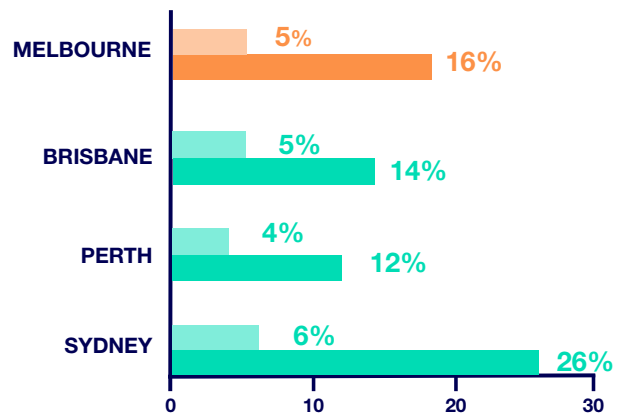
We measured employment nationally using two indicators:

- 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.

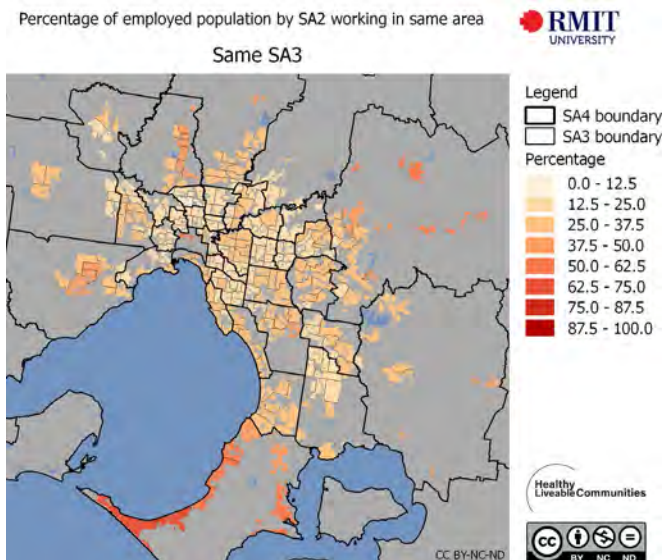
Based on 2016 Census data:



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



- 28% of employed people in Melbourne live and work in their broader local area, which is less than in Perth and Sydney (31%), but slightly higher than in Brisbane (27%).
- Only 5% of employed people in Melbourne use active transport to travel to work, which is similar to Sydney and Brisbane. However, compared with Perth and Brisbane, Melbourne has a higher percentage of employed people using public transport to travel to work (16%).

Given almost one third of employed Melbourne residents live and work in their broader local area, there may be an opportunity to increase active and public transport journeys to work if further investment in appropriate infrastructure were provided.

Food Environment

What does the policy say?

In Victoria, the Precinct Structure Planning Guidelines require **80-90%** of residents to have access to an activity centre anchored by a supermarket within 1 km.

▼ **40%** of residences and **11%** of suburbs in Melbourne meet this target.

Victoria is the only state with a measurable spatial policy that includes a target for implementation related to creating a healthy food environment. Since the presence of an activity centre affects the walkability of an area, this policy is also included in the Walkability domain.

How does Melbourne rate on the national liveability indicators?

We measured the food environment nationally using two indicators:

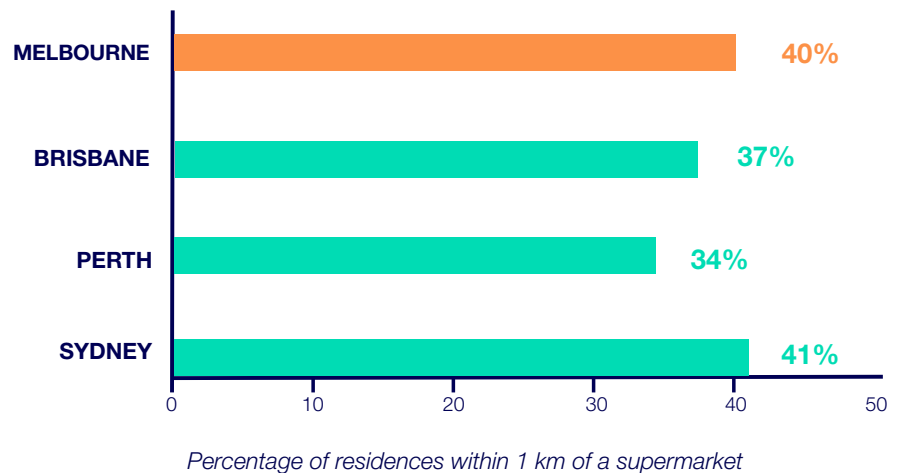
- access to a supermarket within 1 km
- the healthy food ratio, measured as the percentage of healthy food outlets within 3.2 km as a proportion of all food outlets

Our previous research found modest increases in body mass index in people living in areas with healthy food ratios less than **75%** [10, 14].

■ **40%** of residences in Melbourne are within 1 km of a supermarket, which is similar to Sydney (**41%**) but higher than Brisbane (**37%**) and Perth (**34%**).

■ Melbourne has a healthy food ratio of **47%**, 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.

▼ Just **2%** of suburbs in Melbourne have a healthy food ratio of **75%** or more, which is lower than other cities. This means these suburbs have better access to healthy food relative to fast food outlets.





Alcohol Environment

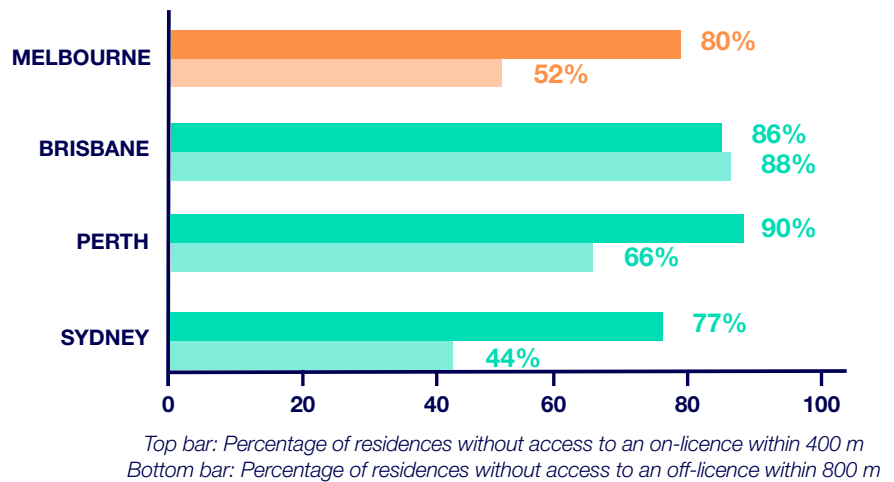
What does the policy say?

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

How does Melbourne 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 [15] and alcohol-related violence [16].

- 80% of residences in Melbourne are **not** within 400 m of an on-licence alcohol outlet. This is higher than Sydney (77%), but lower than Perth (90%) and Brisbane (86%).
- 52% of residences in Melbourne are **not** within 800 m of an off-licence alcohol outlet. This is higher than Sydney (44%), but lower than Brisbane (88%)² and Perth (66%).



² 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 Melbourne

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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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