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AHURI submission to Victoria's Draft 30 Year Infrastructure Strategy

AUSTRALIAN HOUSING AND URBAN RESEARCH INSTITUTE

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About AHURI

As the only organisation in Australia dedicated exclusively to housing, homelessness, cities and related urban research, AHURI is a unique venture. Through our national network of university research partners, we undertake research leading to the advancement of knowledge on key policy and practice issues.

AHURI research informs the decision-making of all levels of government, non-government sectors (both private and not-for-profit), peak organisations and the community, and stimulates debate in the media and the broader Australian community.

Our mission is to inform and impact better housing, homelessness, cities and related urban outcomes through the delivery and dissemination of relevant and authoritative research. To achieve this mission we deliver four key programs.

National Housing Research Program

AHURI's National Housing Research Program (NHRP) invests around \$4 million each year in high quality policy-oriented housing research and associated activities. We broker engagement between policy makers, key stakeholders and researchers. This allows us to undertake research that is immediately relevant and actively contributes to national housing policy development.

Our network of university research partners conducts research on key policy issues utilising a variety of research activities. This ensures the flexibility to undertake longer-term projects when fundamental research is needed, while also responding quickly to new strategic policy issues as they arise.

Australian Cities Research Program

AHURI launched a [National Cities Research Program Strategic Agenda](#) in 2020. We are enhancing our significant evidence base on housing and homelessness policy and solutions, and consolidating our role in delivering integrated and robust evidence to guide policy development. AHURI is working with governments and relevant stakeholders to expand our role in delivering research that informs urban policy and the shaping of cities in Australia. We are investing in, and developing partnerships for a National Cities Research Program.

Professional Services

AHURI Professional Services draws on our in-depth understanding of housing, homelessness, cities and urban policy and the expertise of AHURI's national network of Research Centres. We deliver evidence reviews and synthesis, policy engagement and transfer, and are experts in research management and brokerage.

Conferences, events and engagement

Our conferences, events and communications stimulate professional and public dialogue. We disseminate research in innovative ways and engage with government, private, not-for-profit sectors and the community.

National Network of AHURI Research Centres

There are currently eight AHURI Research Centres across Australia:

- AHURI Research Centre—Curtin University
- AHURI Research Centre—RMIT University
- AHURI Research Centre—Swinburne University of Technology
- AHURI Research Centre—The University of Adelaide
- AHURI Research Centre—The University of South Australia
- AHURI Research Centre—The University of New South Wales
- AHURI Research Centre—The University of Sydney
- AHURI Research Centre—University of Tasmania.

Introduction

AHURI is pleased to make this submission in response to Infrastructure Victoria's draft 30-Year Infrastructure Strategy for the state.

Our submission has been structured according to the same four main ideas that give shape to the Infrastructure Strategy itself:

1. Confront long-term challenges
2. Manage urban change
3. Harness infrastructure for productivity and growth
4. Develop regional Victoria

The detailed content of the submission is derived from AHURI's extensive body of evidence and research on housing, homelessness, cities, and urban policy issues.

In preparing this response, AHURI has systematically examined this evidence base to highlight the many independent, peer reviewed research findings that speak to the issues and ideas raised in the draft Strategy. In doing so, we have been able to offer informed comment on key aspects of most areas included in the Strategy.

Our 2020 research program agenda included eight additional research projects that focused on providing rapid evidence to inform the response to and recovery from the impacts of the COVID-19 pandemic on housing and cities. We have also drawn upon this evidence in our response.

Finally, in developing our National Cities Research Program Strategic Agenda over the course of the last eighteen months, AHURI has identified a range of issues that may also be relevant to the further development and finalisation of Victoria's Infrastructure Strategy. These include recognising the public benefits of infrastructure, measuring long-term benefits of social infrastructure and improvements to public amenity in land-use planning, and the importance of setting measurable targets for improvements.

Confront long-term challenges

Recent AHURI research addresses long-term challenges Victoria is facing in response to the current COVID-19 pandemic and demographic shifts of Australia's population. Also, AHURI research provides evidence relating to the issues raised in the Infrastructure Victoria strategy, in regard to navigating energy transition, embracing technological opportunities and building a circular economy.

The COVID-19 pandemic presents challenges for Australian cities and urban infrastructure in terms of transport, high density living, demand for central business accommodation, tourism and major industries. AHURI's COVID-19 Research Agenda provides evidence to enhance decision making that affects many of the most vulnerable Australians, as well as supporting the economic recovery from the crisis (AHURI 2020). AHURI research suggests that the COVID-19 has unequal impacts across the urban landscape with households having very different exposures to the disease (Horne et al. 2020). Spatial inequalities are manifest between more wealthy inner-city areas and outer urban areas with higher proportions of recent immigrants, lower income households and those with lower levels of education living there. The research indicates that a lack of infrastructure exacerbates spatial inequalities by limiting local employment opportunities and reducing access to employment in other areas (Horne et al. 2020).

The demographic shift of Australia's population is impacting the use of infrastructure. AHURI research shows that demographic changes in Australia consist of an accelerated ageing of the population and substantial decline in household formation rates and average household size (Flood and Baker 2010). For ageing residents experiencing an increasing deterioration of ability with age, and the increasing likelihood of requiring assistance with core activities, the accessibility to infrastructure is a relevant feature (Judd et al. 2010). Assisting ageing residents requires, amongst other things, the provision of appropriate, age-friendly neighbourhood facilities and transport infrastructure (Judd et al. 2010). The research recommends addressing barriers that prevent ageing residents from participating in public life. Aspects to consider include distances to transport nodes, access to railway stations and onto buses, and the quality of paths of travel to neighbourhood facilities and transport infrastructure (Judd et al. 2010).

Navigate the energy transition

The Infrastructure Victoria strategy proposes several requirements to improve the energy efficiency of housing including to:

- Require 7-star energy rated new homes in 2022, increasing towards 8 stars by 2025
- Mandate a home energy rating disclosure scheme (Recommendations 4, 5)

AHURI research supports the initiative to reduce the energy consumption of homes, improve their energy efficiency and enable residents to save on energy costs. AHURI research has investigated the potential benefits of improving the thermal performance of Australia's private rental housing (Gabriel et al. 2010). These include: reducing carbon-emission from Australia's residential sector significantly, improved health and well-being outcomes for tenants and potential long-term economic benefits for landlords (Gabriel et al. 2010).

Recent AHURI research has investigated housing policy solutions to reduce the impacts of energy hardship within Australia's rental housing market (Daniel et al. 2020). The research recommended the introduction of a minimum standard for the energy performance of rental properties. Increasing the thermal performance of Australia's rental housing stock to acceptable standards is likely to deliver a population-wide benefit, such as improving health outcomes and minimising energy consumption (Daniel et al. 2020). For the Australian private rental sector, the following policy options could be pursued:

- All new properties have a higher standard of thermal performance mandated, increasing the standard of rental properties over time.
- Prior to letting, the thermal performance of rental properties is disclosed to potential tenants. This would inform potential tenants on their likely energy costs and/or impacts on comfort.
- Establishing a platform to disclose information on thermal performance of private housing stock voluntarily (Daniel et al. 2020).

The research also notes that new homes only account for a small percentage of the overall housing stock. Limiting higher standards on thermal performance to new builds will have only a marginal impact, therefore. The research proposes to develop additional schemes to encourage energy-saving measures, such as incentives to landlords to improve the thermal performance of their rental property (Daniel et al. 2020).

Embrace technological opportunities

Technological innovation and digital transformation is occurring rapidly, and this has accelerated due to the changes brought about by the need for physical distancing in the context of the COVID-19 pandemic. Providing quality digital infrastructure and access to innovative technologies are critical issues for Australia's cities and regions (AHURI 2020a).

In addition to the issues raised in the Infrastructure Victoria strategy, the impact on housing policies should also be considered. AHURI research has presented the opportunities and challenges for housing policy brought about by the emergence of new digital and disruptive technologies (Pettit et al. 2018). The research identified more efficient allocations of housing stock, more accurate and transparent property management systems, and better-informed planning and development processes as potential opportunities of technological change (Pettit et al. 2018).

A key technological disruption to the housing market is the rise of short-term letting platforms, such as Airbnb. AHURI research has examined the ways these platforms are reshaping housing opportunity in private rental markets in Melbourne and Sydney (Crommelin et al. 2018). The research found that short-term letting platforms contribute to increasing unaffordability of housing in inner city areas by removing properties from the long-term rental market (Crommelin et al. 2018). The research noted the need for policies and regulatory frameworks to respond to technological change, such as those occurring through short-term letting platforms (Crommelin et al. 2018). Further AHURI research in 2020 observed that COVID-19 restrictions on short term letting resulted in return of some stock to the rental market, through this effect is not anticipated to be enduring (Buckle et al. 2020).

Build a circular economy

The proposed recommendations in the Infrastructure Victoria strategy to build a circular economy aim to improve recycling and reduce waste. AHURI has recently funded an Inquiry through the 2021 Funding Round of the National Housing Research Program that focuses on housing in a circular economy (AHURI 2020b).

The AHURI Inquiry aims to establish an evidence base and framework to support a transition to circular economy housing in Australia, contributing to more sustainable housing outcomes. The research will be informed by analysis of national and international data, industry and building site practice and key informant sources. The Inquiry draws on four research projects to inform a transition plan towards circular economy housing focusing on following key problems and opportunities:

- Neighbourhood scale housing developments: Opportunities for neighbourhood scale circular economy housing
- The apartment industry: Delivering circular economy sustainable apartment housing
- Large scale housing retrofit: Circular economy opportunities and pragmatic solutions for social housing
- Building materials supply chains for circular economy housing (Horne et al. forthcoming)

Manage urban change

AHURI evidence is consistent with the focus of the Infrastructure Victoria strategy of managing urban change by not only building new infrastructure, but utilising and integrating existing infrastructure better. AHURI's cities Strategic Agenda emphasises that managing urban change depends on urban policies actively planning the transition to more sustainable, equitable and just cities. This includes access to quality, affordable housing close to employment and services, to ensure on-going prosperity and liveability of Australian cities for all residents (AHURI 2020c).

Integrate land use and infrastructure planning

AHURI research supports the Infrastructure Victoria strategy to better integrate land use and infrastructure planning. In addition to renewing and constructing new infrastructure, the planning of infrastructure would benefit from a more integrated approach (AHURI 2020d). For example, in urban growth areas the timely delivery of social infrastructure is as essential as other 'hard' forms of infrastructure for economic, health and social benefits. In the planning of transport this could entail enhancing options close to employment opportunities, social services and affordable and social housing (AHURI 2020e).

AHURI research has emphasised the need for a large scale renewal of the middle ring 'greyfield' areas in Australian cities, which are dominated by aging housing stock and underutilised land, to better utilise existing land and infrastructure and accommodate future population growth (Newton et al. 2011; Murray et al. 2015). Increased housing supply in middle ring suburbs is not only a question of delivering higher density, but also requires the delivery of services, infrastructure and amenity. An integrated approach of housing and infrastructure provision ensures more equitable and sustainable outcomes are achieved, whilst accommodating population growth and transforming the built environment (Murray et al. 2015). Developing greyfield sites through a precinct-scaled approach would also provide a range of construction and management efficiencies, as well as opportunities for district-wide sustainable infrastructure and public realm upgrades (Murray et al. 2015).

Create thriving urban places

The Infrastructure Victoria strategy aims to create thriving urban places, including following recommendations:

- Support more homes in priority established places
- Deliver very low income housing with inclusionary zoning (recommendation 35, 36)

Proximity of affordable housing to public transport services

AHURI research has shown that labour force participation and economic growth are impeded by limited affordable housing supply for low-income earners close to job-rich areas (Ong et al. 2017). To promote labour force participation and economic growth, housing policies should focus on housing supply responsiveness, labour mobility, employment decisions and consumption (Ong et al. 2017). AHURI research has also detailed the value of providing affordable housing in proximity of public transport services (Dodson et al. 2020). Benefits include enhancing labour market access, reducing commuting burdens and road congestion. There are sites in Melbourne (and in Sydney) with potential to support development of housing that is affordable to low-income households and close to employment nodes (Dodson et al. 2020). However, the number of sites is not large enough and market processes are not likely to deliver affordable housing without intervention. The research recommended policies to subsidise housing, specifically to support affordable housing developments close to public transport systems (Dodson et al. 2020).

Infrastructure provision for high-density living

AHURI research has illustrated an increasing number and proportion of Australians living in apartments, with lower-income households more likely to live in higher density housing (Easthope et al. 2020). Planning and infrastructure provision, such as through the delivery of neighbourhood amenities and facilities, impacts the experience of lower-income households. Insufficient access to green spaces, loss of acoustic and visual privacy, overshadowing and road congestion can have negative effects on residents' health and wellbeing. The research recommends residents' need for shared private and public spaces is taken more specifically into account through comprehensive precinct planning in the development of high-density apartments (Easthope et al. 2020).

Providing affordable housing: Inclusionary zoning

AHURI research investigated the potential of inclusionary planning mechanisms to support the supply of affordable housing, by enabling access to land and resources for affordable housing development (Gurran et al. 2018a). There is scope to increase the use of mandatory inclusionary planning mechanisms, in particular, in high growth residential areas in Australian cities. Few inner-city planning schemes (inner Sydney, Perth) apply inclusionary planning mechanisms to help fund social housing development. The research recommended that inclusionary planning mechanisms be designed and coordinated with planning incentives that support and encourage overall housing supply targeted to local market conditions. This would allow inclusionary planning mechanisms to have wider application (Gurran et al. 2018a).

AHURI research has illustrated that planning mechanisms, like inclusionary zoning, on their own do not provide sufficient supply of affordable housing, in particular in high value urban renewal or infill areas (Davison et al. 2012). In addition, further resources in the form of land dedication or government funding are needed to supply affordable housing. Diverse funding and cost offsetting opportunities should be utilised in the design and implementation of schemes aimed at increasing affordable housing (Davison et al. 2012).

Adapt infrastructure for modern needs

In addition to the recommendations stated in the Infrastructure Victoria strategy, AHURI's cities Strategic Agenda analyses current Australian city policy, highlighting policy implications and presents future lines of inquiry (AHURI 2020f).

The Strategic Agenda emphasises the importance of infrastructure planning to be developed through an integrative approach to best anticipate future needs. This can include embracing new technologies and renewable energies to help manage the supply of energy and water resources and facilitate the transition to a more sustainable urban form (AHURI 2020d). Key questions to consider include the following:

- How can Australia's future water and energy systems be designed to meet increased demand and sustainability goals? What is the role for innovative technology?
- How is better coordination in infrastructure planning and funding contributing to the development of Australian cities?
- How can clear funding streams and improved coordination for social infrastructure delivery be achieved? (AHURI 2020d)

Harness infrastructure for productivity and growth

AHURI research has demonstrated that housing markets play an important role in productivity and local competitiveness. Housing price and cost outcomes can drive firms and households to locate in less than optimal locations. Housing investments can have an impact on productivity through improving regional and local area economic performance, attracting human capital and business capital and innovation (Maclennan et al. 2015). Nevertheless, housing and planning policies have tended to either focus on interventions that address the poorest households or on home ownership. Impacts on productivity have mostly not been considered.

Where housing markets are not efficient, economic surpluses can be 'exhausted' by commuting and other costs. Those making decisions about infrastructure can tend to view these as exclusively transport issues rather than joint housing and transport problems (Maclennan et al. 2015). However, policy options to reduce commuting burdens might include mechanisms to redistribute employment, and provide more affordable housing, as well as improving transport networks (Dodson et al. 2020).

In a post-COVID environment, consideration of housing as a place of work has also become more apparent, especially in Melbourne, and this may have implications for commuting, and the location decisions of businesses and employees (Holloway et al. 2020).

Modelling in the context of Sydney found that investments in affordable housing would yield significant productivity benefits (mainly in terms of human capital improvements) which would outweigh the costs of the additional housing (Maclennan et al. 2019). There is scope to consider social housing as a form of infrastructure (Flanagan et al. 2019; Lawson et al. 2019). At present, some federal funding has been allocated as part of the National Housing Infrastructure Fund to address infrastructure-related supply bottlenecks in the provision of affordable housing. There is also scope for state governments to capture through inclusionary zoning mechanisms the value created by planning decisions and utilise this for physical infrastructure and affordable housing contributions (Gurran et al. 2018).

Shape the transport network for better access

The Infrastructure Victoria strategy recommends several initiatives to reshape and improve the transport network in Melbourne, including:

- Reshape metropolitan bus networks
- Improve connections to suburban jobs through premium buses and road upgrades
- Increase suburban rail corridor services and capacity
- Reconfigure the city loop for cross-city train services
- Prepare for Metropolitan Metro Two by managing and growing demand along the proposed corridor
- Future option for cross-city motorway (Recommendations 62, 63, 64, 65, 66, 67).

A particular objective of some of these initiatives is to improve connection to suburban jobs (Recommendation 63).

AHURI finds that access to affordable housing is important for improving economic productivity. Adequate and accessible transport infrastructure can help to reduce those costs (Maclennan et al. 2015).

Despite researchers highlighting the importance of housing and transport for spatial labour markets and productivity, minimal consideration of these issues is evident in policy frameworks – including around state planning policies and federal infrastructure planning (Dodson et al. 2020). This should go beyond simple framings around labour market depth, breadth, or access, to also consider the costs of accessing work relative to the economic value produced. AHURI research (Dodson et al. 2020) found that low-income people face significant cost burdens for commuting to access employment in Melbourne. The commuting burden comprised 9.4 per cent of income for Q2 renters (renters receiving incomes in the second quintile) in Melbourne. Of the 12,000 commuters with above average commuting burden in Melbourne, 5,000 were to the top 10 employment destinations for this group. Patterns like this make a locationally targeted transport policy difficult to apply.

This research also found extensive market underutilisation of residentially zoned land in Melbourne. The planning system clearly intends that residential development should occur at much higher average dwelling yields per unit area of land than the market is supplying under present conditions.

Plans for growth areas

The Infrastructure Victoria strategy recommends a number of initiatives to plan for growth areas including to:

- Prioritise and oversee infrastructure delivery in growing communities
- Expand rail access in outer suburbs
- Expand and upgrade Melbourne's outer suburban road network.

While transport infrastructure and environmental amenity are both important priorities in growth areas such as outer suburbs, so also are social or community infrastructure and affordable housing supply. A key issue is how well different levels of government set targets, evaluate and plan for this infrastructure. Forthcoming AHURI research is examining provision of housing and social infrastructure in Sydney, Brisbane and Perth (however not in Melbourne). This will include the way governments coordinate social infrastructure in line with population growth and housing development (Sarkar, forthcoming).

Align social infrastructure with better service delivery

Social Housing targets

The Infrastructure Victoria strategy proposes to improve alignment between social infrastructure and better service delivery, through setting targets to grow social housing (Recommendation 73). The AHURI evidence base provides substantial support for this initiative.

Social housing is not often considered as part of new housing developments, and yet it is an essential component of wider investments to facilitate growth. AHURI research supports Infrastructure Victoria's goal of setting targets to grow social housing (e.g. Gurran et al. 2018b; Randolph et al, 2018). AHURI research also supports on-going monitoring of housing need so these targets can be updated (Rowley et al. 2017).

AHURI research has shown that over the last 30 years, social housing has remained stagnant in absolute terms and has declined in relative terms – mainly due to stagnant funding, and political philosophies favouring private forms of housing. This is despite other trends such as deinstitutionalisation, poorly performing private rental, and economic restructuring placing further pressures on demand for social housing. These pressures have been managed through processes of increased targeting (so that social housing is targeted to the most disadvantaged), growth of community housing, and estate renewal. Victoria has for a number of years provided the lowest proportion of social housing as a proportion of all dwelling stock of all states and territories, and Melbourne has the lowest proportion among all state and territory capital cities (Groenhart and Burke 2014). Setting a goal for social housing as a fixed percentage of all housing stock in line with the national average has a number of advantages: it would provide a stimulus to increase supply to match outcomes in other states, and would work against the trend towards a drift downwards in the relative supply of social housing over time.

There are, however, other justifications for increasing social housing supply that might also be considered:

- 1. Housing Need:** AHURI research has identified a rational approach to justify more social housing is to supply according to need. There are several measures of need that have been developed. While waiting list data are sometimes used, a more sophisticated approach uses modelling. One such approach finds that at present there are only 46,500 social housing dwellings in Greater Melbourne, but there is a need for 121,000 dwellings. This is likely to increase to 174,000 dwellings by 2036 (Lawson et al. 2018). A different methodology, focusing on all housing need, suggests there was a need across Victoria for 291,000 additional houses in 2017, which will rise to 462,000 in 2025 (Rowley et al. 2017). Earlier modelling for Australia found that if all those who satisfied public housing eligibility criteria and who pay more than 50% of income in rent were accommodated in public housing, public housing would need to increase by 43%, and total social housing would be 6.6% of all stock instead of being less than 4%. This might entail a higher target than suggested in the strategy (Groenhart and Burke 2014).
- 2. Benefits of social housing:** making an argument for social housing could entail identifying benefits (e.g. via cost benefit analysis), market failures and tackling perceptions that governments can't afford these investments. A key problem in this approach is that the core benefits of social housing (social inclusion, education and employment) are not measured or traded in markets, occur over long periods of time or are multidimensional. An alternative is to use public health evaluation methodologies (Groenhart and Burke 2014).
- 3. Appropriate supply of social housing:** For investments in social housing to be effective for its clientele, they will need to be located near to social amenity and public transport. A simple requirement for more social housing might just result in more housing being built in fringe areas that are poorly located to services. Government investments will also need to be purposeful: planning will need to consider needs of potential clients, have adequate funding and appropriate regulation.

Mental Health infrastructure

The Infrastructure Victoria strategy proposes delivery of infrastructure for a better mental health system (Recommendation 75). AHURI research is supportive of efforts to improve infrastructure for a better mental health system. This includes the provision of independent housing in the community, community level mental health supports, and neighbourhood informal infrastructure, like the local park and community spaces, where people experiencing mental ill-health can gradually find their way in the local community (Duff et al. 2013). Recent AHURI research showed that there are significant gaps in the way mental health support is provided which leads to trajectories into mental ill-health and homelessness. A significant obstacle to preventing mental health issues, and promoting recovery, is the lack of accessible, long-term, affordable and secure housing for people with mental health issues, with good access to family and neighbours, work and volunteering opportunities (Brackertz et al. 2020). In this respect, access to appropriate and affordable housing should be considered in combination with access to mental health service supports.

Develop regional Victoria

AHURI research is consistent with ambitions to develop regional Victoria, and in particular efforts to upgrade and address available housing options in those locations.

The Infrastructure strategy might also be enhanced by considering the particular needs of people with disabilities and Indigenous communities (see below).

Foster regional Victorians' health, safety, and inclusion

The Infrastructure Victoria strategy proposes to foster regional Victorians' health, safety, and inclusion, including through:

- Funding more Youth Foyers in regional Victoria (Recommendation 93)
- Expanding social housing in regional centres, in locations with good access (Recommendation 94), and
- Making social housing suitable for changing local climates (Recommendation 95).

AHURI research is supportive of these initiatives as outlined below.

Foyers

AHURI research shows that Foyers are effective in helping to address homelessness among young people, including in regional areas (Randolph and Wood 2001; Beer et al. 2005).

More recent evidence suggests that Foyers should focus on those leaving Specialist Homelessness Services (SHS), rather than be made available to all at-risk youth (MacKenzie et al. 2020). In this sense, they would be best made available in regional centres where SHS services, and employment and education, are available.

Social Housing in regions

AHURI research finds that there are:

- clear issues of market failure in the private rental market in many regional locations with consequent issues for affordability for low income earners
- issues around accessibility for first home buyers, and
- inadequate supply of social housing (Beer et al. 2011).

Inadequate private rental supply is linked with lack of rental investors, inappropriate planning regulations and low wage labour markets. Collecting better information, increasing social and affordable housing provision, and targeted initiatives to promote housing development might address these issues. Infrastructure to match housing in those regional areas is an important ingredient (Beer et al. 2011).

Climate and energy hardship

AHURI research shows that climate has significant implications for householders (Daniel et al. 2020). Exposure to energy hardship is likely when those with very low or no income, existing health issues, lack of support networks, or who face entrenched disadvantage, live in dwellings that are in poor condition. It is estimated that around 40% of Australian households who rent face energy hardship. This is a particular issue for renters in regional areas. Although social landlords often take the opportunity to renew housing between tenancies, some renters occupy their housing for substantial periods of time, leading to substantial declines in quality of housing. Many renters asking for improvements in heating or cooling had their requests rejected. Reducing energy hardship for renters will require new investments in the public housing sector, as well as improved regulation and targeted support in the private rental sector (Daniel et al. 2020).

People with disability

People with disability living in regional areas are especially disadvantaged and socially excluded because they live at a distance from services and opportunities. They are often located in outer suburban or regional areas because of the lower housing cost, and those in regional areas have additional problems in accessing public transport.

The provision of additional social housing will advance the wellbeing and social inclusion of people with disability, though locating such housing should not lead to concentrating large numbers of people with disability in one location, which would have negative effects. The housing should also be located near to amenities like transportation (Tully et al. 2011).

Indigenous disability housing

While the NDIS promises to revolutionise the way people with disabilities are assisted, including Indigenous persons, there are particular issues that are associated with people with disabilities in Indigenous communities. The prevalence and complexity of impairments in Indigenous communities is often not fully captured in Government data. Indigenous persons in remote and rural areas (as well as urban areas) often have trouble accessing appropriate housing (i.e. that is both visitable and accessible). Community infrastructure to allow people with disability to participate in community life, as well as specialist facilities for Indigenous people with disability that both cater for disability and cultural needs are also critical (Grant et al. 2017).

Crisis and transitional accommodation

A significant issue for Indigenous families experiencing family violence is the lack of access to crisis and transitional accommodation. This shortage is especially apparent in regional and remote communities. Indigenous women are routinely turned away from refuges and safe houses because these are at capacity. This means many are trapped in a 'revolving door' between crisis, transitional services and homelessness – or risk returning to an unsafe home. It exposes these women to high rates of domestic and family violence related injury and death (Cripps et al. 2019). There is a particular need for more crisis accommodation to be provided to Indigenous women with mental health and behavioural issues, and for women with accompanying male children aged 12-14. Although this study was based mainly on evidence from NSW and the Northern Territory, it would be important to investigate its relevance to Victoria.

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