

PATREC PERSPECTIVES



Sustaining Local Communities through Ageing-in-Place: Bus Transport in WA's Wheatbelt Region

In Australia, there is a growing trend for older people to age-in-place, defined as a person's ability to live independently in their home and community with access to affordable services. Despite higher levels of social connectedness compared to urban areas, regional communities often face the challenges of reduced local aged services, health facilities and transport infrastructure. The *Creating Age-Friendly Communities in Small Towns* Project aims to improve community infrastructure and health care services to older residents living in Western Australia's Wheatbelt. Funded by the State Government's *Royalties for Regions* Program, this project represents the State's single biggest investment into the Wheatbelt aged care industry in WA's history. A pilot bus service enabled through the project's Small Grants Scheme has provided valuable insight for the development of an integrated transport plan to identify innovative ways to provide improved transport options for the community.

Ageing-in-Place

Staying at Home

- Recent academic literature suggests that the majority of persons over 75 years of age wish to remain in their homes for as long as possible.^{1,2} Older people who are given the choice to remain in familiar settings have more positive outcomes in terms of independence, social participation and health than if they had to leave home.³
- According to the World Health Organisation, an age-friendly community:
 - recognises the great diversity among older people;
 - promotes older people's inclusion and contribution in all areas of community life;
 - respects older people's decisions and lifestyle choices; and
 - anticipates and responds to ageing-related needs and preferences.

Policy Implications

- The concept of ageing-in-place follows the emerging belief that a rapidly growing and ageing population will place an increasing challenge on resources.⁴ Creating infrastructure and policies that enable residents to be self-reliant and remain in their community over time is one solution to this potential burden. The high rate of home ownership in the 65 and over age group has provided security of tenure for many residents and influenced the development of ageing-in-place as a primary theme in Australian age care policy.⁵
- The Australian Government has included the concept of ageing-in-place in recent aged care reforms.⁶ In particular, the changes aim to offer choice and flexibility to ageing residents and support people to

stay in their homes. Age-friendly community planning aims to enhance the options available to ageing residents in regional Australia in order to enable them to make independent decisions and maintain control of their lives for as long as possible.

- Despite higher levels of social connectedness compared to urban areas, regional communities often have issues with the availability of appropriate housing, support infrastructure and access to services and transport.⁷ The policy discussion around an individual's ability to age-in-place is more pronounced in regional Australia due to the extra challenges associated with supplying these services.

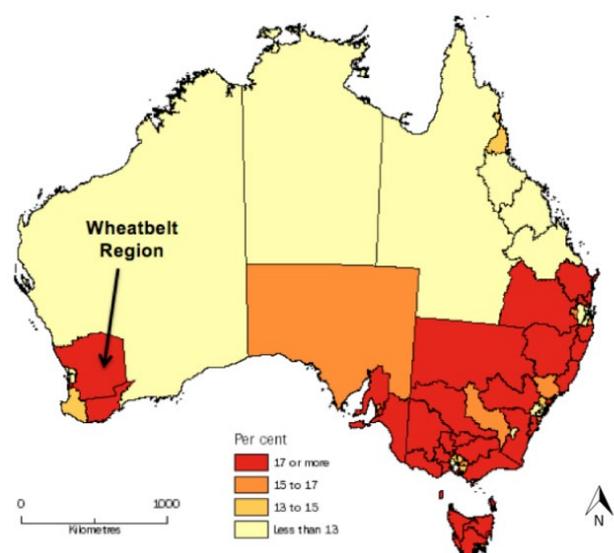


Figure 1: Population aged 65 years and over, Australia. Note: figures rounded up. Source: *Population by Age and Sex Australia, 2013* (Australian Bureau of Statistics 2014)

Ageing in the Wheatbelt

- Small regional towns have experienced a decline in the provision of health care and other key services. Access to essential services in WA's Wheatbelt is now limited by their availability and poor transport provision.⁸
- Rationalisation has resulted in people in regional and rural areas needing to travel outside their local towns to access essential services.⁹ High car dependency in the Wheatbelt may result in a loss of self-esteem and mobility when an individual is deemed unfit to drive, or when they lose access to a private vehicle.¹⁰
- Limited public transport options and under-utilised shire buses have resulted in an over-reliance on voluntary ambulance services for patient transfers, social isolation and expensive overnight stays in regional centres or metropolitan areas.¹¹
- These issues frequently result in older people permanently leaving their Wheatbelt community and families in order to access the support and care services they require.

Creating Age-friendly Communities in Small Towns: *Local Transport Solutions Project*

- In 2014 the WA State Government commenced a \$2.53 million program, **Creating Age-Friendly Communities in Small Towns** (CAFC in Small Towns), which aims to improve community infrastructure and health care services for older residents living in the Wheatbelt. Funded by the Royalties for Regions Program¹², this major undertaking represents the State's single biggest investment into the Wheatbelt aged industry in WA's history.
- The CAFC in Small Towns Project was completed in two phases between 2014 and 2016 and helped to address aged care issues across the Wheatbelt by:

1. Providing an age-friendly community planning toolbox that included: an audit tool to identify specific age-friendly infrastructure and service gaps; a prioritisation worksheet to rank projects to fill infrastructure gaps; and a planning guide to assist local governments develop an age-friendly community plan (Phase 1);
2. Providing funding in the form of a **Small Grants Scheme** to act as a catalyst for the implementation of infrastructure projects identified in the age-friendly community planning process (Phase 1); and
3. Developing an integrated transport plan to identify innovative ways to provide improved transport options for the community (Phase 2).

- Within the Small Grants Scheme (2), the CAFC – **Local Transport Solutions Project** aimed to improve transport options for older residents living in the Wheatbelt. This project focused on identifying transport options from small towns to regional centres, allowing older residents across the region to better access key services and infrastructure including health and medical, specialty retail, as well as recreation and social opportunities.
- Three pilot bus services were trialled to investigate the potential demand and impact of a community transport model in the Wheatbelt. These three bus pilots were active for six months, between February 2016 and July 2016. The pilot routes included:

- **Wheatbelt South (fortnightly service)** – Shire of Kondinin (from Hyden) to Kulin, Wickepin and concluding in Narrogin.
- **Central Midlands (weekly service)** – Shire of Wongan Hills to Calingiri, Bolgart and concluding in Northam.
- **Coastal (weekly service)** – Jurien Bay to Joondalup, stopping at Cervantes, Lancelin, Sovereign Hill and Woodridge.

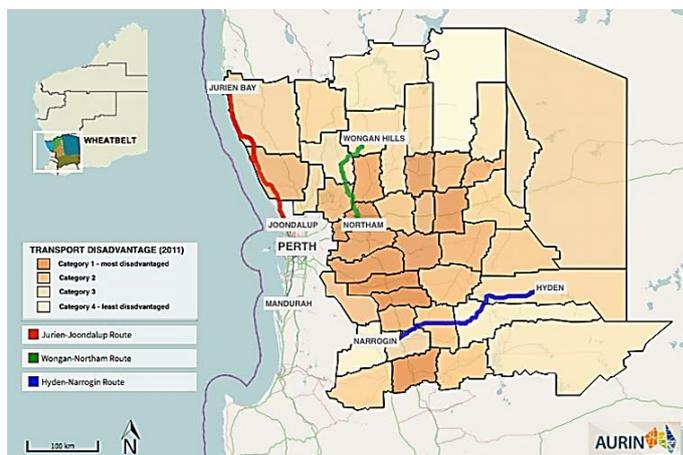


Figure 2: Pilot transport routes and a choropleth map of transport disadvantage in the Wheatbelt according to each Local Government Area (with darker shades of orange indicating a highly potential for residents to experience transport disadvantage). Data derived from ABS 2011 Census.

- The pilot services were run by the Wheatbelt Development Commission (WDC), in collaboration with the local shires of Dandaragan, Gingin, Kondinin, Kulin, Victoria Plains, Wickepin and Wongan-Ballidu.
- The findings from the three pilot services guided the development of recommendations for the provision of alternative and innovative transport options for older residents travelling from small towns to service centres.



AGE FRIENDLY COMMUNITY BUS SERVICE SHIRES OF KONDININ - KULIN - WICKEPIN TO NARROGIN

A Fortnightly Bus Service - providing access to your Regional Centre

SIMPLE + SAFE TRANSPORT SERVICE

1. BOOK & PRE-PAY FOR YOUR SEAT AT THE SHIRE OF KONDININ
2. ARRIVE AT THE ALLOCATED PICK-UP POINT IN YOUR TOWN
3. ENJOY YOUR RETURN TRIP TO NARROGIN FOR ANY APPOINTMENTS OR SPECIAL SERVICES

Feb-April Dates

Thursday 4 February
Thursday 18 February
Thursday 3 March
Thursday 17 March
Thursday 31 March
Thursday 14 April
Thursday 28 April

BUS TIMETABLE

Location	Time
Departs Hyden	8.00am
Departs Kondinin	8.40am
Arrives Narrogin	10.40am
Departs Narrogin	3.00pm
Arrives Kondinin	4.55pm
Arrives Hyden	5.30pm

Cost:

- \$15 Per/Person for Return Trip from Hyden
- \$10 Per/Person for Return Trip from Kondinin

For Information Call

9889 1006 (Kondinin Office)
9880 5160 (Hyden Office)

Method

- The WDC and UWA used a 'community mapping' approach¹³ to identify areas that require transport infrastructure according to their perception of disadvantage and created a reporting template for the pilot services that recorded evidence-based (qualitative and quantitative) information and community feedback. This included pre-screening surveys for first-time users, community surveys every two months for ongoing users and monthly operational surveys and bus driver surveys for general comments and observations.
- The **monthly operational monitoring survey** sought to gather the following information:
 - passenger numbers;
 - number of trips in the month (km's travelled);
 - record of fare collection; and
 - any operational issues with the service.
- The **community feedback evaluation** (conducted every two months) aimed to capture the following information:
 - user satisfaction with service;
 - things that work well, and areas requiring improvement; and
 - how the service fosters age-friendly communities.
- To compare changes in wellbeing as a result of the pilot transport services, short pre-screening surveys were administered to understand the passengers' alternative transport modes, frequency of visits to regional centres and the reasons for travel.
- The working party (comprising of UWA and WDC staff), met every three months to report on progress and the Centre for Regional Development was responsible for the interpretation and analysis of the qualitative data, analysing the findings with reference to the broader academic literature and identifying key barriers and enablers to transport options in the Wheatbelt.
- A literature review was conducted of international, national, state and local research. Additionally, case study examinations were carried out to establish trends and age-friendly transport options for regional areas. The barriers and enablers were analysed alongside information from the WDC pilot transport services in order to formulate local transport recommendations.

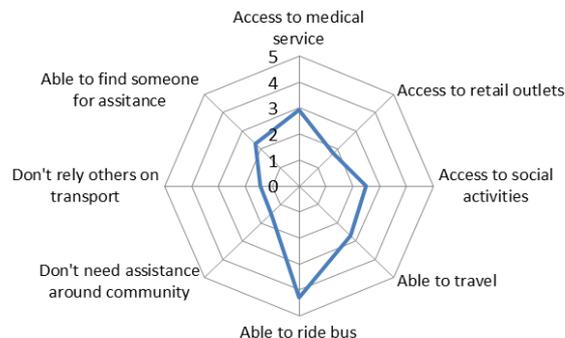


Figure 3: Quality of life for respondents with high mobility needs.

- Due to the low number of responses received in the pilot survey (19) a thorough cost benefit study to consider the range of savings to community and economy is not possible. Basing the valuation on work undertaken in Victoria¹⁴, we suggest that monetary equivalence for passengers without mobility difficulty is \$40 per additional trip, while \$55 per trip benefit for passengers with slight mobility difficulty and \$70 per trip for passengers with moderate-high mobility difficulty. Based on the survey responses, that indicated an average value of \$55 for the assumed willingness to pay.
- Although difficult to put a dollar value to social and mental wellbeing benefits, a sensitivity analysis is used to test the robustness of the breakeven ratio to the assumed marginal rate of substitution (MRS, similar to 'willingness to pay') value of \$55. Breakeven point is when the accrued welfare for the passengers is equal to the total cost of the service.

Route	Ave # of Pass	Passengers' Social Welfare		BCR*	Gov Sub	Fare Rev
Hyden to Narrogin	5	Low-\$40	\$200	0.6	\$245	\$75
		Base-\$55	\$275	0.9		
		High-\$70	\$350	1.1		
Jurien Bay to Joondalup	8	Low-\$40	\$320	0.7	\$280	\$180
		Base-\$55	\$440	1.0		
		High-\$70	\$560	1.2		
Wongan Hills to Northam	4	Low-\$40	\$160	0.6	\$205	\$70
		Base-\$55	\$220	0.8		
		High-\$70	\$280	1.0		

*Benefit to Cost Ratio

Results

- Social exclusion and inclusion have been widely studied within a number of disciplines and are understood to be critical in determining an individual's quality of life and sense of wellbeing¹⁴. This aligns with the survey findings, which reveal that older passengers relied on the pilot services to fulfil various social and health needs, and for the given timeframe and context of this study, the services positively impacted the social, physical and emotional wellbeing of the participants.
- Respondents were placed in 3 groups:
 - Group One: without mobility difficulty;
 - Group Two: with slight to moderate mobility difficulty;
 - Group Three: with moderate to high mobility difficulty.
- The third group with the highest mobility needs noted the most pressing concerns in relation to the impact of transport on their wellbeing.
- Based on the current average passenger numbers, local government needs to subsidise per return trip \$245 to operate the service between Kondinin and Narrogin, \$280 to support the service between Jurien Bay and Joondalup, and \$205 for the Wongan Hills to Northam service. Although the government expenditure accounts for the majority (60%-75%) of the total pilot service costs, the subsidies are less than the estimated passengers' social benefits. This suggests high return values from the expenditure.
- From a purely financial perspective, the operational cost of the service and the subsidy requirements are small and could easily be supported by local councils. From an economic perspective the service provides social (and potentially health) benefits that well exceed the patron's capacity to pay. Removing the service may result in a considerable loss in welfare for which any compensation by way of an alternative program may not be able to be provided for the same low level of funding.

Key Findings

1. The service offers an important opportunity for older rural residents to engage socially;
2. The number of passengers required to economically justify the subsidy is at least five; and
3. Considering the social and health benefits to passengers that are delivered by the service, there is a strong argument for all the services to continue.

Conclusions

- To be age-friendly, regional communities need to offer choice and opportunities for residents to access goods and services. In the Wheatbelt, a lack of public transport is one of the most significant issues facing an ageing population. The pilot transport services effectively and efficiently addressed local transport challenges facing older Wheatbelt residents being a population spread over a large geographical area, effectually creating opportunities to provide benefits such as reduced isolation and improved access to medical appointments.
- The services bolster all phases of the CAFC in Small Towns project, with transport and mobility being critical to support ageing-in-place. Improved mobility for older regional residents is an important element of the broader aged-friendly initiative because it reduces the physical gap in access to aged care services, supports independence and improves social connectedness.

"[The service] has given me a day to myself, for me to enjoy and meet other people from various communities in the Shire. [Being] able to have a carer for husband for most of the time out gives me peace of mind... [I] hope this service continues as I didn't realise how much a day out without [my] invalid husband was so beneficial."

– Passenger Seven

"We appreciate the bus service that has been trialled over the last 22 weeks. It has greatly affected us in a positive way by enhancing our social network and increasing our ability to reach medical appointments. We would be ever so grateful if it could become a regular service."

– Passenger led Petition for Jurien Bay to Joondalup service



Contributing Themes around Service Support

COLLABORATIVE SUPPORT

Local government behaviour, engagement and capability are a critical factor for success. It is recommended that the local governments underwrite the cost of empty seats on the service to encourage local government involvement and marketing. An external group such as the WDC should provide support for stakeholder communication and collaboration.

OPENNESS TO TECHNOLOGICAL ADVANCES

Low-order technological awareness exists across a number of smaller regional communities, particularly amongst older residents. Lower uptake of technology advances, such as phone apps, has created an obstacle for providers to integrate technology in age-friendly transport services in the region. However, technology can offer integration of social activities with mobility in regional areas. There is a lot of potential for greater outreach and greater integration of technology in age-friendly transport and mobility services. Therefore, it is recommended that each community explore how to educate residents in the use of technology such as apps, and be open to technological advances and initiatives in transport services. As technology innovations and trends are difficult to predict, and the pace of change is rapid, regional transport planning must be open to changes and be flexible to technological advances.

MONITORING, EVALUATION AND TRANSPARENCY

Across the examined transport literature, and in the findings of the pilot services, it became evident that ongoing monitoring and evaluation is critical to long-term success. Continued monitoring and evaluation will ensure that the services are responsive to changes regarding service routes and frequencies. It is recommended that user surveys be conducted a minimum of twice a year to understand inevitable changes in demand, and results and action decisions shared. Any publically available documentation that involves age-friendly mobility options should be promoted in a range of user-friendly formats to increase effectiveness. The creation of a publically available community document with future transport and community findings will offer residents an opportunity to see how their contribution has shaped the research.

SUSTAINABLE FUNDING SOURCE

The economic and demographic diversity of the Wheatbelt corresponds to differences in local resources and capabilities. In order to account for these differences, it is recommended that any future transport plans explore all opportunities to ease the cost burden on remote and regional transport operators. It is critical to consider funding and financing options for whole-of-life costs of the project, especially as older residents can become reliant on that form of transport to access specialist services in the future. In order to secure equitable and sustainable funding it is necessary that data collection continues, so that robust funding arguments can be substantiated with evidence. Removing the service may result in a considerable loss in welfare for which any compensation by way of an alternative program may not be able to be provided for the same low level of funding. This transport service suggests high return values from expenditure.



The **Planning and Transport Research Centre (PATREC)** is a collaboration amongst The University of Western Australia, Curtin University, Edith Cowan University, Department of Transport, Main Roads Western Australia and Western Australian Planning Commission.

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