

**Creating environments that support active
living in rural Tasmania:
Findings from a qualitative study**

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Project Details and Acknowledgements

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Executive Summary and Recommendations

This report presents the findings of a research project conducted in 2011 to identify features of the local environment that impact on participation in physical activity among rural Tasmanians. Forty-nine men and women from three distinct rural regions of Tasmania – Ulverstone/Penguin, Hamilton/Bothwell/Ouse, and Geeveston – participated in interviews in which they were asked which features of the environment supported them to be physically active, and ‘what could be done to better support them’ in leading healthy, active lives. Three key themes emerged from the findings: Functionality, Variety and Diversity, and Accessibility. These three key themes are discussed in greater detail in the Results section of this report, which has implications for health professionals, planners, urban designers, community health workers, and community development workers in Tasmania. Based on the findings of this project, the following recommendations are made:

Theme 1: Ensure functionality of infrastructure to support physical activity

- Design cycle ways and walking tracks that meet the needs of all users by ensuring they are continuous, connected, accessible and well-maintained
- Consider retrofitting infrastructure such as cycle ways and footpaths when replacing or upgrading roadways and bridges
- Position street lighting near footpaths and explore the use of solar power to illuminate cycle ways and walking tracks

Theme 2: Value and promote variety and diversity

- Promote activities that take advantage of the many natural environmental features that exist in rural areas of Tasmania
- Promote and resource structured and organised activities (such as walking groups or dance classes) through the use of existing programs and facilities
- Explore strategies to increase and maximise usage of existing sporting and recreational facilities

Theme 3: Ensure accessibility for all users

- Ensure shared-use and the promotion of family- and dog-friendly aspects when creating new or modifying existing spaces and places for active recreation
- Ensure equitable access to cycle ways, walking tracks and footpaths for those with limited mobility
- Work with local providers to improve access to local swimming facilities

Background

Tasmanians have lower life expectancies than the national average, and the overall health status of Tasmanians is more similar to that of regional Australians than to those living in metropolitan areas of other States (1). These differences are linked to poorer socioeconomic and cultural conditions, and are further impacted by Tasmania's older and aging population. Obesity levels have continued to increase in Tasmania, in contrast to the decreases or plateaus seen elsewhere in Australia. Despite these discouraging statistics, many of the health issues affecting Tasmanians are preventable through the uptake of healthy, active lifestyles.

Physical inactivity results in a financial burden to Australians of \$1.5 billion/year in direct health care costs (2), and is the fourth leading contributing factor to mortality globally (3). Physical inactivity significantly increases the risk of cardiovascular diseases, type 2 diabetes, colon and breast cancer, overweight and obesity, stroke, hypertension, osteoporosis and depression (4). It is estimated that if all Australian adults met national physical activity guidelines (at least 150 minutes/week of moderate-intensity activity) (5), one third of heart disease deaths would be prevented, along with a quarter of diabetes, a quarter of colon cancer deaths, up to 12% of breast cancer risk, and around 15% of ischaemic stroke risk (6-10).

Despite the health and other benefits of physical activity (11), less than 50% of adults in Australia are active at recommended levels (5, 12). The proportion of Australian adults not meeting physical activity guidelines is even higher among those living in rural areas (13-15). Understanding the reasons for lower levels of participation among rural residents is essential for informing the development of strategies to increase physical activity. These reasons may include a range of individual (e.g. motivation), social (e.g. support from family or friends) and environmental (e.g. availability of places to be active) factors. While environmental factors have received much attention of late, most research has focused on urban areas, with little known about the influence of the environment on physical activity for those living in rural areas. Consequently, many of the environmental factors identified in urban settings as important for physical activity, such as urban walkability scores, high residential density, and access to walkable destinations, may be of little relevance to rural populations.

Furthermore, guidelines that aim to help planners and policy-makers create environments that support physical activity, such as the Heart Foundation's Healthy by Design (16) and Healthy Spaces and Places (17), largely focus their attention on urban environments. These

guidelines aim to assist planners, urban designers and related professionals in designing built environments that enable physical activity to be incorporated into everyday life, and provide advice tailored for local government. It is local government that plays an integral role in planning new and revitalising existing public spaces. For those working in rural areas of Australia, there is limited contextual, local evidence to inform practice, meaning planners and policy-makers have little guidance when attempting to create healthy environments that support physical activity in rural communities.

The overall objective of this report is to provide guidance for health professionals, planners, urban designers, community health workers, and community development workers in rural areas to create environments that promote and support physical activity, to make 'the healthy choice the easy choice' (18). It specifically aims to identify the environmental factors that promote active living among rural adults and highlight opportunities to improve infrastructure and facilities that support active living.

Methods

Forty-nine adults from three regions of Tasmania participated in semi-structured interviews that explored physical activity and perceptions of their local environment. The three regions (**Table 1**) were selected using the Australian Standard Geographical Classification Remoteness Structure system (19): two ‘outer regional’ areas and one ‘remote’ area were purposefully selected to provide representation from across Tasmania (north, central, south) and diversity in rural region types (e.g. Ulverstone is a coastal area with significant vegetable production industry; Bothwell/Hamilton/Ouse are part of the central highlands which relies upon agriculture and tourism ; and Geeveston and surrounds comprises significant forestry industry, as well as apple and fruit-growing industries).

Table 1: Characteristics of the study areas

Characteristics	Area 1	Area 2	Area 3
Town/s in this study	Ulverstone, Penguin	Bothwell, Hamilton, Ouse	Geeveston & surrounds
Region	Northern Tasmania	Central Tasmania	Southern Tasmania
Region type	Coastal	Central highlands/lakes	Forest/channel
Industry	Vegetable production	Mixed agriculture and tourism	Forestry/Apple- & fruit-growing
Remoteness Area ^a	Outer Regional	Outer Regional	Remote
Population ^a	10,323	991	1584
Area (sq km)	131.8	336.3	3578.3
Population/sq km	78.3	2.9	0.4
SEIFA IRSD ^a	942.0	908.8	905.1
Distance from Hobart (km)	312.9	79.5	58.5
Number of Participants (male/female)	25 (10/15)	14 (4/10)	11 (2/9)

^a Based on Australian Bureau of Statistics data from the 2006 Population Census
SEIFA IRSD: Socio-Economic Index for Areas Index of Relative Socioeconomic Disadvantage; 1000 represents the national average and values can range from 900 (the most disadvantaged) to 1100 (the least disadvantaged)

Participants were recruited using advertisements in local newspapers, features on local radio, posters in various neighbourhood settings (e.g. libraries, community houses), and through networks of community members. A structured interview schedule was used to explore a range of topics with participants, including their physical activity behaviour, and characteristics of their local environment including functional aspects (eg. footpaths, street lighting etc), aesthetics, road and personal safety, availability and accessibility of places to be active, and the presence/absence of walkable/cyclable destinations. Interviews were digitally-recorded, transcribed word-for-word, and analysed using a thematic analysis approach. Approval to conduct the study was granted by the Tasmanian Social Sciences Human Research Ethics Committee, and informed written consent was obtained from all participants.

Results

This section describes the characteristics of the sample, as well as the three key themes that emerged in light of the aims of this report – Functionality, Variety and Diversity, and Accessibility.

Characteristics of the Study Participants

Participant characteristics are described in **Table 2**. The average age of participants was 45 years, and most were born in Australia. Around half of the participants had a university degree, most were employed in some capacity and were married/living as married, and around two thirds had children living in the household. All participants had access to a motor vehicle for private use, and very few had an illness, injury or disability that prevented participation in physical activity. Around one third of women and two thirds of men were classified as overweight or obese (20).

Table 2: Characteristics of study participants

Characteristics	Women (n=34)	Men (n=16)
Age, mean (min, max)	43 (26, 55)	48 (34, 59)
Born in Australia, n (%)	29 (85)	13 ^a (93)
Education, n (%)		
Low (Year 10 or less)	3 (9)	1 (6)
Medium (Year 12/ trade/ apprenticeship/ certificate/ diploma)	13 (38)	6 (38)
High (University)	18 (53)	9 (56)
Employment Status, n (%)		
Full-time work	12 (35)	15 (94)
Part-time work	12 (35)	0 (0)
Unemployed	2 (6)	0 (0)
Keeping house	6 (18)	0 (0)
Full-time study	2 (6)	0 (0)
Retired	0 (0)	1 (6)
Marital Status, n (%)		
Married/Living as married	30 (88)	12 (80) ^b
Previously married	4 (12)	2 (13)
Never married	0 (0)	1 (7)
Children in household, n (%)		
None	21 (62)	9 (60) ^b
One or more	13 (38)	6 (40)
Children in household age (years), Min, max	0.6, 26	1.5, 22
Has access to motor vehicle, n (%)	34 (100)	15 (100) ^b
Has injury/illness/disability preventing activity, n(%)	1 (3)	1 (6) ^b
Height (cm), mean (min, max)	169 (153, 184)	181 (162, 196)
Weight (kg), mean (min, max)	67 (52, 96)	90 (69, 123)
Body mass index \geq 25kg/m ² , n (%)	10 (33) ^c	11 (69)

^a Data missing for 2 participants (denominator = 14); ^b Data missing for 1 participant (denominator = 15); ^c Four participants declined to provide height and/or weight data (denominator= 30)

Theme 1: Functionality

A central theme that emerged from the analysis was the notion of functionality. Irrespective of the region and sex of participant, functionality was described by most of the participants (n=47) as being an important aspect of cycling and walking networks. While cycling and walking networks were mentioned by those from the Central and Southern regions as well, nearly all participants living in the Northern region mentioned the relatively-recently developed cycling and walking network, demonstrating broad public acceptance. Key aspects of this network were the connectivity with other destinations, the flat terrain, the distance, and the safety aspects. For example:

'...we rode out and had an ice-cream at the Strawberry Farm and rode back again. Or we've got on the bike...I have some friends that come from Eugenana out the back of Devonport and they bring their bikes and they park at Turners Beach. I ride out and meet them, we ride back in and come in for breakfast and then they ride back out again... that's why I think Ulverstone works well because it's flat and it caters for that and the tracks that the Ulverstone tracks you can go all the way from the rowing club all the way along the river and down and around and out and it's a few Ks [kilometres] worth and now out to Turners Beach and back so you can do a really good...' [Female, 48 years, North]

'It's a great ride. And you can pop your thermos in your bike basket and some morning tea and ride out there, again sit by beach, tie your bike up and sit by beach. And then ride back. So we're really grateful to the very kind people that made that track for us, 'cause it's brilliant.' [Female, 50 years, North]

'I can walk all the way out to Turners Beach on the walking track so I think personally and the use of that track has certainly – we would never go on it without there being other walkers or cyclists on it and just driving along the highway. It gets a lot of use and I think the tracks that are being done more around certainly enhance people's ability to get out there because it's – if you've got children it's safe, if you're – there's traffic, it's easy to get to, it's flat and it's well maintained.' [Female, 48 years, North]

Positive praise for cycling and walking networks was not limited to the Northern region, with roughly half of participants from the Central (n=6/14) and Southern (n=5/11) regions also commenting on cycling and/or walking networks, such as the Tassie Trail:

'Tassie Trail is Devonport to Dover...and you can walk it, horseback ride or cycle. So you can do the three. It crosses a lot of private land, so there's agreements with land owners about access and gates and all the rest of it... it actually goes up the tiers and up to The Great Lake

and to Bronte and it comes through Ouse and uses a lot of back roads, and there's a book that people can follow. So a great initiative... [Female, 43 years, Central]

'...like at Dover where they've actually done the foreshore and they've got the walk around, and the bike/running track around the bay... [Female, 52 years, South]

'We've got a Platypus Walk and there's good footpaths. Ah, there's a BBQ area in there and it's used fairly heavily...there's actually a good walking track...halfway through Franklin and at Geeveston. And it's done on crown land around Castle Forbes Bay. So the local, a little group of people got together and they just made this walking track – and it's only about a kilometre through the bush along the waterfront. And it gets used fairly extensively. People park their cars and they walk along it, they walk back, you know. It's only a kilometre but people use it. And it's nice.' [Male, 59 years, South]

Interruptions to the continuity, lack of pathways and/or other infrastructure, and surfacing were considered issues by a number of participants (n=23), predominantly females (n=9 of 11 comments) from the Central and Southern regions, but both females (n=5) and males (n=7) from the Northern region. For example:

'No, there's a couple of bits around between... Sulphur Creek and probably Wivenhoe they are a little bit scary because of like rivers or bridges going over the geographical features, the bridge themselves actually narrow the roads, so you are then forced back into the traffic. That's the only concern there. And in fact, I noticed the same thing cycling to Don a couple of weeks, everything else was OK, the cycle path was good and I got to the bridge over the Forth River at Turner's Beach, then all of a sudden there is basically no um bit on the side of the road. You're on the road. And I nearly got cleaned up by a bus going across the bridge. And I thought that's not right. There should be a rider bit there.' [Male, 50 years, North]

Many of these issues seemed particularly problematic in the Central region. This may be due to the lack of a central 'focal point' in these areas – in contrast, the Northern region has a substantial coastline and the Geeveston area also has waterfront with the Huon river and the nearby D'entrecateaux channel, both of which provide a focus and an amenable route for cycling and walking networks.

'...you can now walk down, across the river, and to the park. There's no seating anywhere in that. And there's no toilets. And, I, I do think that's really limiting when our general population's quite elderly in Ouse, and so, that, whilst it's nice, it's only half way there. And then you get to the end of the path, and you've either got to cross over a main highway, it

doesn't extend up to a, to a more open, safer area to cross, or. And so, yeah, it's not connected. It's not, it just falls short of that connection.' [Female, 50 years, Central]

'It is, it is about crossing roads. Because there are some places that ah, there is one place where you cross at the roundabout, there's not even any footpaths there. There's cars coming in all different directions and somehow you've got to get across. And it's interesting because the footpath just stops right bang where the roundabout is, where most of the traffic is.' [Male, 56 years, Central]

Another functional aspect mentioned by some rural residents, particularly females (n=18 of 21 comments), was street lighting, or a lack of, which a number of participants considered a modifiable aspect of their environment that might help them to be more regularly active.

'Street lighting is an issue. Just about every street that I've walked down in the evening, the lighting is almost always on the other side of the street to the footpath.' [Female, 41 years, North]

'...lighting, like especially now, you're walking in the dark sort of thing. Not that you want huge streetlights, but now with solar stuff surely they could have some proper lighting, you know, a bit better lighting than there is with councils.' [Female, 55 years, North]

Theme 2: Variety and Diversity

The second key theme that emerged from the data was the idea of variety and diversity of opportunities to be active. While for many rural residents the variety and diversity of opportunities for activity was limited, one positive aspect that a number of participants commented on was the diversity of physical activity options available in the natural environment. These comments were made by both females and males (n=9 and 6 comments, respectively) in the North, but predominantly females in the Central (n=6 of 8 comments) and Southern (n=7 of 7 comments) regions. Having easy access to the natural environment was deemed a positive factor, and was thought to encourage physical activity participation. For example:

'But having said that and the physical environment, you can go through up the hill a bit and go along Repulse Dam Road and that's a nearby physical environment that's quite pleasant and you can get to the water there and you can dabble your toes in it and that's lovely.' [Female, 51 years, Central]

'Well we're lucky because we're against the Dial range that we've got this amazing natural place that you can exercise, so I can drive a kilometre up the road or I can walk a kilometre up the road and I can do a bush walk to Mount Gnomon which is only an hour to the top and less coming back. And then there's a lot, you know day walks and all that sort of thing, so there's all these bushwalks in the area...' [Female, 27 years, North]

'Yes, so there are the places that we drive for bush walks because we want to go up mountains like Adamson's Peak or Mount Picton, we've got really a great place for walking living down here in the Huon; we've got so many walks in so many areas that are very accessible. So there's that or there are, where I live there are close walks, close bush walks and there are forestry plantations, the same places where we bush walk close by are the places where we ride the horses.' [Female, 41 years, South]

'Just across the river from us there's the big Dial mountain range. There's walking tracks all through there. There's also um mountain bike tracks. People can go on tracks to find fishing spots, um lots of horse riding.' [Male, 56 years North]

'... and where I live in Ulverstone is only 250 metres from the river. So I kayak, so I can just drag it down there and hop on, and off I go, and go and explore...And the beach, you can walk a couple of kilometres on a stretch of beach here, and so ... I take the dogs on a long walk on the beach at least once a week, sometimes twice.' [Female, 51 years, North]

While most participants were able to list at least one place to be active in their region, it seemed that the lack of variety of options available in rural areas was an important barrier to participation in physical activity. A number of suggestions were made for structured or organised activities that would help facilitate participation in physical activity.

'... maybe if there was a walking group of like-minded souls perhaps that I thought I could engage with that was at an appropriate time of the day or something, maybe yeah.' [Female, 51 years, Central]

'...Zumba's really popular these days, if someone did a class every Wednesday night at Ouse at the hall then I would go. But we don't have that at all. And I think a lot of other people would too.' [Female, 43 years, Central]

'But I think you know if they had badminton or if they had Tai Chi or if they had aerobics or something and it was... I think that would really make it easier for me to access and more likely to...also you asked the question about neighbourhood or community I think those things would build a sense of community. Especially among women. So in an ideal world if you have a good sized hall or something and somebody that's taken the initiative or funded to provide

you know a couple of different whatever. Then they would all create a meeting place, especially for women. So I think that would have the dual effect of increasing physical activity but also connections amongst people.' [Female, 35 years, North]

The positive impact that structured activities such as walking groups can have was highlighted by one participant:

'...I think it was about... the third walk, a lady came along to join the group, having been coerced by one of the group that had done the first three walks as something she should do. And she came and she was, she's morbidly obese, five different chronic conditions, and the set walk for that day was to drive about five kilometres up a hill and then walk the last two. That's what they decided they were going to do.Anyway, we duly, she made it. And she was so pleased with herself that she'd made it. And she has maintained walking ever since. And now you go with that group, and they start at the beginning of the five kilometre drive and walk the seven up...' [Female, 50 years, Central]

Some participants (n=16; 13 female) from each of the regions indicated that the availability of additional sporting infrastructure would assist them in participation in physical activities.

'If we had a tennis court we might be able to hire that, because my daughter – middle daughter – is learning how to play tennis. I mean I use to play tennis, so we could hire it on the weekends, or have a go at that.' [Female, 46 years, South]

'However if it's the lack of availability as well I think. If there was a netball court down the road that did it, two minutes down the road then I would probably play netball one night a week and if there was a tennis club or just people doing social tennis on a Monday night I would block that out in my diary and childcare wouldn't be an issue. I'd be home and it would be two minutes and I'd be back home again.' [Female, 42 years, Central]

'... if we had a couple more like tennis courts or even a um, somewhere to hit a ball up against or something like that. I notice that down at Glenora school they've got plenty of tarmac area but no actually lines marked or tennis nets or you know like, anyway.' [Male, 53 years, Central]

Theme 3: Accessibility

The third key theme to emerge was Accessibility. Many participants highlighted the importance of shared-use areas, indicating that their environment was accessible for both families and people with dogs (n=23 and 18, respectively), which encouraged participation in physical activity. These comments were made by both females and males in the North (n=14 of 23 comments made by females), but more commonly by females in the Central (n=8 of 9 comments) and Southern (n=8 of 9 comments) regions. For example:

'...the coastal pathway project. That is exciting, because there'll be kids there, there'll be families can do short walks, they can do long walks, you can go from one end to the other. You can just peg a section out that you want to do, and just do it. And there'll be other cyclists there. It's just fantastic. Looking forward to that.' [Female, 51 years, North]

'It takes about twenty minutes to walk there. And um, also there Tynwald Park which is great for families and things. So families get down there, have BBQs, play sport, and run. Ah, there are a number of different ovals down there. And there's that water track that goes beside the river.' [Male, 56 years, Central]

'It's got a nice big park behind it so you do see families with picnics and sporting, so that's always nice to see and people walking their dogs...' [Female, 52 years, South]

'...they do have a designated dog walking beach. Um, and you know because we walk during winter, really the only people we see walking generally are people walking their dogs. Um, so I think if that policy wasn't in place and they said no, there is no dog walking on beaches, I think you would certainly cut back a lot of the, the people that do access a lot of the walking facilities because it's a dog friendly town. Or designated areas that are for dogs. I think that's the important one to ah, give them a pat on the back for, and to look at other communities, it does encourage people to use those facilities.' [Male, 52 years, North]

'...we have a couple of dog-friendly beaches here, so that makes it easier to go and if they're on a lead or the tracks are – and cause you're not walking past houses and yards and things like that – so if you're taking animals for a walk it's a lot easier cause I take my daughter's staffy [Staffordshire Terrier] so when I take him, if you're not walking past people's houses and where there's other animals all the time and cars, then it's a lot easier to take your dog for a walk. You're more inclined to if it's animal friendly.' [Female, 48 years, North]

In contrast, some participants raised equity concerns related to restricted accessibility for people who are mobility-impaired, or for people with young children to participate in physical activities.

'I know when my daughter was a big younger, it's a bit tricky; it's a bit hard pushing a pram around. There are spots in town that have footpaths but then there's spots along the way where there's like a flight of ten steps to clunk your pram down or there's a section with no footpath across a bridge or something like that. So there are obstacles, reasonably frequent obstacles along the way to, if you want to sort of walk with a pram type vehicle, if you want to carry a child no worries but yeah, walking with a pram, it can be a bit difficult.' [Female, 36 years, South]

'Some of our older style footpaths are a bit sudden, they don't have that sort of easability [sic] to get anything wheeled on or off. You know, scooters, wheelchairs or whatever... [Male, 47 years, North]

'...one thing that I hadn't really thought about until I had a diabetic on one of the walking groups, and he actually had to stop because, a lot of it was on gravel roads, and it hurt his feet too much. And his, he didn't have good feet anyway because of his diabetes, and he just found it too hard. ...And, so they, they are issues that do prevent people walking, who have got some form of chronic condition, maybe, or whatever.' [Female, 50 years, Central]

Interestingly, limited access to swimming pools was a common theme identified by a number of participants (n=16; 7 females, 9 males), and particularly by males in the Northern region (n=6 out of 9 comments). These participants mentioned that while swimming pools were available in their area, they were largely inaccessible due to limited hours of operation, closures during winter, and lack of heating (an issue of particular note in winter), highlighting that accessibility, not just availability is important for physical activity participation.

'Oh the thing that would make an enormous difference to me – and I've tried to arrange it is if it's possible to swim in the morning. There's a swimming pool locally, and that's the case in most towns, but it really doesn't suit me to be doing it during the day or of an evening. But from sort of 5.30 in the morning until 6.30 I've got an hour that I could go and swim. But that, I think that would be a wonderful opportunity if that were made available to not just men, but women, who work. And it wouldn't really take a lot of organising.' [Male, 55 years, Central]

'It's only open during summer understandably because it's outdoors and not heated particularly well ...' [Female, 28 years, Central]

'...I was doing swimming, but the cold drives a lot of people out – the water is just so cold down there. It's supposed to be heated, but you still freeze, it's still cold. And a lot of people say nuh [no], they don't do it this time of the year, they only do it in summer when it's hot...' [Female, 50 years, South]

Discussion and Conclusions

The objective of this report was to provide guidance for those working in rural areas to create environments that promote and support physical activity. This report identified three key themes outlining a number of environmental factors that promote or conversely restrict physical activity of Tasmanians living in rural areas, uniquely provided through the voices of rural Tasmanians. **Functionality** was a key aspect of the built environment that was considered to act both favourably and negatively on physical activity behaviour. The **variety and diversity** of opportunities to be active in the natural environment was considered an enabler to physical activity, but the limited diversity of structured or organised activities and of sport and recreational facilities in rural areas was considered a barrier to physical activity. **Accessibility** was an important concern, with shared-use areas considered beneficial, but equity concerns for those with limited or impaired mobility were raised, and the lack of access to (not availability of) swimming pools was deemed a barrier to physical activity.

While some of the factors that support or hinder physical activity have been identified in the urban literature, such as the functionality aspects of walkways and cycleways (e.g. connectivity, continuity, surfacing, maintenance) and street lighting, many appear uniquely rural. For example, easy and convenient access to bushwalking and horse riding tracks and trails, mountain biking tracks, and waterways for kayaking is a distinctive benefit of rural life in Tasmania that may not be so readily accessible for urban-dwellers. Supporting and promoting the local community to utilise these existing physical activity opportunities represents a low-cost strategy to promoting physical activity among rural Tasmanians. Similarly, tapping into existing programs such as Heart Foundation Walking groups, and the promotion and resourcing of activities that utilise existing infrastructure (such as community halls for dance classes), supports structured and organised activities within the community. Working with local providers to improve access to swimming facilities (including opening hours and heating), particularly in the colder months, may also represent a popular avenue for physical activity promotion.

The findings support two of the seven planning considerations detailed in the Heart Foundation's (Tasmania) 'Healthy by Design' guidelines. Even though these guidelines were created for use in urban environments, it appears that some of the concepts and principles are transferable to rural communities, particularly town centres and common meeting places. For example, the findings related to the functionality of cycling networks and walking tracks in this study directly support the 'Walking and cycling routes' planning consideration of the Healthy by Design guidelines. This consideration promotes making connections, creating

stimulating and attractive routes, creating safe and functional routes, maximising accessibility of walking and cycling routes for all, maximising legibility of walking and cycling routes, providing shared paths to accommodate different modes of travel, and promoting walking and cycling routes. The 'Supporting infrastructure' planning consideration also has relevance to the findings of this research project. This consideration promotes the provision of seating for people with restricted mobility and to encourage social interaction, providing signage to assist with way-finding on foot and bicycles, providing and maintaining lighting to routes and spaces used at night to increase safety, using planting to improve the microclimate and increase the legibility and attractiveness of routes and spaces, ensuring fences and walls contribute to safety and attractiveness and maximise connectivity, and providing facilities that encourage and support cycling and walking.

Potential limitations of the study should be noted when interpreting the findings. For instance, data were drawn from a relatively small sample of Tasmanians who may not be representative of the population as a whole. However, there was diversity in a number of sociodemographic and behavioural characteristics, such as age, education, employment status, perceptions of the environment, and physical activity levels. Participants were asked questions directly related to environmental constructs commonly studied in the urban literature, which may not have allowed for other themes to emerge. Participants were however encouraged to make further comments about their physical activity and their environment, and were given many opportunities to add their own narratives about their physical activity places and spaces.

While taking these limitations into consideration, the insightful observations provided by the rural Tasmanians in this research project addresses some of the gaps in local knowledge about environmental barriers and enablers to physical activity in rural areas, and provides insight to inform planning and design of local communities that will support and promote healthy, active lifestyles. This information has enabled the formation of recommendations for planners and designers working to create healthy spaces and places for the Tasmanian community. The adoption of some or all of these recommendations may provide opportunities for rural residents to increase their levels of physical activity. Increased physical activity has a direct health benefit to individuals and the broader community, and has the potential to significantly reduce the financial burden on the Tasmanian healthcare system into the future.

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